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Playing the Text, Performing the Future

Narrating Futures

Edited by
Christoph Bode

Volume 2

Felicitas Meifert-Menhard

Playing the Text, Performing the Future

Future Narratives in Print and Digiture

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1 Introduction: Narrating the Future in Text

In his novel *Hortense is Abducted* (1989; published in the French original as *L'Enlèvement d'Hortense* in 1987), Jacques Roubaud sketches the design for a book that comes into being through the choices of its readers, a book created through individual selections from a multitude of possible options:

I would have liked very much to explore certain of these parallel fictional universes, and I had proposed to my Publisher, in spite of the enormous amount of additional work it would have imposed on me, to furnish him with an absolute forest of multiple diverging and reconverging tales, with approved spatio-temporal travel maps, and a guide provided for the tourists of the fiction. The same unchangeable book would not have been stupidly printed for everyone but, rediscovering good old thirteenth-century customs (it was only yesterday), during the age of manuscripts, each reader would have his *own personalized book*. The book would not be available in stores. Or rather, in good bookstores, you would have had the chance to choose: either in the standard edition, everybody's book [...] or else you would have placed an order for *your* edition, chosen according to a 'menu' of possible for kings in the course of the tale. This copy *would not yet have been printed*. By pressing here and there on a keyboard, the bookstore clerk would have transmitted to the computer-printer the specifications of the novel chosen by the customer and at once, thanks to modern typesetting/composition processes, vroom, vroom, the book would be on its way, and it would arrive in no time. (75–76)

This custom-made text, emerging from personal choice rather than authorial command, allows room for what traditional storytelling cancels out: the offering of diverse alternatives budding from one narrative stem, selected according to the reader's own preferences. The essential features of these "multiple diverging and reconverging tales" – structural variation, multiplicity, choice, bifurcation, and emergence – are features that characterize a mode of narration which steers away from condensing multiple options into one coherent storyline and toward the staging, indeed flaunting, of not-yet-realized options as potential continuations of a given situation. Roubaud describes, in other words, the quintessential future narrative.

Telling the future *as* the future is what differentiates the category of future narratives from traditional, i.e. 'past' narratives, which may tell the reader something *about* the future if they are utopias, tales of time travel, or science fiction, but do so from a retrospective point of view.¹ In other words, the intrinsic

¹ In this context, Ryan rightly argues that "[s]etting events in what is from our historical point of view the future does not necessarily result in a prospective narrative [...]" (*Avatars* 15). That is, the thematic exploration of future states, occurrences, or time periods does not make a text into a future narrative, as the narrative mode of such texts is typically the past or present tense, and these texts do not offer structural multiplicity.

openness of situations and essential unknowability of events yet to come may be reflected thematically in past narratives (PNs), but they are not *performed* in these texts, as they report events that have already happened at the point of their telling. Future narratives (FNs), on the other hand, do not (necessarily) consider the future as a topic; they do, however, structurally stage the future as a space of possibility. This is achieved by presenting at least one situation within the storyline (I will shortly specify what exactly this ‘situation’ entails) from whence a progression in two or more different directions is possible. To offer a more formalized definition: FNs can be defined as containing at least one *nodal situation* (or *node*, in short) that allows for more than one continuation.² Regarding the corpus of text-based FNs examined in the present study, this nodal situation can include, among other things, a directive to choose between two options in a Choose-Your-Own-Adventure (CYOA) gamebook (‘If you want to fight the dragon, go to page *x*’ versus ‘If you want to return home, go to page *y*’), the presence of links in a hypertextual narrative, or the offering of unbound text segments to be shuffled at will (in B.S. Johnson’s loose-chapter novel *The Unfortunates*, for instance) – in sum, any condition that enables multiple possibilities of continuing a narrative.³ Indeed, it does not even necessarily have to be the reader who decides between the individual continuations: some FNs leave the choice to a character within the story, or, indeed, to the text itself (a prime example is Stuart Moulthrop’s hyperfiction *Hegirascope*, where the electronic system automatically selects a link if the reader fails to do so within 30 seconds). The crucial point to make is that the node is the smallest unit of any FN, no matter into which medium that FN is inscribed, no matter whether we call it fiction or non-fiction, and no matter which subject it thematically revolves around. In their formal privileging of openness, FNs can be understood as the diametrical opposite of traditional notions of plot as “an integrating dynamism that draws a unified and complete story from a variety of incidents, [...] that transforms this variety into a unified and complete story.” (Ricoeur, *Time and Narrative* 8)⁴ In FNs, this unified story is split open into a stratified variety of options. Whereas in traditional fiction, all possibilities merge into one consistent story line, in future narratives, the story line spreads into multiple continuations, into not-yet-realized possibilities. The central structural movement of these texts is thus *branching out* rather than *closing in*; the emphasis is centred on the potential of a situation to generate diverse outcomes.

² This concept of the node will be further described in Chapter 3.

³ A more detailed survey of nodal situations in textual FNs is provided in Chapter 3.7.

⁴ Also see Morson (*Narrative and Freedom* 20) on this point: “Lives include all sorts of extraneous details leading nowhere, but good stories do not.”

A word on the term ‘narrative’ seems to be in order here, since the research project *Narrating Futures* (NAFU) has identified a new narrative genre (which does not mean that FNs *themselves* have not been around for a long time – they have –, only that they have never been systematically categorized as a separate genre). A much debated concept, narrative is an intensely ‘productive’ term as it persistently encourages and generates new definitions and conceptualizations: it has been identified as the basis of human thought (H. Porter Abbott), as spanning across genres, media, and societies (Roland Barthes), as the means by which we coordinate and understand our temporal existence (Paul Ricœur), and as the cognitive creation of a world that must contain a temporal dimension and allow interpretative activity (Marie-Laure Ryan), to name only a few approaches. From broadly essentialist views like Abbott’s to more concrete definitions like Ryan’s, narrative seems to be, at one and the same time, ubiquitous and difficult to capture. Adding another definition to this canon may initially appear to only raise another voice in the polyvocal meta-narrative *on* narrative; however, it is unavoidable to classify what exactly we mean when we talk about narrative before introducing a whole new class of narratives (that is, *future* narratives) which both play and change the game of storytelling in significant ways. For this purpose, it may be helpful to look at the other side of the narrative coin and realize that while nothing is intrinsically narrative, anything can be *read as* narrative by a perceiving agent. Narrative can be classified as the mental and/or linguistic linking of any two events, but ultimately, it always depends on a human consciousness to provide this linkage. This is what Abbott has classified as ‘narrative perception’: narrative is “virtually built in to the way we see” (6), and while we must not necessarily ‘see’ narrative anywhere, narrative lurks everywhere as possibility, a potential waiting to be activated. Indeed, our propensity to link *any* two events – as disparate as they may first appear – to form a narrative is deeply inscribed into our identity as human beings, because

[...] we are absolutely hooked on narratives. We see them wherever we can, we respond to the slightest suggestion (like a patient in a Rorschach test, who is shown an abstract ink blot and is asked to interpret what he sees). We do what our software allows us, indeed forces us to do: we seek possible links, patterns, connections, *Gestalten*: we seek meaning. (Bode, *Future Narratives* 1.2)⁵

With this in mind, it becomes clear that FNs, as described above, *are* indeed narratives: though their characteristic trait is the implementation of nodes, they are, of course, not devoid of events – and these events can be linked, through the

⁵ All references to the other volumes of the *Narrating Futures* series will be provided in the form of section numbers instead of page numbers.

negotiation of nodes, to create different sequences (i.e., different stories). Indeed, FNs exemplify the nature of narrative as *potential* to a radically heightened degree, as they literally present possibility by replacing uni-linear definitude with optionality ('things can go this way, or that way, or...'). Nobody *must* engage with the nodal structure of a FN and select options for continuation – in this case, the narrative remains unactualized –, but as soon as the reader accepts the text's invitation to play with different possibilities and paths, she will inevitably create a narrative experience, irrespective of the medial context the nodes are situated in (text, film, or video games, to name only a few). The structural 'openness' of FNs thus does not prevent the generation of narrative, but, on the contrary, may entice us to perform connective acts even more forcefully than a conventional uni-linear novel.

The view of narrative proposed here – which is, of course, heavily informed by cognitive narratology (cf. Herman; Jahn) – also helps to understand the diversity of the corpus presented in this study of textual FNs. Grouping such radically different phenomena as the print novel, electronic fiction (combined under the heading of 'digiture,' a neologism coined to capture not just hypertext fiction, but also all other types of digital narrative, including interactive fiction, the visual novel, and more) and the alternate reality game (ARG) under the heading of *future narrative* may be difficult to fathom for even the most open-minded reader expecting a narratological evaluation of a new type of storytelling. Are these really all narratives, and are they interrelated enough to be pooled in a survey of any kind? The answer to these questions is a definitive yes – and for (at least) two reasons: firstly, it should have become clear by now that our definition of narrative as *any two events that can be cognitively and/or linguistically linked* is an umbrella wide enough to accommodate even such comparatively ephemeral and disparate processes as the ARG (here, too, events are linked by a group of players to create a collaborative, multimedial narrative of problem-solving). Expanding the concept of narrative this far is not an arbitrary move to include as much material as possible, but, on the contrary, serves as impressive evidence of the universality of storytelling – again, keeping in mind that nothing *is* narrative intrinsically, but anything *can be* narrative if there is a perceiving agent who is willing to perform the act of meaningful linkage. Secondly, all artefacts treated in this study have in common as a basis their reliance on the presentation and generation of *text* in a narrow sense of the word (text as written material that can be preserved in some way). This reliance on text excludes, for example, oral storytelling, which undeniably generates narrative, but not 'text' in this more restrictive sense (unless, of course, someone writes the oral narrative down – but then all we are left with is a PN). It also serves to draw boundaries to the large (and, in many ways, interrelated) field of computer gaming (obviously, computer games can also tell stories, but their

presentation is not based on written text, nor do they necessarily create such text) and film (the same argument applies here). The category of *textual future narratives* considered in this part of the *Narrating Futures*-series thus encompasses all forms of narrative which operate with written text as their primary means of communication. The variety of media included in this approach – from the hard-copy book to the computer and mobile platforms such as the iPhone or iPad – testifies to the fact that textual FNs are literally ubiquitous within the narrative cosmos, testing the limits of bound pages in print novels, gaining full force in the electronic realm, and expanding into unprecedented forms in multiuser digitality, with thousands of players creating ever new textual artefacts on- and offline. FNs are everywhere, and they raise a multitude of questions about the relation between time and narrative, about the necessity of closure and structure, and about the relationship between narrative and life. These questions stand at the heart of this book, which examines future narratives in text from a structural point of view and provides a comprehensive overview of the many different implementations of this new genre in the fields of print, digitality, and collaborative storytelling.

The evaluation of how the future can be staged as truly ‘open’ in text must begin with a closer look at the difference between what Morson has termed “the difference between the shape of narrative and the shape of experience” (*Narrative and Freedom* 38) – that is, between the conceptualization of narrative as an aesthetic product and the view of (real-life) experience as an ongoing process. How can a narrative text, in other words, preserve the characteristic features of the future – its openness, undecidability, unpredictability – while remaining an aesthetic artefact that has hitherto been closely associated with sequentiality and retrospectivity? This question will be dealt with at length in Chapter 2, which looks both at the future as a temporal phenomenon and at the possibilities of reconciling this phenomenon with existing definitions of narrative. This chapter closes with the contextualization of FNs within previous attempts to classify temporally open, multipath, choice-determined texts. In particular, Hilary Dannenberg, Espen J. Aarseth, Marie-Laure Ryan, and Janet Murray have provided valuable and ground-breaking insights into the nature of texts that stage multiple possibilities, offer different reading paths, and engage the reader through decision situations and interactivity. Much of this study is indebted to their work, which has paved the way for considering the structural specificities of FNs as a variant of multi-linear narration, and provides important analytical concepts such as ergodics, interactivity, agency, and immersion that play a crucial role in the assessment of future narratives’ potential to create participatory reading experiences.

Chapter 3 begins with a second look at the relationship between narrative, retrospectivity, and the structural openness of FNs, this time under a more explicitly

media-specific perspective. In how far is the structural implementation of openness compromised by the physicality of the bound book? What changes when we switch media and look at electronic textuality? Which textual medium allows for the highest degree of consequence within choice situations? How, in short, can structural openness be implemented in different textual media, and to what effect? The issue of medium-sensitivity, of utmost importance to FNs as a genre that comprises such varied forms of storytelling as print literature, hyperfiction, films, and computer games, surfaces recurrently in the present study, which itself features many different variants of text-based storytelling forms that must always be regarded in light of the medium they are inscribed into. Chapter 3 then moves on to provide the structural backbone for the analysis of FNs as a textual phenomenon; the basic element of any future narrative – the node – is examined as a constituent of print, digital, and performative-collaborative modes of storytelling. As has already been clarified earlier, any narrative that counts as a FN must contain at least one node that allows for multiple continuations of a given narrative strand, and such nodes can be of a very different nature in the different media analysed within the scope of this book. How nodes are functionalized in textual FNs, and how the reader is made aware of them and enabled by them to become an active shaper of the storyworld, constitutes the focus of the discussion of the node; of equal importance is the question of how nodes can be connected structurally in text, and how these different structures (the arborescent, or tree structure; the network structure; the axial structure) affect reader navigation and the weight of consequence effected by individual choices.

Chapter 4, finally, provides a comprehensive typology of how the future can be narrated in text, beginning with texts that are *not yet* future narratives, but approach the genre either thematically or formally – such as novels dealing with chance and/or randomness, or novels featuring an ending that is left open, undecided, and on which the reader can speculate in the manner of cognitively creating continuations. Multi-linearity is then formally introduced by way of forking-path texts and the Choose-Your-Own-Adventure genre; these are early printed attempts at effectuating structural openness in the print medium, and, indeed, early examples of FNs in text. Novels structured after specific games (card games, for instance, or combinatorial texts) also involve the reader as player in the creation of narrative content; the examination of printed texts as FNs closes with the multimodal novel, in which the reader is called upon to navigate between different (visual, verbal, graphical) semiotic modes. The switch over to the field of digital narration is a significant one in many respects: as the consideration of various forms of electronic storytelling will show, the ease with which future narration is possible increases considerably when narrative happens digitally, as the node constitutes the central structural element of any electronic text. Forms

such as interactive fiction, hyperfiction, and the visual novel implement formal openness by linking story material which the reader can only access gradually by engaging with the continuation-by-choice format of these texts. Digital narratives are thus structurally more apt to create interactive, multi-linear reading experiences, but one considerable shortcoming that surfaces especially in hyperfiction is that these interactive experiences often do not effect *meaningful* choices on the part of the reader, who can choose where to go in the text with the utmost degree of freedom, but may never feel that her decisions matter for the story-world. Again, the issue of consequence surfaces as one of the most important aspects of FNs as a whole, and it is one that proves particularly problematic in digital text forms. The typology of future narratives closes by straining against the boundaries of textuality, evaluating collaborative and performative modes of storytelling such as the pen-and-paper roleplaying game and the alternate reality game in their roles as generating emergent, feedback-determined, and genuinely open stories. Individual readings of paradigmatic textual FNs constitute the last part of this study; from thematic explorations of choice and chance to Choose-Your-Own-Adventure books and forking-path novels, digital hyperfictions, and interactive fiction, these readings show how the future can be told in different media, different genres, and with different degrees of radicality.

The aim of the present study is thus twofold: first, to assess and situate textual FNs as a novel genre of storytelling within the context of existing narratological conceptualizations; and second, to provide specific examples for this newly identified genre wherever possible. The fact that some text forms – such as the Choose-Your-Own-Adventure book or hypertext fiction – are examined in more detail than others results from the circumstance that these variants prove especially pertinent to the staging of possibility and multiple continuations; for reasons that will be expounded throughout this book, not all forms of textuality are able to functionalize structural openness to equally successful degrees, or have done so with equal prevalence. The fact that I take into consideration ‘simple’ children’s books – the CYOA series was popular in the late 1970s and throughout the 1980s and mainly targeted to children between the ages of 10 and 14 – as well as aesthetically dense and convoluted hyperfictions such as the work of Michael Joyce or Stuart Moulthrop testifies to the interest of this study in FNs as a *structural phenomenon*; I do not weigh these genres against each other by their ‘literary value’ as aesthetic artefacts, nor am I primarily interested in aspects such as semantic complexity or interpretative potential. The main focus of reading these (and other) text forms as FNs lies on how they employ nodes and realize choice situations, and how reader navigation is influenced by individual nodal structures and the issue of consequence which results from these structures. The enabling of possibility rather than the providing of closure is what makes

FNs unique, and the ways in which they enable this possibility proves to be the central question in a comprehensive analysis of the genre.

Before this analysis can begin, a note on the terminology used to characterize the ‘recipient’ of a future narrative: so far in this introduction, she has been referred to as a ‘reader’, but even a brief glance at the spectrum of texts covered in this book reveals that this term does not manage to map all possible roles that she may take on within the corpus of textual FNs. Is the recipient of an interactive fiction, for example, really ‘only’ a reader? Or does she, in her engagement with the game’s parser, turn into a player of sorts? And what about printed gamebooks? Can one merely read a Choose-Your-Own-Adventure tale, or does one have to play it to some extent? The insufficiency of the term ‘reader’ becomes most apparent in collaborative, performative forms of storytelling such as the alternate reality game, where participants must take on the role of reader, player, even writer, all at once. To designate the position of the recipient of a FN somewhere on the gradient between reading and playing – future narratives can, in fact, seldom *only* be read, since they most often effect at least a minimal degree of navigating between nodes and making decisions on how to continue –, the term ‘reader/player’ is introduced. This conjoined idiom acknowledges the hybrid mechanism effectuated by textual FNs, though ‘reader’ and ‘player’ are also used separately whenever one of the two roles dominate (the former in print fiction, for instance; the latter in more openly ludic forms such as interactive fiction or alternate reality gaming). Occasionally, the reader/player is also identified as a ‘user’ in digital forms of storytelling, but it should always be clear that the dominant mode of reception is that of fused reading and playing. It is one of the most striking characteristics of FNs that they tease the recipient out of her complacent role of reading for the plot (or, even more specifically, reading for the end), and compel her to actively engage herself with the structural possibilities of the text. The role of the reader as player will again be focused upon in Chapter 3, but this preliminary identification of her double status already anticipates the double nature of FNs as text *and* game.

The implementation of choice and openness in text is an idea that, for surprisingly many reasons, takes some getting used to – though, as readers of literature, we have been trained to follow multiple plot lines, assess our identification with individual characters, and even accept narrative disturbances such as unreliable narrators or metafictional illusion breaking, we are not easily prepared to decide how a text should continue when it offers us several possibilities. This offering of possibility turns the spotlight away from the fictional world and onto *us*, and we suddenly find ourselves being granted constitutive power over story development, something that we usually think is reserved for the author of a tale. While participatory engagement with a storyline has become habitual, even addictively

enticing, in the world of computer gaming, the world of text has hitherto been regarded as one in which we can wander, possibly even lose ourselves, but which we are usually unable to directly affect. The power and fascination of FNs lies in exactly their function as mechanisms of enablement, and with this function, they constitute a truly new way of looking at what storytelling can allow us to do. How this new direction of textuality can be reconciled with previous conceptualizations of narrative shall open the discussion of FNs as a genre in the next chapter.

2 The Tellability of the Future

The term ‘future narrative’ combines two words that are loaded with conceptual connotations and have sparked an enormous amount of definitory multiplicity; the latter has already been tackled in the introduction of this study, where it has been described as the mental and/or linguistic linking of any two (or more) events by a human agent. This view of narrative can be seen to include both past and future storytelling; however, what remains to be evaluated is the tension that arises between what Ryan calls “standard written literary fiction based on the illocutionary act of ‘telling somebody that something happened’” (*Avatars* 97) – what is, in other words, understood as narrative or retrospective storytelling in the traditional sense – and the staging of possibility that FNs perform structurally, through the inclusion of nodes. The *material* hindrances that the print medium encounters when attempts are made to break through sequentiality and replace it with multi-linearity are evaluated in Chapter 3; the more obviously theoretical issues inherent in trying to reconcile narrative and structural openness will be the focus of what follows here. The first part of the term ‘future narrative’, too, deserves more detailed attention as a historical phenomenon and theoretical concept; the classification of a FN as any narrative that allows for more than one continuation elevates the issue of futurity and the openness of temporal developments from a merely thematic aspect to an integral part of the textual structure. The (generally somewhat vague) term ‘openness’ here specifically refers to the fact that the text is not bound to one single version of the narrated events, but can unfold and present multiple versions of these events, any node providing the possibility to take at least two different routes through the story. How the fictional universe will be encountered and traversed depends on the decisions of an agent negotiating the nodal situation(s) and is thus genuinely ‘open’, i.e. not yet decided, at the beginning of the reading or playing process – exactly in the same sense in which the future is routinely conceived of as open and undecided from the standpoint of the present. After outlining the shape of the future, this chapter closes by embedding FNs within a broader context of theories that deal with mechanisms informing this newly identified genre, including Aarseth’s influential concept of ergodic literature, which bears some important similarities to our conceptualization of FNs, as well as the more reader-oriented notions of agency and immersion that Murray has identified as viable elements of interactive storytelling. While none of these approaches is able individually to cover the full theoretical scope of future narration, each fruitfully contributes to a deeper understanding of this newly identified genre, which itself can be seen as uniting and referring to many different conceptual mechanisms dealing with temporality, structural multiplicity, and reader (inter-)activity.

2.1 The Shape of Narrative – The Shape of Experience

Structurally simulating the undecidedness of future occurrences within a narrative text seems, at first glance, to be an impossibility by definition. Ryan points us to this ostensible impossibility when she constitutes that “life is lived looking forward, but it is told looking backward” (*Avatars* 78), and it is this aspect of retrospection which is regularly postulated to be inherent, even essential, to any narrative representation in traditional classifications of the term.⁶ When H. Porter Abbott defines narrative as “*the representation of events or a series of events*” (13), the fact that these events must be past at the time of telling is signalled by the very word representation: this is, literally, the presentation of something that has already happened. Narrative, to Abbott and many other theorists of the genre, is the ‘emplotting’ (to borrow Hayden White’s term) of single events into a meaningful temporal sequence; it is “*the principal way in which our species organizes its understanding of time.*” (3) Such a retrospective organizational principle, fundamental to who we are as human beings, is arguably at odds with notions of presentness, and, even more strongly, with futurity in storytelling. Abbott, in fact, explicitly addresses this claim when he contrasts narrative with events taking place in the present and asks: “If things are happening right now for the first time, do we call it narrative? Do we refer to our lives, for example, as narratives?” (35) Not surprisingly, considering Abbott’s definition of narrative as representation quoted above, his answer must be ‘no’: life does not qualify as narrative because “there is no pre-existing story” (36) – nothing, in short, to be represented. Currie makes a similar argument about the discrepancy between narrative and the future when he observes that “[t]he unreality of the future, its openness, contrasts with the already-there-ness of the future on the reel of a film, and by extension with the already-there-ness of the future in writing [...]” (19). This sense of an *already-there-ness* appears to intrinsically prevent the development of new (and potentially unexpected) situations and events in narrative fiction, as everything has unalterably set and congealed before we even come into contact with a narrative text for the first time – even if this text tries to feign simultaneity by using the present (or even future) tense.⁷ Narrative, in conventional concep-

⁶ Ryan further observes: “While the laws of material causality operate forward, the laws of narrative, artistic, textual, or more generally of communicative causality operate overwhelmingly backward.” (*ibid.*) Bode argues that “in narratives coincidences are retrospectively transformed into a chain of causes and effects” (*The Novel* 16) and terms this ‘narrative necessity’ (cf. 27).

⁷ Again, see Ryan (*Avatars* 79): “Because of the dualism author/narrator, present-tense fiction is really a disguised form of retrospective narration.” According to Ryan, the closest approach of traditional narrative mechanisms to an effect of true simultaneity happens in the form of “live broadcasts, particularly radio broadcasts of sports events. [...] A live broadcast may be compared

tions of the term, presupposes *already-there-ness*, can only depict that which has come before – even if, as Abbott also acknowledges, “the story only comes to life when it is narrativized” (20); when there is, in other words, discourse.

Narrative is therefore generally seen to privilege solidified closure over the display of emergent possibility, as it “lacks the ‘feature’ of allowing modifications to [...] stories.” (Frasca 211) This standpoint also implies that, as the quotation from Abbott above has already demonstrated, narrative diverges sharply from life itself, because “[c]losure and structure belong to the author and testify to the artefact. They mark the difference between [...] the product of narrative art and the process of living.” (Morson, *Narrative and Freedom* 38) One of the most defining criteria of real-life existence, namely, that we can never fully know what the future will hold, is thus discarded in conventional storytelling for the sake of coherence and unity: the aesthetic artefact is a finished product, not a process (and this applies most strongly to the quintessential narrative genre: the printed novel).⁸ Exactly this difference between product and process, however, is what marks the distinction between PNs and FNs, as FNs do not *represent* a *product*, but allow an agent (the reader, or an in-text character) to *activate* a *process* – the process of negotiating nodal situations, that is. FNs centre on a notion of structural potentiality that seems to be lost in traditional narratives; they preserve what Mikhail Bakhtin has termed ‘eventness’, or “that moment of Being which is constituted by the transitiveness and open eventness of Being.” (*Philosophy* 1) Admittedly, Bakhtin’s concept of eventness as the potentiality of any given moment in life to generate something genuinely new goes far beyond the scope of nodal situations, as his concept characterizes an intrinsic quality of ‘now’ in general and not a quality of (future) narratives in particular; nonethe-

to a computer program operating in ‘real time’ [...]” (*ibid.*). Here, the shape of narrative is nearly identical to the shape of experience, and “the delay between the time of occurrence of the narrated events and the time of their verbal representation strives toward zero [...]” (*ibid.*). The commentator must be able to spontaneously react to emerging situations, of which she has no prior knowledge (aside from being familiar with the rules of the game and its general progression – start, duration, rounds etc.), and she has very little or no time to narratively encode her observations into a retrospectively arranged sequence – she must tell the game as she witnesses it. Plotting and teleology thus yield to spontaneous commentary and a sense of immediacy of narration. Also cf. *Narrating Futures* Vol. 1, section 1.2.

8 This is not to discount the experience, of course, of not knowing what will happen in a novel until one has read it from beginning to end – this mechanism of suspense-creation is inherent to almost any encounter with narrative fiction. However, what is of interest here is the novel as a *materially* ‘finished’ object in the sense that it contains a completed story that is unaffected by the reading process as such (and this is where FNs differ significantly).

less, Morson's characterization of eventness reads strikingly similar to how we conceptualize a FN:

For there to be eventness, there must be alternatives. Eventful events are performed in a world in which there are multiple possibilities, in which some things that could happen do not. In such a world, time ramifies and its possibilities multiply; each realized possibility opens new choices while precluding others that once could have been made. (*Narrative and Freedom* 22)

This is a near to perfect synopsis of FNs that generate possibility through formal multi-linearity. The paradox that arises here is that future narratives, within the context of Bakhtinian eventness, would not be ascribed to the realm of aesthetic artefacts, because such artefacts are precisely *not*, according to Bakhtin, able to adequately emulate eventness: they are “powerless to take possession of that moment of Being” and thus “the product of aesthetic activity is not, with respect to its meaning, actual Being in process of becoming [...]” (*Philosophy* 1). Eventness, for Bakhtin, is something which is reserved for life, not art, and so FNs would have to be counted as belonging to the former category, not the latter; in *Towards a Philosophy of the Act*, he famously differentiates between “the world of culture and the world of life” (2), where the first (“the world in which the acts of our activity are objectified”) could be taken to include (past) narrative, while the second (“the world in which these acts actually proceed and are actually accomplished once and only once”) refers to the openness of every day existence – and, we could postulate, to the openness of future narratives, which permit different runs of one nodal structure.⁹ FNs as narratives which no longer attempt to separate themselves from life as a continually developing process, but which try to simulate precisely this process by constituting an emergent performance rather than a closed representation, present the shape of our human temporal experience as it unfolds from ‘the now’, and their ‘aesthetic activity’ literally *happens* during the reading or playing process: they harbour eventness to a degree unprecedented in storytelling. Morson has critically remarked that, by superimposing a narrative structure onto individual events, “[t]he very possibility of possibility is ultimately eliminated. Whenever structure is present, there is no truly eventful process, only the execution of a pre-given plan” (*Narrative and Freedom* 39), but it is exactly this ‘truly eventful process’ that FNs simulate – their nodal, multipath structure contains a dynamic set of possibilities that depends on individual performances for concrete realizations of the narrative. This has decisive implications for the overall reading experience of such a text: telling the future *as* the

⁹ This concept of ‘runs’ is further described in Chapter 3.3.

future means subverting traditional storytelling structures and disrupting the reader's expectations for coherence and linearity. The text invites play instead of offering the results of a finished game.

FNs thus actively stage the process of a series of events evolving and developing into different directions (according to the decisions made at individual nodes). This process is, by definition, neither determined nor closed from its outset, as the multiple continuations in FNs work against, indeed often resist, sealed and rigid structures or the establishment of definitive ending points. Being procedural systems, FNs present storytelling as an on-going and versatile development that only becomes a 'product' in retrospect – after one specific path of the narrative has been read, played, or watched (and this 'product', will, of course, only be one of at least two possibilities the text offers). FNs thus attempt to simulate the process of becoming. Indeed, the notion of process very strongly relates to the idea of simulation, since simulation usually entails a dynamic process by which the development of a given scenario under a (more or less definitely specified) set of conditions is explored. What is emphasized in the simulative mode is that which has not yet happened but which is, in principle, possible or at least imaginable. "In temporal terms", Frasca has observed, "narrative is about what already happened while simulation is about what could happen." ("Videogames" 86) Simulation, in other words, is the exploration of one or more possible outcomes resulting from determined premises. Elsewhere, Frasca regards "simulations as dynamic systems that produce outcomes" ("Simulation versus Representation"), a definition that rather closely mirrors the understanding of FNs as presented in this study, as these texts simulate openness and processuality through branching and/or choice making on the part of the reader, her interaction with a given environment, the act of decision making, and gameplay.^{10,11} FNs are, then, a kind of 'simulation narrative' (cf. Murray, *Hamlet* 181): they differ from conventional past – that is, chronological and uni-linear – narratives in their integration of

10 There is, of course, always the possibility that a simulation produces only one outcome; Frasca's statement should perhaps be modified to classify simulations as systems that produce *varying numbers of unknown* outcomes. For a critical evaluation of this definition, cf. *Narrating Futures* Vol. 1, 1.14.

11 Also see Ryan (*Avatars* 13), who differentiates between representational and simulative modes of narration: "This distinction is based on the idea that a given process may be actualized in many different ways, or that a given action may have many different consequences depending on the global state of the world. A representation is an image of one of these possibilities, while a simulation is a productive engine that generates many different courses of events through a combination of fixed and variable parameters." Bode, in *Narrating Futures* Vol.1, takes issue with this characterization of a simulation as a 'productive engine' and asks: "A simulation is not *really* a machine, is it? But if it isn't, what is it?" (1.14).

simulative mechanisms into the overall narrative structure. While PNs can be considered as purely representational works of art (again, as presentations of what happened told ‘after the fact’), FNs consist – to differing degrees – of both simulation *and* representation. Simulation is associated with the performative, process-driven playing out of different options within the experience of reading or playing a FN. While it is impossible to preserve openness in a purely narrative representation of a decision making process (for instance, a character musing on different ways her life *could* have gone) because, again, this representation means that the decisions have already happened at the point of their telling, *simulating* the selection of options not only makes such openness possible, but functionalizes the undecidedness of outcomes as the very precondition for the simulation. A group of texts considered in the scope of the present study that relies especially strongly on simulation are alternate reality games that simulate real-life problems and work towards a collaborative solution finding process. Indeed, these games are taken by some to be valuable tools in playing out the future before it happens, helping to map and create a better future by making use of “exploratory play” (Varney).¹² More generally, all FNs simulate decision-making processes by prompting an agent (the reader, or a character within the text) to involve herself in a nodal situation where she must choose between alternatives for continuation. Depending on the ‘radicality’ of a FN, the simulative aspect is more or less pronounced within the text. Proportionally to the measure in which simulation increases in importance and functionality, the importance of representation decreases. Simulation thereby becomes the determining principle in electronic textuality and alternate reality games, while in print FNs, the representational aspect usually outweighs simulative mechanisms: here, narrative is so materially bound that the staging of openness is counterweighed by the static physicality of the book (more on this in Chapter 3). All FNs, nonetheless, rely on mechanisms of simulation to some degree; in this genre, simulation comes into contact with the process of narration in a unique way, since nodes enable simulative processes. The combination of these two elements can be seen as a unique feature of FNs and one that clearly distinguishes this group of texts from traditional past storytelling.¹³ FNs allow the playing-through of options in a fictional space, the testing

¹² These games are discussed in more detail in Chapter 4.6.3.

¹³ Interestingly, Ryan has linked simulative mechanisms to counterfactualty or the question of ‘what would happen under circumstances x or y ’: “Simulation theory can [...] be described as a form of counterfactual reasoning by which the subject places himself in another person’s mind: ‘If I were such and such, and if I held beliefs p and q , I would do x and y .’” (*Virtual Reality* 111) This type of ‘mental simulation’ is read by Ryan as a “special type of imagining: placing oneself in a concrete imaginary situation, living its evolution moment by moment, trying to anticipate possible developments, experiencing the disappearance of possibilities that comes with

of imaginative possibility, the simulation of choice making against the undetermined horizon of futurity.

As has become clear from the theoretical conceptualization of FNs so far, these narratives structurally mirror the future in being open, undecided, and containing multiple possibilities, with any one given situation yielding to multiple continuations. A closer look at theoretical conceptualizations of the future – both recent and historical – will more deeply embed the issue of future narration within a temporal framework of the ‘not-yet’.

2.2 The Shape of the Future

Definitions of the future are simple and infinitely complex at the same time. In temporal relations, the future is quite straightforwardly defined as “the period of time that will come after the present, or the things that will happen then [...]” (*Collins Advanced Dictionary*). This period of time is generally taken to be unknown and unpredictable with respect to its development – indeed, it is the ‘openness’ of the future which today is often seen as its most central characteristic, as we may try to predict, guess, or forecast what will be, but have no way of knowing whether our estimation will be accurate. However, as the following discussion of the future will show, such an idea of the future as being undecided is one that has been subjected to a high degree of historical variance; the ‘not-yet’ has not always been endowed with an equal sense of emergent potentiality. The awareness that “[m]yriad potential futures lie before us”, granting us a “fantastic freedom” (Cornish 62) in shaping our lives, is a *modern* idea of the future, and one that suggests both power over the future *and* a heightened sense of responsibility in using this power (cf. *ibid.*) – the future, in this context, is what we make of it. As such, the ‘future’ in ‘future narrative’ echoes a contemporary ideal of this time sphere, one in which the future is seen to be both open *and* responsive to individual agency.¹⁴ What has particularly influenced this attitude is contemporary mediality: interactive, feedback-based mechanisms such as computer gaming, social networks, hypertext, and multiplayer collaboration have likened the future to what McGonigal has called a “High-Resolution Game” in which “[the] future

the passing of time but remaining *steadily focused on the hatching of the future*” (113; emphasis added).

¹⁴ As will be shown at a later point in this chapter, this idea of the future as a shapeable, playable entity also entails the danger of ‘tilting’ into its opposite, generating a sense of emptiness and crisis because it has become *too* accessible to uphold notions of expectation, anticipation, or suspense.

looks like a massively branching game environment.” The strong associations McGonigal draws between the openness of what is yet to come in temporal terms and the openness of gameplay (in both cases, she suggests, individual agents can determine which way things will go; we can play the future just as we can play a game) is undoubtedly an extreme reading of the human ability to shape and influence the course of the future, and one that is central to McGonigal’s thesis that games and gameplay are actually vital mechanisms for *creating* a better future.¹⁵ However, she is making us aware of a general trend that has not only influenced theoretical attitudes toward futurity, but also the literary realm. Recent fiction, too, has adopted the future’s susceptibility to human shaping as a topic; in Adam Fawer’s 2005 dark science-fiction novel *Improbable*, for instance, the main character David Caine can look into the ‘everywhen’, a temporal sphere containing all possible future alternatives of a given situation. Caine is portrayed as a personification of Laplace’s Demon, a thought experiment developed by the French mathematician Pierre-Simon Laplace, in which he claims that it should, in theory, be possible to know all future events based on a complete knowledge of past and present situations; this, of course, implies a radical view of the future as uni-linear and determined. *Improbable*, likewise, presents the future as intellectually accessible and controllable. Caine, as Laplace’s Demon, is able to monitor both his future and that of the other characters. He cannot change the past, but he can see all possible futures resulting from one situation and choose the best alternative, because he has the ultimate knowledge: the ‘nodes’ of human existence, hidden to everyone else, are perceptible to him. This, again, is an extreme (and, in many places, oversimplified) manifestation of a prevalent lookout onto the future: the future is something over which we have a certain degree of authority. Different possible outcomes of a situation are not just imagined by the novel’s characters, but actually ‘shown’ as distinct possibilities that represent equally valid alternatives, through a mechanism of ‘looping’ back to the starting point of the situation:

¹⁵ In *Reality is Broken: Why Games Make us Better and How They Can Change the World*, McGonigal argues that games are unrivalled in teaching us problem-solving strategies that we can then apply to ‘real life’ in order to optimize the future: “Compared with games, reality is too easy. Games challenge us with voluntary obstacles and help us put our personal strengths to better use.” (22) McGonigal’s central thesis revolves around the capability of gameplay to generate satisfying experiences of achievement, experiences that we often lack in real-life work. Rather than generating a society of isolated individuals driven by escapism, collective gameplay encourages, according to McGonigal, social productivity that is matchless in everyday existence.

Caine raised Nava's Glock 9-millimeter, and

*... angles the gun and pulls the trigger. The bullet rips through the flesh of Leary's calf, but it doesn't stop him. He swings his pistol around and smashes the butt across Caine's skull—
(loop)*

*angles the gun and pulls the trigger. The bullet misses entirely, ricocheting off the pavement. Leary jumps forward, tackling Caine—
(loop)*

*angles the gun and pulls the trigger. The bullet slams into Leary's foot. He stumbles, madly pinwheeling his arms, bringing Caine down with him—
(loop)*

angles the gun and pulls the trigger. (338)

Improbable is one of the few texts that connect structural openness (albeit somewhat limited, since most of the novel is a traditional PN) with the topic of futurity, and in doing so, it demonstrates the modern conception of the future as receptive to individual shaping. Though the novel openly exaggerates this human authority over the future (even for readers of science fiction, accepting the main character to be a personification of a heavily debatable thought experiment may be a far stretch), it can be regarded as symptomatic of a trend that has influenced thinking about the future for the past decades: humans are no longer subjected to the future, but are the players of their own futures (and this, after all, may be one of the reasons why FNs are so enticing as a genre).

The idea of the future as 'environment', reflected in McGonigal's approach cited above, leads to another prominent conceptualization of the future: that of the future *as space*. In spatial terms, the future is often conceived of as the not-yet-entered realm of potential events and situations lying 'ahead' of the subject's position in the present. Indeed, the frequently used metaphor of 'stepping into the future' suggests that the future is a space to be crossed into, an area that is at once unforeseeable and waiting to be seen. In this paradoxical sense, the future is *already here* for us to discover and play with, like a hitherto unpopulated world (cf. Noack 25) that is waiting to be filled with ideas and actions: again, in a slightly different but related sense to what was discussed earlier, the future can be conquered. The 'yet-to-come' is popularly conceived as lying beyond the next bend, around the corner, behind a door, or after the next exit. Chapter 3.14 will demonstrate that future *narratives*, too, can (and must) be conceptualized spatially; especially the prominent topical reference to 'forking paths' in multi-linear fiction influences this view of textual FNs as topological formations. While computer games especially are strongly related to issues of space and topology, even simple multipath texts such as CYOA stories conceive their textual structure as a maze of pathways to be explored, traversed, and mapped by the reader/player.

The conceptualization of the future as space thus finds an equivalent in the conceptualization of the text as space in FNs.

In addition to such spatial readings, the future is also often seen as a substance, indeed, an almost tangible entity that can be moulded and shaped; it is “like material that, thanks to its inherent structure, can be formed into certain shapes and not others” (Adam and Groves 127). This idea of actively *forming* the future as it unfolds before us is emblematic for the contemporary conceptions of temporal futurity that have already been referred to – the future is not something that merely ‘happens to us’ (cf. Cornish 208), but is almost object-like in its status as an entity that can be designed and influenced through conscious decision-making and choice: the future can be produced. The notion of individual agency can thus be understood as a central factor in modern-day views on the future as “emptied of content and opened up to the possibilities that we might create.” (Adam and Groves 77) Dealing with the future becomes a decidedly performative act – the future can be ‘written’, as in the 2010 *Nike* advertising spot *Write the Future* (where alternative outcomes are shown as the result of one single goal shot in a soccer match); it can be “made” as well as “planned, projected, pursued, and performed.” (Adam and Groves xiii; 32) It can even be visually represented, as has been done, for example, by researchers at the Institute for the Future at Palo Alto, California. The results of the massively multiplayer forecasting game *Superstruct* (2008), designed by McGonigal, were presented as a “Map of the Future” (available at www.densitydesign.org), which shows a network of scenarios and ideas for preparing the world for the challenge of the future. Grafting the future onto a map arrests the ephemeral and uncertain nature of the ‘not-yet’ into a static image of presence and manageability: the future can be charted and read.

A further sense of ‘control’ over the future, one that is of a less visual and more philosophical-historical nature, resides in viewing what is still to come as a (logical) extension of the past: “We can acquire some useful knowledge of the future because of the continuity between the past and the future. If there were no connection between what happened in the past and what will happen in the future, we could be totally incapable of anticipating future events or thinking about the future at all.” (Cornish 206) Establishing such a connection creates a consequential relationship between past and future occurrences and emphasizes the significance of learning, planning, and imaginatively (pre-)constructing the future from *what we already know*. This proves relevant, for example, in the context of scientific scenario planning, which sketches different ‘stories’ about how the future may evolve, basing these imaginative continuations of ‘now’ on information that is already available or has proved to be relevant in the past: the future can be deduced from what has come before. Indeed, we can trace a strong affinity of scenarios to narrative – the narrative process of connecting events to

form a meaningful chain lies at the very heart of scenarios. Scenarios are, then, a sort of narrativization of the future, a mixture of prognostic knowledge, intellectual combinatorics, and imaginative narrative art. In this sense, they can be regarded as precursors of FNs (though they may not even be presented in narrative form), simulating different future developments, and emplotting possible events in alternative sequences to evaluate their consequences: “Each scenario tells a story of how various elements might interact under certain conditions.” (Schoemaker 26) The focus on causality and decision-making emphasized above suggests that scenarios are concerned with the mechanisms of bifurcation and alternative options much like the texts examined in this study; however, they generally lack the element of *active* choice on the part of the recipient, and are thus not qualified to transmit the sense of agency which characterizes true future narration. That is, readers and users of scenarios compare and contrast different outcomes *after* they have been simulated, but they do not witness the simulative process itself, the results being more valuable to them than the course of speculation – or what is called the ‘run’ of a FN (more on this in Chapter 3.3).

The technique of scenario building testifies to the fact that the future is, by no means, only an epistemologically vague sphere of unknowns, but has long been the subject of scientific approaches: the future can be studied. ‘Futurology’ began to establish itself as an independent academic field in the mid 1940s, but thinking about and trying to forecast the future is arguably as old as humanity itself.¹⁶ To exhibit an interest in what is still to come is a deeply human quality (cf. Schüll 5), and thus it may be hard to definitely determine how far the search of humans for knowledge about the future actually reaches back into time (cf. *ibid.*). Lewis claims that “[t]he future, as a concept, was born in ancient Mesopotamia, when people began studying the heavens for clues to impending events.” This gaze upwards, toward divine prophecy, can be considered a natural result of the temporal-cultural conceptualization of ancient societies, in which “people have dominion over space and matter only, while the temporal domain belongs to gods [...]. In this world gods and ancestors set the world in motion and move it in particular future directions.” (Adam 3) The practice of prophecy, as a means of knowing but also of controlling the future, flourished in ancient Mesopotamia, Assyria, and Babylonia (cf. Minois 26); divinatory practices such as oil prophecy

¹⁶ Futurology as a scientific discipline tries to systematically evaluate future trends and developments. For this, it relies on various analytical techniques; the most widespread of these methods are *forecasting*, *scenario building*, the *Delphi-method*, *simulation*, and *future workshops*. All of these methods rely on narrative mechanisms for their assessment of forthcoming situations and events, rendering the relationship between narration and a conceptualization of the future apparent.

and dream prophecy, as well as prophecy by reading from the intestines of sacrificed animals (cf. *ibid.*) characterize this early period of dealing with the future. These were the first attempts at futurology, at studying the past and present in order to extend one's knowledge to what is to come; indeed, as has already been mentioned earlier, any knowledge of the future must necessarily rely on observations about what has already happened.¹⁷ Thus, filling an otherwise vacant future space with content in order to make it tangible and, by implication, controllable, is by no means a modern desire – the sceptic Greeks, for instance, called on Delphi and other oracles, desiring to identify and understand what is yet to come.¹⁸

What these early attempts at futurology have in common is their reliance on prophecy to comprehend the will of higher beings, Gods or otherwise, that determine individual and collective fates. The entire ancient world consisted of signs, and distinctive seers or prophets were employed to read and use these (cf. Minois 65) in order to tell stories *about* the future (which is not the same, of course, as a future narrative in the context of NAFU: these stories about the future were uni-linear to the utmost degree). There was no doubt on the part of Greeks or Romans that they could have access to and interpret future occurrences and developments, but encountering the future was always a *passive* act, and necessarily so, since all was planned and executed by higher forces. This passivity makes way for the conceptualization of the future as an open and multi-linear temporal phenomenon, receptive towards human shaping around the turn of the 18th century (cf. Bode, *Future Narratives* 3.1). The “emergence of a new idea of the future as *open and multiple*” (*ibid.*) is related to a number of phenomena developing in a parallel manner during this time, such as the rise of probability theory, the development of the stock market and investments, political forecasting, and insurances, among others (cf. *ibid.*). Such an open future, while promising individual empowerment and agency, also carried risks, as it transferred the responsibility of planning ahead onto human agents instead of leaving them in the care of divine foresight and prophecy. This fundamental change in thinking about the future as a shapeable entity makes way for a modern conceptualization of the manageability of things to come – the view of the “dominance of the future as pre-destined fate” in ancient cultures “has been largely displaced and substituted

¹⁷ Other ancient cultures, as well, relied on prophecy as a method of comprehending the divine and/or spiritual will ruling life, among them, the Celtic, Druidic, and Germanic cultures, who frequently employed divination in political or military contexts, a king or warrior desiring to know the outcome of an individual battle or a war (cf. Minois 59).

¹⁸ The Romans, by contrast, had a more practical and less epistemologically worried attitude towards the future, wanting to know the more immediate future in order to make valid political and/or military decisions (cf. Minois 115). Indeed, prediction was exclusively the concern of the state; only the Emperor was allowed to use methods of divination.

with an unquestioned assumption that the future is ours to make, shape and exploit” (Adam 3) – an assumption that, as the preceding discussion has shown, has determined attitudes toward the future until well into the 20th century.

Recent endeavours to theorize the future as a concept have steered towards a “crisis of identity”, as the organizers of a symposium on “Futurity Now!” (Berlin, 2010) have called it, recognizing a growing lack of the future’s tangibility – the future is seen as “[d]econtextualized, emptied, and open for transformation – [...] a future to which we no longer feel any intrinsic connection.” (Adam and Groves 122) That is, exactly *because* of the modern sense of being able to create the future and fill it with content, the future no longer generates enthusiasm (cf. Noack 72); in incessantly talking and writing about the future, we are depriving ourselves of the opportunity to truly experience its potentiality and openness. The idea of the ‘manageability’ of temporality has reached its tipping point, resulting in a view of the future as empty (cf. Adam and Groves) and paradoxically disconnected from our experience. Helga Nowotny’s notion of the ‘extended present’ plays into this postmodern attitude towards future occurrences. This notion replaces the future with “an uninterrupted unfolding of now without any sense of what a post-now would look or feel like or how it could be reached” (O’Loughlin 139): the future threatens to become inaccessible, paradoxically, *because* of its very accessibility. The simultaneity of modern media, and especially the Internet, fosters this sensation of presentness replacing the future; indeed, it has been proposed that “the internet can be seen as the embodiment of an extended present [...]” (Hellsten, Leydesdorff, and Wouters 907). That is, the awareness that access to any information is only a mouse-click away has shaped the way in which the ‘not-yet’ is experienced, as any “information [...] seems to be presently available at the time of the search.” (902) Or, as Goldhaber has succinctly described it, on the Internet, “[e]verything appears in the present tense. One might admit two forms of the present, an ultra-present, namely what has just appeared in your e-mail in-box, and a tenseless present – everything else.”¹⁹ Besides this replacement of sequentiality with simultaneity as a result of postmodern media culture – what counts is the *now* –, uncertainty is less and less easily accepted by the public as a (often necessary and unavoidable) factor in scientific discourse. Paradoxically, the more the future loses its force as a realm of potentiality, the less we are able to come

¹⁹ One possible symptom of this new approach to the future may also manifest itself in the growing number of films which portray the future as already known and/or decided. Lee Tamahori’s *Next* (2007) features part-time magician Cris Johnson (Nicholas Cage) who can see a few minutes into the future; in *Knowing* by Alex Proyas (2009; also starring Nicholas Cage), the future has been written down as a combination of numbers and hidden in a time capsule to be opened after 50 years (for an evaluation of the future as a concept in these films, see Preis).

to terms with its status of undecidedness (which is, of course, the very *source* of its potentiality).²⁰ The complexity of dynamic processes, such as global warming or the development of financial markets, is regularly reduced to a uni-linear narrative and endowed with a clear causality and teleology when it is presented to laypersons (that is, the interested public).²¹ This practice is increasingly subject to criticism; the climatologist Bert J.M. de Vries, for example, explicitly argues in favour of an acknowledgement of uncertainty and complexity regarding scientific discourses: “We must address explicitly and scientifically uncertainty and complexity. A new epistemology is needed. We should incorporate people and their values in the process of scenario construction and use. Participatory methods, such as simulation games [...] are necessary complements.” (391)²² That is, scientific discourses – and by extent, other types of discourse (socio-economic, political, cultural, medial) – must learn to accept and integrate uncertainty into their ‘storytelling’ practices, allowing the future as an unknown field of possibility to enter back into the conceptualization of reality and the present. FNs, it would appear, model exactly what these critiques of science demand: to involve ourselves into a game of multiple possibilities, to deconstruct epistemological hierarchies, to privilege simulation over (re-)presentation. One major potential appliance field of this type of multi-linear, nodal narration could certainly be the presentation of complex scenario results, such as climate reports, which

20 Uncertainty entered the scientific universe with a bang in 1927 when Werner Heisenberg discovered the ‘uncertainty principle’ in quantum mechanics, which states that it is impossible to know *both* the precise position *and* momentum of a particle at a given moment. This revolutionized the scientific attitude toward the knowability of the universe, and, by extent, toward the knowability of the future. The impossibility of causal prediction makes way for the possibility of multiple future outcomes – the actual realization of an outcome can only be observed, not foreseen.

21 Gramelsberger has, for instance, evaluated journalistic reports on climate change (one of the most complex and uncertain research fields that exist today) in the German weekly magazine *Der Spiegel* from the 1960s until the turn of the Millennium; she has traced a clear trend of uncertainty being substituted with definitude in medial coverage of this phenomenon and its future development: the future, according to her research, is most often portrayed as calculable, contingent, and mono-causal (cf. 45) in medial representations of intricate scientific discourses.

22 Hayles makes a similar argument regarding cultural and epistemological discourses, arguing in favour of a questioning of linear causality: “The contemporary indoctrination into linear causality is so strong that it continues to exercise a fatal attraction for much of contemporary thought. It must be continually resisted if we are fully to realize the implications of multicausal and multilayered hierarchical systems, which entail distributed agency, emergent processes, unpredictable coevolutions, and seemingly paradoxical interactions between convergent and divergent processes” (*My Mother* 31).

lose their intrinsic potentiality when grafted into a linear narrative account.²³ In these cases, the ‘openness’ of possible developments and outcomes would be far more tangible for the recipient if she could encounter the data in, say, the form of an interactive gaming situation instead of a printed analysis. The sense of agency experienced in FNs – at any time the reader/player is able to make meaningful choices for the development of the story – may pose, moreover, as a counter-movement to the emptied, inaccessible future experienced in postmodern culture. It can reinstall a view of “time as an open-ended and fundamentally active force – a materializing if not material – force whose movements and operations have an inherent element of surprise, unpredictability, or newness.” (Grosz, “Becoming” 3) The narrative *enérgeia* of FNs, which stage the text as a realm of possibility waiting to be actualized, is a distinct counterforce to any absolute discourse of closure or definitude.

This cursory overview of the historical development of thinking about the future makes it very clear that the confrontation with the unknown, the unpredictable, and the new has always been both fascinating *and* worrisome. “The concept of the absolutely new”, argues Grosz, “raises many anxieties. While it is clear that *newness*, *creativity*, *innovation*, and *progress* are all terms deemed social positives, the more disconcerting notion of unpredictable, disordered, or uncontrollable change [...] seems to unsettle scientific, philosophical, political, and cultural ideals of stability and control.” (“Thinking the New” 16) The category of time itself has, especially in the wake of modernism and postmodernism, also been subjected to numerous revisions and ambiguities. Perceived as a realm of potentiality rather than a uni-linear, stable entity, the temporal dimension of life is increasingly associated with mechanisms such as randomness, chance, contingency, and openness. Though an in-depth review of contemporary attitudes toward time is beyond the scope of this study, this temporal reconceptualization must be acknowledged, especially with regard to the role that digital media play in transforming time and attitudes toward the future. In order to approach the semantic and narratological implications of future narration to the theory of narrative as a whole, it is furthermore worthwhile to take into account those philosophical and literary theories that approach the multi-path, interactive storytelling within different contexts. These theories are evaluated with regard to their significance for *textual* FNs in particular, since these constitute the sub-group of FNs of interest to this study, and to begin, we shall look at one of the most strongly innate characteristics of the novel – the contemplation of possibility and alternatives to actuality.

²³ See *Narrating Futures* Vol. 1, 1.17 for a detailed, comprehensive discussion of the relevance of FNs to climate change reports and other types of scientific discourse.

2.3 What If...? Thinking Beyond Actuality

The question of ‘what if’ is deeply enrooted in any imaginative speculation on temporal development and its alternatives. The awareness that things might have turned out differently from what we perceive as reality is the central force behind counterfactual thinking. This consideration of alternative (i.e., counterfactual) outcomes to a given situation does not only apply to speculations about the past, but also to the musing on future events – in essence, counterfactuality implies the imaginative construction of multiple scenarios, whether it be in retrospect (‘what might have been’) or regarding states that are still to come (‘what could be’). As such, this concept is mutually pertinent to historical developments as demonstrated in the genre of alternate history (which entails a counterfactual bifurcation from some actual point in the past) *and* to FNs, in which the reader or player can compare different alternatives to each other by way of counterfactual contemplation.²⁴ Specifically, such contemplation proves to be especially relevant to those FNs that permit *active* choice making on the part of the reader or player; counterfactual thinking allows the imaginary simulation of differing consequences resulting from a single decision (and thus the potential optimization of choice) *and* the retrospective comparative evaluation of different paths taken. In the context of textual FNs, such an optimization of choice is particularly significant for goal-oriented storytelling mechanisms such as the CYOA gamebook or digital interactive fiction, where the motion of ‘re-trying’ or revising proves to be one of the most crucial aspects of the narrative experience: the reader/player must test different runs to find the best (i.e., most successful) path through the storyworld.

While counterfactuality is a phenomenon most often related to psychological, cognitive and/or philosophical discourses, it has also been the subject of investigation in literary texts. In her extensive study *Coincidence and Counterfactuality: Plotting Time and Space in Narrative Fiction* (2008), Hilary Dannenberg demonstrates the relevance of counterfactual thinking to fictional storytelling and the form of the novel in particular, arguing that “with the rise of the novel, more sophisticated plots develop involving the temporal orchestration of alternate world versions: more than one version of the past or future is suggested as a possibility by the text.” (46) That is, the novel increasingly functionalizes its potential to present the world as a stratum of alternative options, between which its inhabitants must choose their path, and of whose existence as multiple possibilities they are cognitively aware. The temporal polyvalence of any

²⁴ The genre of alternate history and its relation to the field of FNs is discussed in Kathleen Singles’ Volume 5 of the *Narrating Futures* series.

situation peaks in post-modern textology, which presents “literary texts not as static, self-enclosed monads but as an open-ended writing and reading process in which meanings and subjects are articulated dialogically.” (Sanz and Romero 7) As Ursula Heise argues in *Chronoschisms* (1997), the postmodern novel shows “time dividing and subdividing, bifurcating and branching off continuously into multiple possibilities and alternatives” (55); time in the postmodern novel is thus conceptualized as being *open*, a process of becoming rather than being. Time is also a category that is increasingly subject to being manipulated, shaped, and created rather than merely passively experienced; postmodern literature tends to self-consciously flaunt its own temporality rather than tacitly integrating it into the semantic background of the novel. All of this is still a long step away from future narration, which turns these figural musings of alternatives and deconstructions of monolithically formalized time into the *central structural conceit* of the text; however, as will also be argued in Chapter 3.1.3, the novel carries the seed for this conceit within itself from its beginnings, because it has always been a platform on which optionality can be negotiated – even if this negotiation takes place on a purely imaginative level in the bulk of novelistic writing. Temporally ambiguous texts pave the way for the structural implementation of openness, and the fictional cosmos is, as the novel develops through the centuries, progressively extended into a multivalent realm where both *what is* and *what is not* chosen can be highlighted within narration.²⁵ The action realized within a novel is, then, only one of potentially infinitely many alternatives, and other alternatives than the one selected are often considered or even yearned after by the characters, whose realization that ‘the road taken’ may not have been the best choice is a prime

25 A concept that is related to the idea of counterfactuality in narrative fiction, and one that contributes to narrative’s potential to evaluate possibility *versus* actuality, is Gerald Prince’s notion of ‘the disnarrated’, which “makes explicit the logic at work in narrative whereby [...] every narrative function opens an alternative, a set of possible directions, and every narrative progresses by following certain directions as opposed to others: the disnarrated or choices not made, roads not taken, possibilities not actualized, goals not reached.” (36) That is, the disnarrated conceptually includes all of the options which were left unactualized, but are in theory thinkable for the storyworld. Morson points us into a similar direction with his concept of ‘sideshadowing’, which “conveys the sense that actual events might just as well not have happened.” (*Narrative and Freedom* 118) That is, sideshadowing acknowledges that the version of events which we are shown in a narrative is only one of many alternatives, and that things could easily have gone differently: “*Something else* was possible, and sideshadowing is used to create a sense of that ‘something else’. Instead of casting a foreshadow from the future, it casts a shadow ‘from the side’, that is, from the other possibilities. Along with an event, we see its alternatives; which each present, another possible present.” (*ibid.*) This evokes an almost holographic effect of ‘seeing’ the actualized present *and* its alternatives: “In sideshadowing, two or more alternative presents, the actual and the possible, are made simultaneously visible” (*ibid.*).

mechanism for creating tension and drama within the narrative. ‘If only’ proves to be one of the most forceful cognitive operations in narrative, as it is in life.

What distinguishes this sort of showcasing of missed chances and ‘roads not taken’ from FNs is that the latter not only suggest, but actively *flesh out* and make available these other options. In other words, FNs attempt to render the (usually hidden) alternative strands of the counterfactual accessible by realizing them as equally valid options in the fictional world: nothing is lost by prior selection, everything is preserved as possibility. Indeed, these narratives are unique in transferring the obligation of selection onto an agent (either a character within the narrative or the reader) who must choose between different possibilities existing with uniform authority. In printed textual FNs such as the Choose-Your-Own-Adventure book, the material presence of all alternatives can even acutely be ‘felt’ by the reader just by virtue of holding the book containing all outcomes in her hands; within digital textuality, the options available are less easily accessible, coming into ‘existence’ only once the reader interacts with the system and activates a link leading to new content (though the material is always present as digital code). Still, the *preservation of options* instead of an elimination of potentiality can be taken to be one of the most fundamental properties of FNs, which make possible what past narration cancels out: the trying-out of different alternatives, the treading of different paths, the testing of different outcomes.

2.4 Pre-Text and Prototype: Cybertext and Ergodics

Espen Aarseth’s term ‘ergodic literature’ closely relates to the narrative genre of FNs and must here be acknowledged as an important pre- and subtext of any structural evaluation of this genre; indeed, the category of ergodics may well be the closest approach to a description of FNs in the field of literary and media studies thus far. Aarseth has famously defined ergodic works as literature in which “non-trivial effort is required to allow the reader to traverse the text.” (*Cybertext* 1) This ‘nontrivial effort’ includes active choice and decision-making through the navigation of options (in our context, these would be the nodes), and the result of such ergodic reading mechanisms is what Aarseth has termed ‘cybertext’: “During the cybertextual process, the user will have effectuated a semiotic sequence, and this selective movement is a work of physical construction that the various concepts of ‘reading’ do not account for.” (*ibid.*) That is, cybertext requires more from its readers than simply turning to the next page (or, indeed, simply clicking from link to link: to Aarseth, not all hypertexts are automatically cybertexts); it offers, by definition, a multipath universe which must be explored by way of decision-making on the part of the reader/user: “This design turns the text into a matrix

out of which a plurality of texts can be generated.” (Ryan, *Virtual Reality* 206) The analogies between cybertext and FNs are undeniably evident: both distinguish between the ‘deep structure’ of a text (Aarseth terms this the ‘textons’ of a work, while we have defined it as the text’s ‘architecture’) and concrete performative realizations (‘scriptons’ in Aarseth’s terminology and ‘runs’ in ours). Besides the structural affinity between Aarseth’s concept of cybertext and what we have identified as FNs, one of the most important points Aarseth makes in his discussion of this textual mode is that cybertext (as much as this term may seem to refer only to texts in virtual ‘cyberspace’) is in no way limited to digital textuality; rather, he functionalizes this category as an umbrella term spanning both print *and* digital forms of narration:

Cybertext [...] is not a ‘new’, ‘revolutionary’ form of text, with capabilities only made possible through the invention of the digital computer. Neither is it a radical break with old-fashioned textuality [...]. Cybertext is a *perspective* on all forms of textuality, a way to expand the scope of literary studies to include phenomena that today are perceived as outside of, or marginalized by, the field of literature – or even in opposition to it. (18)

Such a deconstruction of medial boundaries as the precondition for a functional and typological analysis is informative to future narration in a crucial sense, as FNs, too, transcend the confines of individual media and can be found literally *anywhere* in the narrative cosmos; the concept as such works independently of any specific medium. While Aarseth, in concrete cybertext readings, focuses mainly on examples of electronic textuality (such as the adventure game, hypertext, and MUDs), the general principle of ergodic literature is transferable on any text which offers more than one possibility of traversing the textual structure. Indeed, Aarseth acknowledges the existence of ergodic structures in the print medium by referring to works such as the *I Ching*, Raymond Queneau’s *Cent mille milliards de poèmes*, B.S. Johnson’s *The Unfortunates*, and Milorad Pavic’s *Landscape Painted With Tea*.

The strength of Aarseth’s model lies in exactly this unwillingness to make categorical distinctions between print and electronic media when it comes to the structural possibilities they offer (radically opposing critical positions such as, for instance, Landow’s) and this is a position that the NAFU project certainly shares (though, in our context, the medial ubiquity of FNs does not discount the highly relevant aspect of medium sensitivity as described in Chapter 3.1). What Aarseth, due to his strong concern with structural and communicative paradigms inherent in ergodic design, largely leaves out of the equation is the implication of possibility that textual ‘machines’ offer, the different stagings of potentiality that multipath texts are able to generate by varying the level of choice, consequence,

and agency accessible to the reader.²⁶ The category of the *nodal situation* as presented in this study and in the *Narrating Futures* series as a whole extends the structural dichotomy of ‘deep structure’ vs. ‘run’, or ‘machine’ vs. ‘output’, to a more comprehensive evaluation of situational optionality, and closely evaluates the role of information, narrative mediation, and indication of possibility during the negotiation of a node. Aarseth’s groundbreaking prototype of multipath, multicursal textuality – the cybertext – thus serves as springboard for an appraisal of FNs as narratives of potential, emergence, and individual selection.

2.5 Shaping and Experiencing the Storyworld: Agency and Immersion

One of the principal pleasures a FN affords its readers is the feeling of being able to shape future occurrences and situations in a concrete and personal way. That is, not only are FNs often offered in *interactive* media (more on this in Chapter 3.4), they also suggest to the reader/player a potentially higher degree of influence on the development of what is still to come than real life does: they are textual spaces that foster and encourage the ‘trying out’ of decisions and behaviour, and these spaces are ultimately sanction-free, because they are, after all, fictional spaces. Indeed, FNs are explicitly based on the active involvement of an agent in the storyworld’s future (be it a reader/player or a character within the tale); a crucial differentiation between past and FNs can thus be located in their ability (or willingness) to proffer a sense of individual agency. ‘Agency’, which Janet Murray has defined as “the satisfying power to take meaningful action and see the results of our decisions and choices” (*Hamlet* 126), surfaces in FNs within the process of selecting options and paths through the text or game. Rather than being a passive receiver of a tale, the reader/player of FNs may be called upon to make individual choices in order to progress through the text and experience a specific performance of the story. However, agency, as Murray cautions, must not be simply equated with interactivity, as it is not merely defined by the reader’s interaction with a given text, but rather with the *aesthetic pleasure* that results from such a (successful) interaction (cf. 128). While it is true that all literary texts call upon some degree of readerly engagement, only an active participation in the creation and shaping of the storyworld can generate a true sense of agency (cf. *ibid.* 126–127) in the sense of a pleasurable aesthetic experience. Agency is

²⁶ This is not to say, however, that Aarseth does not address reader function in cybertext; he explicitly remarks that “[t]he effort and energy demanded by the cybertext of its reader raise the stakes of interpretation to those of intervention” (4).

thus closely related to reader satisfaction (as is indicated by the quote from Janet Murray above); it manifests itself when “we can be both the dancer and the caller of the dance” (*ibid.*), when our immersion in and engagement with the text leads to an enjoyably productive reading (or playing) experience.

Regarding textual FNs, agency proves to be one of the most valuable criteria of differentiation between different structural arrangements of nodal situations. The sense of agency in narrative texts may initially be thought to increase proportionally to its structural openness; that is, the more freedom of choice the reader experiences, the greater the sense of unbound movement through and within the text. However, the pitfall of openness is randomness, and any pleasurable feeling resulting from the possibility of doing *anything*, going *anywhere* is quickly decreased when the action of selection becomes haphazard or unmotivated – if choice, in other words, does not matter for the shaping of the storyworld. Acting in and reacting to decision situations must be, as Murray stresses, *meaningful* in the sense that the reader/player must be able to feel that choosing *a* over *b* has made a difference in how she navigates and experiences the storyworld. Agency is thus more strongly prevalent in teleologically conceived FNs such as the simple Choose-Your-Own-Adventure kind, in which the reader or player ‘works toward’ some goal (i.e., winning, or at least reaching a satisfying ending), and where the consequences of her actions will therefore carry weight within the overall semantic structure of the text. In the exploratory mode of reading implemented by hypertext, which is characterized by choices made with no direct purpose in mind, the sense of agency surfaces at most when this exploration leads to a satisfactory orientation within the textual space; feeling ‘lost’ or ‘disoriented’ in a FN will most likely work directly against the pleasure of agency, as will the making of decisions that have no detectable consequence for the storyworld. In a paradoxical sense, then, the old-fashioned medium of print seems to have the clear advantage over digital text in this case: a ‘wrong’ choice in a CYOA-book often results in immediate termination (by character death, for example), while a ‘right’ choice is equated to surviving, advancing, beating the odds. Every nodal situation *matters* regarding its immediate outcome and/or long-term consequences. This is meaningful action in Murray’s sense, while the random clicking of many a hypertext cannot generate an even remotely similar experience of consequentiality. However, we must be careful not to yield to the temptation of establishing a clear print-digital dichotomy when it comes to agency: more openly ludic digital forms of narration, such as interactive fiction (IF) can also be taken to generate a concrete experience of agency (imagine the satisfaction of a player who has just figured out the correct command to the parser that will allow her to win the decisive move of the game!), and thus agency is not only a factor in printed binary texts such as Choose-Your-Own-Adventure, but an effect of all teleological struc-

tures which favour ‘right’ and ‘wrong’ decisions over decision-making simply for its own sake, or, put differently: all ludic structures. Agency is an experience connected to gameplay, gameplay is connected to the experience of power, and power is not only equivalent to optionality, but, more importantly, to consequentiality, to attributing a detectable significance to individual player moves. The large and diverse corpus of textual FNs can be categorized according to the degree of agency that the individual text forms are likely to enable: the more concretely a narrative establishes a goal, the more likely it will be that the reader/player of this narrative will experience pleasure in trying to reach this goal.

Closely connected to the principle of agency is that of ‘immersion’, which, according to Murray, “is a metaphorical term derived from the physical experience of being submerged in water.” (*Hamlet* 98) ‘Immersion’ thus designates the cognitive and emotional involvement in a text (or any other type of medium) which entails the suspension of real-world awareness for the sake of ‘losing oneself’ in the artwork – “the sensation of being surrounded by a completely other reality” (*ibid.*). Immersive texts (in the widest sense of the term) yield aesthetic enjoyment, as “[w]e tend to label a literary work immersive when we take pleasure in it [...]” (Ryan, *Virtual Reality* 95). Moreover, a high degree of agency both furthers and is furthered by a high degree of immersion, and the relation between both concepts can thus be characterized as reciprocal. By being ‘caught up’ within a narrative performance, the reader/player allows herself to be more heavily involved in the experience of actively structuring and determining its various outcomes, which, in turn, increases her sense of involvement. The textual experience is thus transformed from “a stationary mental activity [t]o a movement in space” (Dannenberg, *Coincidence* 67), a movement through and within the narrative landscape which can be dynamically altered and manipulated by readerly interaction. The immersive potential of a narrative is increased by its visual appeal – in this sense, all forms of digital textuality working with images, graphics, and visual effects can be said to more easily generate immersion than the printed page.²⁷ In the bound book, immersion is more dependent upon the recipient’s cognitive and emotional involvement in the work; especially difficult narrative texts arguably hinder or even prevent immersion, for “the depth of the reader’s immersion in fiction” can, as Douglas maintains, be seen as “inversely proportional to the complexity and originality of the reading matter.” (150) A read-

²⁷ See Murray, who detects a heightened immersive potential in all forms of digital electronic environments: “Cyberspace gains much of its immersive power from spectacular effects – arresting visuals like the fast-moving, pulsating explosions of the videogame, the flashing billboards of the World Wide Web, and the hallucinatory apparitions of virtual reality landscapes” (*Hamlet* 112).

er's willingness to engage with a complex narrative thus strongly depends both on its difficulty *and* on its use of visuality.²⁸ Regarding textual FNs, immersion is, overall, a problematical phenomenon: while the visuality of advanced hypertexts (early variants of the genre, such as Michael Joyce's *afternoon*, make very little of the visual possibilities of digitality) may be taken to further immersion, the often disjointed narrative experience they generate works *against* absorbing the reader in the story; print narratives, while usually much more limited (and thus less immersive) in a purely visual sense, potentially promote immersion by simply offering a good story. The singlehandedly highest degree of immersion within the scope of this study can be ascribed to collaborative and simulative modes of narration, such as the alternate reality game and the forecasting game, where the lines between fictional and real experientiality blur and the player integrates the narrative experience into her own existence, by, for example, keeping a fictional diary of life in the middle of a future oil crisis. This kind of immersion goes far beyond the readerly engagement prompted by virtual visuality or special effects in computer gaming, as the interface is almost completely obscured and the player literally *lives* the game.

This chapter has shed light on FNs from a variety of angles, and it has become clear that telling the future *as* future in text encompasses a range of narratological reconceptualizations. As the next chapter will show, the printed book in particular faces some undeniable obstacles when it comes to implementing structural openness; how such texts can surpass these obstacles, and how they – and other forms of textual FNs – can operate with nodes is in the focus of what follows.

²⁸ Again, see Murray (*Hamlet* 106), who argues that great care must be taken by the designer of an immersive environment in order to make the immersive experience accessible: "Participation in an immersive environment has to be carefully structured and constrained. Ideally, the range of allowable behaviors should seem dramatically appropriate to the fictional world [...]."

3 Textual Future Narratives – Form and Structure

In her seminal study on interactive fiction *The End of Books*, Jane Yellowlees Douglas addresses the issue of formal openness in literary texts with a somewhat sceptical undertone:

Whereas fiction pleases us with its consonances, its patterns and gestalts, its symmetry and predictability, life can be chaotic and unpredictable, all sense of orderliness or pattern possible only at the distance conferred by retrospection after the passage of years. To encounter fiction outside any established order is to enjoy a dubious bit of freedom, less like an aesthetic experience and more like dicing with life itself. (126)²⁹

The ‘dubious bit of freedom’ that Douglas mentions is a phrasing that should not be passed over lightly; as has already been suggested in the previous chapter, the implementation of nodes as sites of formal possibility seriously questions narrative’s status as an organizational principle that operates through retrospective sequencing. Readers of narrative, it seems, do not always take pleasure in ‘dicing with life’ – and this is surely part of Douglas’ doubts about the freedom issued by non-sequential fiction – but may be more comfortable with storytelling that offers conclusions, finality, and a predetermined order of events. FNs probe the very nature of narrative, and the tension between conventional approaches to storytelling as *representation* and the structural openness of FNs, outlined in the preceding chapter, calls for a radical reconceptualization of narratological tools and models in order to sufficiently analyze the genre of texts evaluated in the *Narrating Futures*-series. While their medial roots are firmly grounded in printed textuality of the conventional kind, FNs depart from classical modes of storytelling as soon as they include even just one nodal situation within their structural makeup, steering away from uni-linearity and toward a multiplicity of narrational possibilities and options. In this, they truly constitute a new narrative genre. Though the structural particularities evaluated in the following chapter apply to any type of FN – they trace the poetical and narratological groundwork of this new genre – the special conditions of *textual* future narratives will be given particular and close attention. This points to the highly important issue of medium-

²⁹ Of course, one has to concede that there are plenty of art forms which are explicitly based on *not* providing us with an established order or patterning (think of *Ulysses*, or the works of Jackson Pollock, or the compositions of John Cage), and this certainly does not mean that they cannot grant us aesthetic experiences (quite the contrary). However, the crucial differentiation between (narrative) fiction and life Douglas points us to here is valid insofar as it calls attention to the readerly *expectation of order*, which is severely disrupted whenever a work of fiction opens itself up to multiple possibilities.

sensitivity in the context of future narration: despite the fact that narrating the future in a structural sense is not only possible, but in fact prevalent in all media (and, in this way, not restricted to mediality of a specific kind), the concrete realization of openness critically depends on the medium into which the narrative is inscribed. Very generally, of course, the medium *always* matters in the transmission of narrative content – as Pratt has remarked, “the kinds of narrative that can be conveyed in a given medium are both constrained and enabled by the medium itself” (98) – and since this medium-sensitivity is even more strongly significant in the case of FNs, the first part of this chapter is devoted to further exploring the implications of mediality for this genre.³⁰ Particularly with regard to the kinds of texts considered in this study (a typology of these will be provided in Chapter 4), the range of media varies greatly, and the specific medium in which the narrative message is encoded drastically influences the navigational experience of the storyworld, its structure, and its implementation of consequence; it shapes and determines, in short, the differences between FNs across the medial spread. The structural properties of textual FNs, which split open the uni-linearity of retrospective storytelling into a display of narrative potential waiting to be actualized, are the focus of the subsequent sections of this chapter, and the central category of the node, in particular, is evaluated with respect to its implementation in printed and digital FNs. Tracing the three prevalent nodal structures of tree, network, and axis leads into a reflection on the specifics of navigating through the individual topologies of future narratives, and on the broader issue of spatiality within this genre.

3.1 Narrating the ‘Not-Yet’: Issues of Mediality

Stratifying narrative content into a plethora of possibilities, future narratives work against the tendency of storytelling to privilege cohesion over disruption, and sequence over segmentation. Particularly the aspect of reader/player interactivity, which many FNs share as a characteristic trait, problematizes the sense of uni-linear continuity that is generally associated with processing past events. That is, the interruption of narrative sequence for the sake of making more than one variant of a story possible shifts the focus from the past or what has already been to the present or what is still to come, and this happens for a good reason:

³⁰ Central to this issue of medium-sensitivity to meaning formation and production is, of course, Marshall McLuhan’s credo “the medium is the message”, which he propagates in his 1964 publication *Understanding Media: The Extensions of Man*. Here, the focus is for the first time shifted onto the medium which carries the message instead of the message itself.

the 'not-yet' is only adequately narratively represented when it has not crystallized into actuality at the time of narration. Or, to quote Juul, "it is impossible to influence something that has already happened." ("Games Telling Stories") Such strategies of structural openness are, as the NAFU research project as a whole has shown, accepted more willingly by the recipient in newer, electronic media such as hypertexts and video games (where, as will become clear in the discussion of digital storytelling that follows in Chapter 4.5, this openness is much more intrinsically part of the textual structure as a whole). In print literature, which is not only less physically 'flexible', but also less visually immersive, readers tend to read for the plot and may only hesitantly tolerate choice situations, which are often perceived as disturbances within the process of creating a holistic and structurally 'closed' narrative (with the significant exception of the Choose-Your-Own-Adventure genre, which is, however, a special case for many reasons and will be repeatedly focused on throughout this study). Structural openness, including a choice of continuations and the potentially active involvement of the reader, has thus been found to be more 'naturally' realizable in electronic media than in print narratives, and experiments to implement this openness in the printed form have so far been the clear exception rather than the rule. Indeed, the most crucial tilting point within this study of textual FNs is that between the printed book and electronic text; the ability of texts to generate a continuation-by-choice mechanism increases significantly when the threshold into the realm of the digital has been traversed.³¹

To begin the survey of how openness can be inscribed into textual narrative, we shall turn our attention to the media-historical roots of FNs – the printed book. Doing so, we must make an observation that may initially seem rather disconcerting: very few printed narratives functionalize openness, in the sense of choice-demanding situations, by including nodes within their structural makeup. Bordwell remarks on the limitations that fiction (and by this, he specifically means fiction in the print medium) faces when presenting different outcomes of one initial situation: "In fiction, alternative futures seem pretty limited affairs. Folklore bequeaths us the two-doors problem (the lady or the tiger?) and the motif of the three paths leading to three fates." (89) What Bordwell suggests

³¹ It can also be observed that the kind of formal multiplicity FNs display is more freely realizable in game situations, which invite this multiplicity as an essential part of the playing process, than in narrative texts whose basis lies in the establishing of a coherent storyline. Finally, immersion in future narration is arguably more easily achieved in visual than in non-visual media, as the process of literary immersion – 'loosing yourself in a book' – is continually disrupted by the inclusion of nodes in narrative, while gameplay immersion relies mainly on "spatial presence" (Madigan) generated by detailed visual information.

here is that print fiction, when it comes to representing multiplicity and optionality, is restricted to a limited number of metaphorical sketches. This is certainly a much oversimplified assessment, and one that may be understandable insofar as Bordwell focuses on the medium of film when discussing the possibilities of forking paths, but it nevertheless serves as a first indication of a trend that must be acknowledged when considering future narration in the print medium: forking-path plots that are denoted formally, and not only thematically, are rare in hard-copy text. Indeed, the only genre in which the pattern of continuation-by-selection has been able to establish itself firmly (and with considerable commercial success) is, again, the Choose-Your-Own-Adventure (CYOA) children's book series, which features a choice of two or more options at the end of each chapter. However, the exceptional status of this format has already been hinted at: it is based on a strongly teleological narrative mechanism – reading for the most 'desirable' ending – and has often been criticized for its *lack* of true openness due to “an unsatisfyingly short series of infrequent, binary choices” that exposes “the limited and cumbersome nature of a non-procedural, encyclopaedic approach.” (Mateas and Stern) Since these books usually distinguish clearly between 'good' (i.e., favourable, most often life-preserving and -affirming) and 'bad' (i.e., unfavourable, life-destroying) choices, the selection process of the reader is firmly guided by the desire to find the correct path through the narrative structure. In this sense, CYOA narratives are games that must be played and won (and indeed, they constitute the hard-copy prototypes of any digitally interactive adventure video games); it is thus reasonable that they should employ structural openness while at the same time strongly depending on a teleologically determined end point, reconciling two opposed mechanisms that usually cancel each other out in narrative texts.³² Other, more openly material attempts to break open the restrictive linearity of the printed medium include William Burrough's 'cut-up' technique, in which conventionally printed texts are cut into pieces and rearranged to form a 'new' text, and, more generally, all forms of aleatoric literature, including game-novels and combinatorial writing.³³ Such “attempt[s] to confront the limits of narrative form” (Smith) demonstrate the printed text's exploration of formal multiplicity, which can be read as “an attack on the seductive qualities of traditional fiction” (*ibid.*); however, despite these innovative efforts to transcend the physical constraints of the book, severe problems remain in linking printed textual narratives to the concept of structural openness entailed in future narration.

³² This genre will be evaluated in more detail within Chapter 4.3.4.

³³ These types will be examined in more detail within Chapter 4.4.

3.1.1 Tempting Teleology

These problems reside, on the one hand, in the strong associations readers form between traditional (i.e., printed) narratives and a teleologically determined linearity in the sense of 'reading for an end'; Bordwell refers to this briefly when he mentions the "canons and conventions of the medium" which "limit the proliferation of forking paths" in print fiction (91).³⁴ That is, when a reader takes a book into her hands, she expects that she will read it from its first to its last page, and that between these, she will find a – more or less coherent – story that, too, unfolds from the beginning to the final page. Reading a book usually is, in a very literal sense, a start-to-finish process: "Crossing the novel from one cover to the other along the typographic highway, there is not a turning in sight." (Gunder)³⁵ Beyond this physical convention of linearity, readers of fiction are also habituated to what Moretti has termed a "teleological rhetoric" – namely, the presupposition that, in narrative, "the meaning of events lies in their finality." (7) This clearly testifies to the fact that it is the objective of most (though, as this study shows, not all) stories to arrange plot in order to arrive at a neatly marked end-point for the generation of narrative meaning: "events acquire meaning when they lead to one ending, and one only." (*ibid.*)³⁶ The avoidance of structural branching for the sake of presenting a storyline that is targeted toward a decisive finale is thus generally seen to lie at the heart of what narrative is supposed to be.³⁷ Much has been written on the parallels between narrative and meaning formation, and on those between narrative and life experience; Abbot states on the very first page of his *Cambridge Introduction to Narrative* that "[w]e make narratives many times a day, every day of our lives." (1) The human ability to tell stories is essentially dependent on retrospectively arranging individual events into a logical and ordered

³⁴ Bordwell more specifically explains the lack of true forking-path narratives within the hard copy format by drawing attention to the cognitive restrictions readers face when conjuring up options for continuation: "At any moment we can easily imagine two or three alternative chains of events, [...] but not twenty or sixty, let alone an infinite number. It may be relevant that outstanding examples of forking-paths tales in literature conform to similar constraints" (91).

³⁵ Ciccoricco (46) similarly speaks of the "inescapably linear form of the novel", though future narratives, of course, demonstrate that this inescapability is not absolute.

³⁶ Moretti contrasts such a teleological view of narrative with what he calls the "transformation principle", namely the idea that "what makes a story meaningful is its narrativity, its being an open-ended process. Meaning is the result not of fulfilled teleology, but rather, as for Darwin, of the total rejection of such a solution." (7) This, of course, comes much closer to what we understand as future narration.

³⁷ Miller similarly argues that "[t]he promise of closure is part of our motivation for reading. If we feel that we are not moving toward it as we read, we become frustrated."

sequence, and by ordering the events of our lives in this way, we assume that a certain degree of narrative meaning is bestowed onto them. At the same time, narrative is also a central human means of coordinating and controlling time, as Ricœur has famously noted. The question of how to reconcile this deep-rooted connection between narrative, teleology, and sequential temporality with the exposition of ‘what is yet undecided’ in FNs, which work against structural finality, is one of the central issues in establishing a narratological model of future narration (and such a model will be introduced later on in this chapter).

Future narratives, confronting the recipient with bifurcations, options for selection, and the potential of interactivity, thus entail wider-reaching narrative and epistemological implications than simply ‘breaking up’ the chronology of the reading process. They compel readers to reconsider their original conceptions of *what narrative is*, and, indeed, what they *expect from narrative* in the first place. FNs go beyond a mere disruption of readerly complacency, as they actually transfer the task of narrative selection onto an agent (the recipient in interactive variants of future narration), who activates narrative content through decision making at each node. While this initially sounds like an enticingly promising offer, readers may, in fact, perceive these elements of active choice as nuisances, as disturbances in their creation of a holistic and structurally closed narrative:

The fixed arrangement of pages always militates in favor of that automatic reading from first to last, which branching narrative attempts to subvert. Thus, the more intricate page-turning a text demands, the more conscious its reader is likely to become of the native sequence that he is being made to violate. Instead of liberating the narrative imagination, the technical difficulty of polysequential books instead is likely to emphasize the unnaturalness of their unusual procedures. (Moulthrop and Kaplan 12)

Multi-linear print fiction thus not only defamiliarizes the reader from her understanding of a uni-linear reading process; such texts also explicitly call attention to what Moulthrop and Kaplan term narrative ‘unnaturalness’ in the above passage, once more indicating how strongly storytelling and uni-linearity are usually associated with each other. The continuation-by-choice structure of FNs estranges readers *from the reading process itself*, and it may be this sense of estrangement which prevents a satisfactory degree of immersion in printed multi-linear narratives (once more, with the exception of CYOA books, which facilitate immersion by the second-person address and by providing the reader with a clear sense of consequentiality). When the reader is invited to participate in the creation of the text by way of her choices, she is also made explicitly aware of the text’s structural configuration and materiality, which in turn generates a distinct consciousness of the reading experience itself that may prevent her from losing herself within the fictional world of the narrative. It is thus exactly the performative nature of

multipath texts that hampers immersion to a degree that can potentially thwart pleasurable contact with the text – *potentially*, because as will be shown in this study, there are textual FNs which functionalize structural openness successfully and strain against the limitations of the bound book in spectacular ways.

3.1.2 Problematical Presence

Another, perhaps even more pressing constraint working against a smooth implementation of future narration within the traditional book form involves the bound physicality of the printed medium, “where textual elements are fixed both by the material page and by the material dimensions of the book as a whole.” (Ciccoricco 22) Despite already mentioned attempts to break through this physicality (in, for example, cut-up), it is considerably more difficult to incorporate structural openness into a book than it is in the case of electronic narrative; B.S. Johnson expresses his dissatisfaction with the medial constraints of print fiction in the introduction to his unbound novel *The Unfortunates* by observing that “the bound book imposes an order, a fixed page order, on the material.” (ix)³⁸ One of the most frequently cited examples of this order that the book cannot avoid may also serve as case in point here: when the narrator in John Fowles’ novel *The French Lieutenant’s Woman* (1969) presents us with an ‘ending’ to his story roughly three quarters of the way into the book, we cannot help but be aware of the fact that this is certainly not the ending proper, because we are holding the book in our hands and can easily see that well over one hundred pages remain to be read.³⁹ In this sense, the premature finale is recognizable as a ‘mock ending’ as soon as it is encountered due to the “beginnings and endings and even middles made so eminently clear by the book form.” (Parker 44) The suggested potentiality of the novel’s openness is never fully allowed to unfold because the materiality of the medium literally works against it. In this, *The French Lieutenant’s Woman* is no exception: most books striving toward formal multipath structures face the limitations of the bound page in this or a similar way. The sense of immersing oneself within the complexity of the textual network, easily generated by hyperfiction or video games, for example, is counteracted in print fiction by the reader’s

³⁸ Parker remarks on the “linear nature of the book form and the apparatus connected to it: title pages, tables of contents, page numbers, and often even those words that signal finality – ‘The End’” (43–44). Similarly, Gross notes that “the text in its printed form [...] provides material assurance that the outcome is predetermined and certain” (62).

³⁹ Watt likewise observes that “while we read these lines the weight on our right hand is warning us that there are still many pages to come” (“Traditional”).

awareness of her location in the narrative overall structure, even if this structure is disrupted by the offering of multiple pathways. The narrator of Shelley Jackson's hypertext novel *Patchwork Girl* describes this unavoidable sense of orientation the printed book provides: "When I open a book I know where I am [...]. My reading is spatial and even volumetric. I tell myself, I am a third of the way down through a rectangular solid, I am a quarter of the way down the page. I am here on the page, here on this line, here, here, here." ("this writing") The reader of a hard-copy text can therefore never achieve a sense of truly being 'lost' in the structure of the book, as she will always be aware of its overall scope and dimension. Or, to regard the problem from another angle: as much as a printed book may try to engage the reader in multipath, branching story sequences, it is literally 'bound' to its status as a fixed material artefact. A book that flaunts its own ability to lead the reader into different directions within its construction will inevitably also have to exhibit the limits of this feat, so that a comment on the potentiality of options at the same time becomes a withdrawing of options, a display of the inescapability of bound pages.

Are printed texts, then, simply unfit to simulate structural multiplicity because of their very state as physical-material objects? This seems too easy a conclusion, and it is one that has, in fact, been questioned by leading figures working in the field of multi-linear storytelling. Mark Z. Danielewski, author of the print-as-hypertext, multimodal fiction *House of Leaves* (2000), argues against the restrictions that print fiction seems to face, as

books don't have to be so limited. They can intensify informational content and experience. Multiple stories can lay side by side on the page. [...] Words can also be colored and those colors can have meaning. How quickly pages are turned or not turned can be addressed. Hell, pages can be tilted, turned upside down, even read backwards. [...] Books have had this capacity all along. [...] Books are remarkable constructions with enormous possibilities. [...] But somehow the analogue powers of these wonderful bundles of paper have been forgotten. Somewhere along the way, all its possibilities were denied. (Cottrell)

Danielewski constitutes here that 'bundles of paper' are not inherently opposed to structural openness, but that the potential they carry to be multi-linear, participatory and formally polyvalent is simply not (yet) accessed by those who create them (though he fails to give a concrete reason for this phenomenon that occurred "somewhere along the way"). Aarseth similarly observes that "[t]he book is well suited to linear discourse but is just as accommodating toward non-linear discourse, as an encyclopedia or a forking-path story." (*Cybertext* 46)⁴⁰

⁴⁰ A related argument is made by Cohen, who maintains that "a genre theory of the novel is committed to backgrounding literary artifice, to demanding coherence, unity, and linear conti-

Both standpoints are, of course, plausible, and the multipath printed texts discussed in this study testify to the fact that implementing non-sequentiality into a hard-copy book is not impossible *per se*. The fact, however, that nodes, while they may be realized as a structural property of print, are hardly ever successfully *functionalized* (in the sense of providing us with truly open and unpredictable reading/playing experiences) is undeniable, and one explanation for this surely lies in the readerly expectations of unity and linearity mentioned earlier, expectations which not only govern the individual recipient's attitude toward fiction, but also, to some extent, the literary market as a whole.⁴¹ The scepticism of creators and recipients alike to multipath, interactive printed fiction suggests that – with notable exceptions, such as the highly acclaimed works of Danielewski, Julio Cortázar, Milorad Pavic, and others – structural openness is perceived as a detriment, not an advantage, by most fiction readers. This must be acknowledged, and, indeed, it tells us quite a lot about the importance of narrative to our very existence as humans: we may not be willing to relinquish uni-linear narrative sequence, teleology, and the experience of reading for the end exactly *because* these aspects of storytelling are so vital to who we are as human beings. Or, as Landow concedes, “[p]erhaps linear narrative has too much human importance to abandon.” (*Hypertext 3.0* 265)

3.1.3 Imagining Optionality

Despite all the possible hindrances to an implementation of interactive mechanisms into textual narratives sketched above, we must remember that narrative is a phenomenon that has always played with the formation of different possible outcomes resulting from one situation. In a *thematic* sense, the novel (as the most influential representative of storytelling) has privileged individual experience over a determined collective experience from the hour of its birth (cf. Watt, *Rise* 14). The novel serves as a stage for examining human behaviour in specific circumstances, and its focus on individuality contains the seed for speculation on personal choices, alternative possibilities, and the status of the indi-

nity. But though such an assumption may apply to some generic theories, there are others that are perfectly compatible with multiple discourses, with narratives of discontinuity, with transgressed boundaries” (11).

⁴¹ Literary hypertext, too, failed to establish itself as a commercially successful phenomenon, and presumably, for many of the same reasons. Though the digital format more readily lends itself to the implementation of openness, the lack of sequentiality and teleological coherence severely hampers the development of satisfying narrative experiences and readerly immersion into a story. Also see Chapter 4.5.2.

vidual within a contingent universe: the very seed, in other words, which FNs turn into structural branching and reader choice making. This speculation often manifests itself in character contemplation on possibilities beyond their actual state; Hillary Dannenberg's study *Coincidence and Counterfactuality*, already introduced in Chapter 2.3, has carefully traced the implementation of counterfactual thinking within the development of the novel and identifies the aspect of counterfactuality as a prominent theme in literary writings since their beginnings, mirroring the 'natural' human tendency to consider alternatives to the way things have turned out: "Speculations by characters in novels about how their life might have developed differently [...] constitute a highly realistic technique of character depiction that simulates human cognitive activity." (3–4) Though such speculative creations of stratified possibilities by characters are not to be classified as FNs in any respect, since they do not affect the text on a structural level, they certainly gesture toward the status of narrative fiction as an engine for the imaginative simulation of situational and individual possibility. In quite a different sense, this also surfaces during the novel's infancy through the thematic preoccupation with themes of chance and gambling – themes that, too, highlight the unpredictability and openness of human existence to a range of potential (and potentially different) outcomes. Molesworth has pointed out the fascinating correlation between the rise of fictionality in eighteenth-century England and the "lottery fever" (32) spreading through British culture at the time; he argues that "for the lottery addict coincidences betoken significance rather than accident – necessary events that cannot be ignored – much as they would in a novel." (35) That is, both the lottery player and the novel attempt to 'emplot' chance events into a narrative structure, and chance becomes a meaningful entity "rather than being left as pure happenstance." (*ibid.*) The haphazard nature of chance is thus fictionalized in the 18th century, both as a real-life phenomenon and as a topic of early novels, which feature an impressive array of gambling, card-playing, dice-throwing, and other games of luck.⁴² This topical focus on chance, considered in more detail in Chapter 4.1, testifies to the fact that narrative fiction has taken an interest in optionality and the multiplicity of possibility from the start; the question of how things could have gone, or how they may develop in the future, is a central preoccupation of novelistic art. Again, it is important to repeat that such texts do not fall within the category of FNs, but they provide a thematic angle on what FNs structurally implement by way of nodes and choice situations.

The novel as a site for the imaginative exploration of possibility also operates on a more purely temporal level, through what Dannenberg has termed the

⁴² Also see *Narrating Futures* Volume 1, part 3.

“temporal orchestration of alternate world versions”, in which “more than one version of the past or future is suggested as a possibility by the text.” (*Coincidence* 46) Many fictional texts (and especially, though by no means exclusively, those of postmodernity) thus *thematize* the potential of any moment to evolve over time into different possible outcomes.⁴³ Obvious examples of this thematization of temporal fluidity are stories of alternate history or of a ‘multiverse’, time travel fiction, as well as all instances of counterfactual thinking in the novel. *Imagined temporal multi-linearity*, in this sense, has accompanied fiction writing, and in particular the novel, from the very start, as this genre not only creates alternative worlds through plot and characters, but also explores alternative time lines. It is the structural implementation of this multi-linearity that proves difficult for the printed text, but the speculation on possibility and the openness of the future is something *intrinsic to* narrative, not an aberration by any means. This is important to recall because the printed text appears to be, in the context of FNs, a somewhat limited affair (for all of the reasons sketched in the previous sections of this chapter, and they are certainly valid reasons) – these limitations do not, however, lessen the novel’s strength as a site for imaginative potentiality. Interestingly, such notional multiplicity of versions offered by the novel does *not*, as in the case of formal multipath narration, serve to estrange the reader, but on the contrary, makes the fictional universe and its conditions seem more *like* the world she lives in: “counterfactual narratives play a key contributory role to realist fiction’s simulation of a credible environment that in turn sustains the immersed reader’s belief in the narrative world.” (Dannenberg, *Coincidence* 30) We can thus note a discrepancy between readers’ responses to imaginary multi-linearity and to structural multi-linearity – the cognitive principles which we very willingly apply to texts where different options are thought out seem to become much more problematic once the step is taken to formally include different possibilities. When Dannenberg constitutes that “[t]he ability of texts to create immersive states in the reader is closely bound up with the text’s ability to draw the reader into a complex mental engagement with the narrative world by suggesting a variety of possible versions of events” (36), the key term in this argument is *suggesting*, as the reader will pleasurably *consider* what might have been in the

43 Indeed, Shearer observes that “[s]tories are mental run-throughs which provide an opportunity to identify possible obstacles, assess the potential for success, and, moreover, do so without suffering the repercussions of failure.” (824) That is, the novel as a genre tries to imaginatively transcend its (more or less) physically closed status; while such narratives do not *perform* (or enable the recipient to perform) the openness of the future, they do address these factors as topics that significantly shape both the characters’ actions within the story and the general epistemological status of the text.

narrative universe when she is able to rely on and follow a plotline that remains linear despite such counterfactual contemplations.

What has surfaced from these discussions of the printed text's ability to realize truly open choice situations is that despite its affinity toward imaginative multi-linearity, the book is defined by *presence*, and this presence – the presence of all options, of all narrated material, of all outcomes – arguably counteracts an experience of true undecidability or unpredictability. This is not to say that FNs do not exist in print; they certainly do, and the typology presented in Chapter 4 will offer a whole range of possibilities for narrating the future in text; however, future narration is not a phenomenon that comes *naturally* to print fiction. To this we must concede, and the reasons for the printed book's hesitancy regarding open structures, already outlined in the preceding paragraphs, will continue to concern us for the rest of this study. When, then, does the turning point toward true formal multiplicity in text come into view? Murray provides the answer to this question when she claims that “[t]o capture [...] a constantly bifurcating plotline, [...] one would need more than a thick labyrinthine novel or a sequence of films. To truly capture such cascading permutations, one would need a computer.” (*Hamlet* 38)

Attempts at breaking through the linear sequence of narrative and including different possibilities for continuation are truly successful at the point where literary texts are transferred into the digital medium. That is, with the arrival of electronic storytelling (be it in the form of interactive fiction, hyperfiction, or, by extent, alternate reality gaming) can the full potential of structural openness and choice implementation within the genre of narrative literature be realized. What the conventional printed text is not easily able, or indeed, willing to provide in terms of openness is, of course, quite effortlessly achieved in forms of digital narration, since the format of linked ‘lexia’ readily lends itself to creating different reading paths through one network of nodes. The transition from page to screen is thus also the step where *narrating the future* is possible in all its potentiality, where bifurcation becomes the central structural element rather than an eccentric (and often unwelcome) aberration from the norm. It is the point at which the thematization of a situation's ability to branch off into different continuations is transposed into the formal makeup of the work, where narrative's tendency to imagine alternative possibilities is physically realizable – and realized. That is, the mechanisms of forking paths and progression-by-selection are not only inherent, but indeed *necessary* constituents of an electronic text's structure, since only the active choice of the reader/player will make it possible for the text to sequentially ‘unfold’ itself. Each screen (unless it is marked as an ending) thus contains at least one node, which must be activated in order to change to a subsequent section of text. In this sense, digital narrations such as hypertext fictions

(in which the attempt to transform story into an electronic phenomenon can most clearly be traced) are, structurally speaking, the most intricate form of textual FNs, with their simpler printed predecessors being Choose-Your-Own-Adventure stories and forking-path narratives.⁴⁴ Again, it must be pointed out that the move into an electronic medium facilitates, to say the least, the realization of narrating the future in text, but future narration happens everywhere in the narrative cosmos – it is a matter of ease, not of principle, to what extent a medium lends itself to the implementation of nodal structures. On the extreme end of the scale, alternate reality games go far beyond the structural multiplicity of even very intricate electronic narratives, as they include elaborate multimedial material and the online- and offline-communication of a large number of individual storytellers. Chapter 4 will consider different forms of textual FNs in the very widest sense – from early print predecessors to complex alternate reality games – in more detail; as groundwork for such a typology, the rest of this chapter introduces basic structural characteristics of FNs and the possibilities of navigation that these structures afford.

3.2 Nodes and Bifurcation: The Essence of Future Narratives

The lowest common denominator of any future narrative, whether in print or in other media, is the *node*. As has already been acknowledged in the introduction of this study, any narrative must contain at least one node to be categorized as a FN. The node can very generally be characterized as any point in a narrative that allows for more than one continuation and so enables a structural bi- or multi-furcation. The implementation of openness by way of nodes within a narrative artefact is what distinguishes FNs from PNs (or narratives in the traditional sense of narratology), in which one path through the story has already been chosen, all other options having been eliminated as a result. In PNs, we can therefore speak only of ‘dead’ nodes, or nodes that have already been traversed, which inevitably cancels out multiplicity or the possibility choice on a structural level. But then, these are no longer nodes at all, because what defines a node is its potential to explode into diverse outcomes, and this is something that obviously goes missing

⁴⁴ As will become clear from the discussion of digital narrative in Chapter 4.5, however, these structural advantages that electronic storytelling entails do not guarantee the generation of ‘successful’ FNs in the sense of creating meaningful choice situations or a sense of readerly agency; what digital narrative enables in terms of formal multiplicity, it often lacks in terms of decision consequence.

once a node has been activated. The node, then, is something which is reserved for FNs, and which defines them as a separate genre of storytelling.

The initial definition of ‘node’ already generates one of the central questions within the conceptualization of this idea with respect to narrative, namely which shape or ‘*gestalt*’ such a node can take. This question applies with particular force to textual FNs, as the texts considered in the present study feature a highly diverse range of nodes, enabling very different forms of choice mechanisms: from flipping between pages in the printed book to activating digital hyperlinks or, in performative modes of narration such as alternate reality gaming, spontaneously reacting to a set of given parameters. How such nodes concretely manifest themselves in narrative texts is dependent both on the materiality and the mediality of the specific narrative artefact. In a general sense, the idea of the node can be conceptually extended to include *all situations which contain the possibility of structural bifurcation*, a framing which liberates the notion from the limited (and limiting) spatiality implied by the terms ‘node’ or, even more strongly, ‘nodal point’. In structurally simple variants of the textual FN, such as the CYOA-book, it may still be feasible to speak of ‘point’ when referring to the offered bifurcations – it is the location at which the reader is presented with different options as to how to continue the story at the end of each chapter. This is a ‘point’ in the narrative on which we can (quite literally) put our finger to identify the node. However, in many FN variants of the complex kind, it becomes very difficult, if not impossible, to ‘pinpoint’ *the* node, as the option for choice manifests itself as an open, polyvalent situation, as an invitation to play rather than as a concretely localizable spot. Even in some printed texts, such as Mark Z. Danielewski’s *House of Leaves* (2000), bifurcation surfaces not at specific positions within the text, but as a potential for reader empowerment within its overall structure.⁴⁵ The concept of *nodal situation* therefore succeeds in doing justice to the variety of bifurcating mechanisms included in the range of FNs on a broader level; the term *nodal point*, however, serves well as abstraction, to designate the visual representation of a nodal situation within a graph. We thus distinguish between the two in this respect – nodal situations are present as situations that enable more than one

⁴⁵ Danielewski’s novel contains pages with different sections and ‘boxes’ of text, without any indication how or in what order the reader should encounter these. Here, it is no longer possible to specify the existence of one (or even several) distinct nodes, but the *whole page* generates a nodal situation in which the reader is prompted to choose which (if any) text segments she wants to read in which order. For more on this type of multimodal narrative, see Chapter 4.4.2.

continuation within the textual structure; nodal points are the abstract representation of such nodal situations in a graphical modelling of a FN's structure.⁴⁶

3.3 Architecture, Run, Protocol: A Three-Level Narratological Model for FNs

In order to narratologically grasp the implications of formally opening up a text to include nodes, we must operate with an analytical model that is able to differentiate between the deep structure of a FN (its status as a mechanism of enablement, that is) and individual realizations of this structure by a performing agent. While, in PNs, the sequence of events presented is not affected by different readings (the order in which these events are encountered never changes, no matter how many times the text is read), what makes FNs special is precisely the fact that they allow different realizations of one nodal structure – that they permit, indeed encourage, the creation of different narrative sequences. In other words, the arrangement of nodes in a FN constitutes the textual *architecture* which, by including at least one option for bifurcation, enables different performances or *runs*. By definition, a text can only be regarded as operating on the basis of an architecture if the number of its possible performative realizations exceeds one; that is, architectural scripts allow for multiplicity where uni-linear narratives present only one possible run that has already been actualized. This differentiation between architecture and run(s) in FNs is necessary to account for the fact that any 'reading' of such a narrative is always only *one* of multiple possibilities. While the architecture includes the rule system and nodal configuration of a FN – in short, the deep structure underlying all possible actualizations –, the run is the concrete realization of this deep structure by an individual agent (or, in the case of collaborative storytelling, by multiple agents). The differentiation between architecture and run thus signifies the difference between “the text as it is” and the text that “each reader discursively brings [...] into view.” (Ciccoricco 61) In this sense, FNs are tangentially related to other forms of deep-structure scripts such as musical scores or dramatic texts, which likewise serve as ‘blueprints’ for a performance still to be actualized, with the “invariability of the script” contrasting the “variability of its execution.” (Ryan, “Multivariant” 416) Such a distinction between narrative as deep structure and performance has, of course, been drawn before; Umberto Eco, for instance, has identified the work of art as ‘open’ to the participatory involvement of the recipient and argues that “[e]very performance

⁴⁶ For a more detailed account of these graphical representations, see Volume 1 of the *Narrating Futures* series.

makes the work an actuality, but is itself only complementary to all possible other performances of the work.” (15) Eco’s concept of the ‘open work’ testifies to the fact that drawing a distinction between potentiality and actuality more sharply focuses status of the literary text as a “construction kit” (*ibid.* 19) which is subject to different realizations by different readers, but the difficulty in his approach lies in his grouping such heterogeneous phenomena of ‘openness’ together as the elusiveness of symbolist poetry by Verlaine and Mallarmé, the dense referential ambiguity of Joyce’s *Ulysses*, and the participatory, spontaneous compositions of John Cage.⁴⁷ He, in other words, regards openness as a phenomenon that can occur in texts that invite a heightened interpretative effort (openness here being synonymous to the broadness of interpretation) *and* as a structural feature of literary works; this is a much more general and diversified understanding of openness than we posit as the structural openness of FNs, which is determined and shaped by the prevalence of nodes. More helpful in the context of NAFU, because more clearly focused on textual structure, is Aarseth’s differentiation between a text as potential and actualization in his concept of ergodic literature. In *Cyber-text*, he proposes that

It is useful to distinguish between strings [of signs] as they appear to readers and strings as they exist in the text, since these may not always be the same. For want of better terms, I call the former scriptons and the latter textons. [...] In a book such as Raymond Queneau’s sonnet machine *Cent mille milliards de poèmes* [...], where the user folds the lines in the book to ‘compose’ sonnets, there are only 140 textons but these combine into 100,000,000,000,000 possible scriptons. (62)

While Aarseth’s ‘textons’ are the chunks of text constituting the ‘material’ of an ergodic work, the ‘scriptons’ are what the user actually encounters during an individual performance. Readers may not be able to access all scriptons in one given sitting (indeed, this would be impossible in a text such as *Cent mille milliards*, or even in most complex hyperfictions), and so Aarseth’s concept of scriptons translates to that of ‘content producible by a script’. His model highlights the essential division between the text as a structure of *enablement* and any *activation* of this structure; this is a division which is fundamental both to his concept of cybertext and to the definition of a FN. Due to their open and – by definition – undeter-

⁴⁷ Eco’s semantics of the open work are, indeed, centrally concerned with the interpretative openness of any aesthetic artefact: “A work of art [...] is a complete and *closed* form in its uniqueness as a balanced, organic whole, while at the same time constituting an *open* product on account of its susceptibility to countless different interpretations which do not impinge on its unadulterable specificity. Hence, every reception of a work of art is both an *interpretation* and a *performance* of it, because in every reception the work takes on a fresh perspective for itself” (4).

mined and dynamic structure, FNs acquire their full meaning only through *being performed*. This applies to all types of future narration, from the children's gamebook to ARGs: without an agent who negotiates the nodal situation(s) of a text, no story can be unfolded.

The architecture of a FN determines the parameters and possibilities of any single performance. Its most fundamental element is the respective nodal structure of the work – we will look at such different structures in section 13 of this chapter, so suffice it here to note that it inevitably makes a difference whether the reader encounters a unidirectional tree structure or a complex, bidirectional network (the difference being one of the possibility of returning, which also influences the degree of perceived consequence). The nodal structure is quite literally the blueprint containing all possible realizations of this structure by a reader, user, or player. In textual FNs, we find very different types of nodal structures, from strictly binary branching mechanisms in CYOA gamebooks to intricate feedback-informed circular networks, but identifying these structures is only the first step in analyzing the potentiality of any given textual architecture. What is no less important is the rule system that the text superimposes on this formal configuration – or, indeed, whether it imposes a noticeable rule system at all. Again, regarding FNs in text, it makes for a crucially different reading experience whether the text informs us that we can choose *a* or *b* at a given point, or whether the possibility for choice is hidden within the narrative by way of covert nodes (in the former case, we immediately realize that we are in a choice situation, while in the latter, the text literally makes us search for possibility, for continuations beyond itself). The rules of the text are implemented within the architecture, and they will tangibly influence any concrete run. Inherent in this rule system are, more specifically, entry points into and exit points out of the text, instructions by a 'game master' (such as the directives in CYOA books, which are clearly not uttered by any instance within the storyworld, but are part of its set of ludic regulations), options for re-circling and/or returning to a prior point in the text, and the setup of a pre-determined goal or endpoint – in short, any and all aspects of the architecture that determine the possibilities a reader is endowed with during an individual run. These possibilities increase, as may be expected, proportionally to the intricacy and structural sophistication of a textual FN, so that the binary possibility of choosing *a* over *b* in a gamebook yields to a whole spectrum of options in complex storytelling mechanisms such as the ARG. The gradient of medial and configurational complexity of a text can generally be seen to run parallel, then, to its offering of optionality.

Any run or performance of a given architecture constitutes an individual experience of the storyworld that is shaped by the deep structure of the text itself and by the decisions of an agent encountering the text's nodal situations (in most

cases, the reader herself, or, more rarely, a character within the narrative). The term ‘performance’ as a surrogate for ‘run’ suggests that the negotiation of nodes entails deeper implications than simply actualizing a given structure in different ways. While it may neither be desirable, nor, in fact, possible to trace every run of a future narrative (more on this later), how strongly a text privileges the notion of performance as “an act of immediacy, of looking towards spontaneity and ‘never-before-occurring’ situations encompassing aspects of risk and chance” (Dewsbury 474) reveals its preoccupation with *becoming*, transformation, and happening within the textual experience. The importance of the performative element is arguably heightened in a degree parallel to the ‘radicality’ of a FN (that is, how large the spread of openness is that it offers within its nodal situations), though any future narrative, even of the simplest kind, must by definition enable more than one run or performance of the architecture.⁴⁸ How many runs a FN enables, and how different these runs are from each other, testifies to its structural complexity, and to the degree to which it privileges the factors of individual agency, choice making, and interactivity. Again, regarding the types of FNs examined in this study, genres such as the alternate reality game or the large field of hyperfiction enable a higher number of individual reader performances than simple print variants (though here, too, we find notable exceptions, such as the impossibly high number of runs in Queneau’s sonnet machine), and thus privilege performativity more strongly than, say, a simple multiple-endings tale. Ryan (“Multivariant” 418) argues that “every run of a digital text can be turned into a performance of different virtualities”, as the computer allows the generation of an immense amount of different runs, and this is evidently due to its advantages in information processing and storage when compared to any printed text.⁴⁹ Many critics have, in fact, commented upon the performative nature of hypertext fiction in particular; digital textuality has, for example, been characterized as a “happening” by Raley “[i]n that it bears a certain similarity to the temporal and empirical structures of performance art.” (“Reveal Codes”)⁵⁰ The performance element is,

48 Dewsbury notes that “[t]he performative is the gap, the rupture, the spacing that unfolds the next moment allowing change to happen.” (474–475) It is exactly within this gap that the semantic potential of future narrative is located.

49 Murray has similarly pointed to the computer’s performative potential: “The computer is providing us with a new stage for the creation of participatory theater. We are gradually learning to do what actors do, to enact emotionally authentic experiences that we know are not ‘real.’ The more persuasive the sensory representation of the digital space, the more we feel that we are present in the virtual world and the wider the range of actions we will seek to perform there” (*Hamlet* 125).

50 Because “[h]ypertext does not adhere to a fixed, rule-based system [but] takes on the quality of disturbed, deferred, bifurcated movement”, Raley argues, “its performance is that of the trace,

of course, even stronger in alternate reality games, as “[a]ll game play is performance. There is no gaming without performance” (McGonigal, “All Game Play is Performance”) – these multimedial narratives depend on reader/player performance to an extreme degree, since only their actions and decisions are able to create story content at all. It thus becomes apparent that there is a noticeable correlation between the degree to which a text functionalizes gameplay and the degree to which it emanates performativity in the sense of becoming: the more openly ‘ludic’ a text is, the more openly it will privilege performance as part of the reading/playing experience.

While the architecture of a FN intrinsically harbours potentiality and multiplicity by containing nodal situations, the trace that the performance of the reader/player leaves behind is uni-linear, and necessarily so – by having chosen one variant of traversing the text, the reader/player has created a past narrative of her own. In other words, while the performance *is* the playing of the text, the narrative constituted by this performance is the *protocol*. This protocol, or ‘narrative trace’, can have very different material forms in different textual media. In print FNs, it proves to be paradoxically ephemeral, since, unless the reader in some way marks or records his reading path through the text, the protocol will be formed only as cognitive processing of one single reading performance. As present as the printed text is as a material artefact, as intangible are the individual protocols it generates. In hypertextual narrative or interactive fiction, on the other hand, the reader is often able to ‘save’ a specific reading of the text, which would then enable a material recording of the protocol.⁵¹ In the case of alternate reality gaming, what can be considered the protocol is ultimately more complex, since the collaborative and multimedial status of these narratives generates equally multiform narrative results, including websites, protocols of online communication, collections of images, and other multimedial artefacts. The crucial difference between a conventional PN and the PN that a protocol constitutes as a result reading and/or playing a FN lies in the potential disparity between text and actualization – in a novel, for instance, the textual architecture is coextensive with the protocol, as it is impossible to reconfigure the narrative order with any individual reading of it. Things already look very different in a Choose-Your-Own-Adventure gamebook, where the nodal architecture is still contained in the book, but not equal to individual runs of this architecture. Regarding digital

emphasizing not only the play of difference, but also open systems, feedback loops, a flattened network, links, and the interval between links [...]” (“Reveal Codes”).

51 Similar possibilities exist in video gaming, where a ‘walkthrough’ represents the optimal path through a game’s structure in order to win – this also is a form of protocol, an ‘optimized’ narrative trace, so to speak.

narratives such as hyperfictions or interactive fictions, the discrepancy between architecture and protocol becomes decisively apparent, as the architecture is, in these forms of textuality, *hidden* from the reader/player in the sense that exists as digital code and not as text between the pages of a book. The possibility of an overview of the total architecture is therefore only given if the hypertext author has provided a navigational ‘map’ of the narrative (as is the case, for example, in Shelley Jackson’s *Patchwork Girl*), but it is not part of the reading experience itself.

The differentiation between architecture, performance, and protocol in future narration brings the aspect of *activation* into focus, specifying it as a determining factor for the generation of narrative content. While traditional narratological models are not able to account for emergent openness and structural multi-linearity, as they are based on conceptions of sequentiality and retrospectivity, the three-tiered model offered here separates the potentiality of a narrative from its actuality – it designates FNs as enabling spaces of possibility, which are not realized before the narrative is run through. The aspect of activation thus becomes central in the transition from potentiality to actuality, as the representation of the reading/playing process is not necessarily equal to the deep structure enabling this process. The differentiation also serves to clarify the difference between a structural and an empirical attitude toward this genre. On a formalized level, it is in fact only possible to evaluate the architecture of a FN, since any performance will directly depend on an individual user and her choices within the given nodal structure. The rule system, nodal configuration, and mediality of a FN are thus all factors which comprise the architecture, and which can be assessed to determine the overall nodal power of a future narrative.⁵² The potential actualizations of a future narrative are also, of course, determined by the architecture, but any one of them could only be assessed through empirical research, which goes beyond the scope of this study. Indeed, to structurally assess a FN, it is not necessary to trace all performances a given text has to offer – and in some variants, it may not even be possible to actualize all performances, as, for example, in the ‘sonnet machine’ *Cent mille milliards*, which Motte (722) has called an “inexhaustible” text.⁵³ Even in less dramatically plural varieties of the genre, such as in many

⁵² The term ‘nodal power’ designates the potentiality (i.e., the degree of outcome variation) of a given nodal situation – in other words, the degree to which such a situation is ‘open’. Chapter 3.12 discusses this concept in greater detail.

⁵³ Underlining the impossibility of ever ‘finishing’ this text in the sense of completing all possible run-throughs, Motte cites Queneau’s foreword to his sonnet machine where the author “mentions that a very assiduous reader, one willing to read at the rate of twenty-four hours a day, 365 days a year, would need almost 2 million centuries to finish the text” (*ibid.*).

hyperfictions, the reader/player will not encounter every feasible path through the textual structure, as there is a surplus of possibilities that cannot all be actualized during one sitting. Analyzing FNs is not about an exhaustive account of its individual runs, but about looking at how their structure functions as a mechanism of enablement: which kinds of choices it offers, which paths the reader can tread through the storyworld, and which consequences her actions have for the text in question.

3.4 The Responsiveness of the System: Activity vs. Interactivity

Having noted the importance of activation in the context of future narration, it would seem an easy conclusion to characterize FNs as being interactive systems of storytelling. Indeed, the architecture of a FN (comprised of its nodal structure and rule system) may well enable interactivity – many variants within the genre are based on an interactive exchange between the medium and the reader/player, who will, in more advanced types such as IF, also experience a sense of agency while ‘playing’ the narrative (the difference between interactivity and agency has already been specified in Chapter 2.5). However, we must remind ourselves that this aspect of interactivity is not in any sense a necessary precondition for grouping a text under the heading of future narration – films such as Tom Tykwer’s *Run Lola Run*, for example, present a FN which has already been played through, in which there is no active choice between options, but merely a demonstration of the total number of options the text offers (in the film, Lola ‘experiences’ three different versions of how things may develop after the decisive phone call by Manni). A similar argument could be made in the case of multiple endings novels such as *The French Lieutenant’s Woman*, which showcase different outcomes of one situation, but necessarily do this sequentially, placing one ending after another. Nonetheless, by including a node that allows for different continuations, both Fowles’ novel and *Run Lola Run* qualify as FNs, though they enable no ‘active’ participation of the recipient beyond encountering the various possibilities and potentially ordering or weighing them against each other cognitively. Interactivity, then, is a possible medial feature that conveniently supports what FNs aim to do, but it is not an intrinsic quality of all FNs. In fact, classifying a future narrative as interactive goes far beyond the question of whether a text offers choice to its readers; in order to employ the concept of interactivity as a fruitful tool used to distinguish between different kinds of FNs, we must take into account the semblance of responsiveness, which the medium provides into which the narrative is inscribed.

Like narrative, interactivity is a term that has generated a significant degree of definitory activity, not always with the result of reducing problems of ambiguity.⁵⁴ Ryan's typology of interactivity (cf. *Avatars* 108–120), in which she differentiates between four different variants – external-exploratory, internal-exploratory, external-ontological, and internal-ontological – may be the most extensive attempt thus far to categorize the phenomenon in narrative; while the external/internal dichotomy refers to the user's degree of presence in the fictional world (the question being whether the user acts through a virtual character or avatar within the story), the exploratory/ontological divide denotes the consequences which the user's presence has on the fictional world itself (i.e., whether she can directly affect this world with her actions).⁵⁵ What Ryan's approach and numerous other definitions of interactivity that exist (cf. Zimmerman, Laurel, Kocher) ignore almost across the board is the prefix 'inter' in interactivity: most often, an interactive text is classified as any text that prompts more than a 'conventional' reaction on the part of the reader, for example, by offering a choice between alternatives.⁵⁶ Many definitions of interactivity thus focus on the user and the possibilities of navigation and choice a text affords her, and less clearly on the role of the medium as a generator of responses that can be *perceived as* interactive. This becomes especially symptomatic in typologies of the term that include a 'cognitive' variant of interactivity – i.e., participation with the text through readerly interpretation – within their scale (for instance, cf. Zimmerman). Though there are certainly many types of texts that call upon the reader to increase her effort of decoding (any type of 'disruptive' textual strategy such as multiperspectivity, unreliable narration, metafiction, fragmentation, a-chronology etc. would prompt such an increase), assigning them the quality of interactivity unnecessarily waters down the concept to a degree that almost any postmodern text would have to be included in its scope. Not only does there exist confusion of the reader's interpretative activity with

54 Aarseth does away with the term 'interactivity' altogether, arguing that "[i]t is a purely ideological term, projecting an unfocused fantasy rather than a concept of any analytical substance. [...] [I]nteractive fiction is perhaps best understood as a fiction: the fiction of interactivity" (*Cybertext* 51).

55 For an extensive critical evaluation of Ryan's typology, see *Narrating Futures* Vol.1, 1.13.

56 Ryan, with reference to a term introduced by Söke Dinkla, even features the concept of "'reactive' interaction, which does not involve any kind of deliberate action on the part of the appreciator", within her discussion of interactivity, her example for this type being "an artwork [...] [that] react[s] to the amount of noise in the room and display[s] different images depending on whether the visitors are quiet or speaking." (*Virtual Reality* 205) This is an even more limited usage of the concept, and one that entirely does away with interactivity as a two-way process of which both communication partners must be conscious in order to engage meaningfully.

the concept of interactivity; the formal configuration of texts, too, often generates misleading associations with this concept. Many definitions of interactivity, for instance, take the Choose-Your-Own-Adventure book as its primary example for this strategy in the printed text, interactivity here being used synonymously with a rule structure that affords the reader choices: “Intuitively, there is in fact some kind of difference between a typical linear book and a choose-your-own-adventure book. And it seems that the difference in some way is that naughty concept of interactivity.” (Zimmerman 158) Note the numerous qualifying terms in this statement: *intuitively; some kind of difference; it seems; in some way; naughty concept*. Zimmerman appears uneasy in attributing interactivity to these gamebooks (though, a bit later, he even assigns “explicit interactivity” to the genre), and this initial sense of unease is justified: we must remind ourselves that the reader is only one side of the interactive coin – in order to talk about true interactivity, the other side of the communication setup must be felt to *respond* as well. This is what Ryan signals when she maintains that “a genuinely interactive text involves not only choice, but a two-sided effort operating in real time that creates a feedback loop. The two sides can be either two human minds, as in conversation or oral storytelling, or a human and a programmable system that simulates a communicative partner, as in digital texts.” (*Avatars* 239) Indeed, this ‘two-sidedness’ is the very kernel of what it means for any system to be truly interactive: both sides must *act and react* in order to *interact* with each other. *An interactive communication setup is one in which the exchanges between (at least) two entities give the semblance of being mutually responsive*: the essential, but often enough overlooked word here being *mutually*. Regarding texts, this means that not only must the reader be able to react to the text’s narrative setup (by making, for example, choices on how to continue through its structure), but the medium must be experienced to respond to the reader’s reactions in the sense of displaying some kind of (re-)action – for example, the digital screen offering new content as a reaction to the click of a mouse or the touch of a finger. The turning of pages, even if it is ‘unconventional’ in the sense that it does not follow the traditional sequence of page after page – does not elicit such a sense of experienced response, as the book itself remains the same no matter what the reader ‘does’ with it. If we assign interactivity to a CYOA-book which offers its story material non-sequentially by prompting the reader to jump between sections, then to stay logically consistent, we would also have to call conventional reading interactive, since whether the book offers content on page 1, 2, 3 (the reader performing the task of turning pages) and so on or on page 1, 15, 27 (the reader performing the very same task) cannot be taken to matter in any serious sense: the medium is not experienced as responsive in either case, the pages remain in their bound order,

the content has been fixed on the page all along, and only the order in which the material is encountered differs.⁵⁷

Using the term interactivity in this more narrow sense of the word helps to establish an important boundary between ‘responsive’ and ‘static’ mediality, or between the digital and the printed text. Ryan constitutes that “[t]he interactive text is a machine fuelled by the input of the user” (*Virtual Reality* 210), and this machine must itself register a response that goes beyond allowing a simple relocation within the narrative structure. This is why printed FNs can be seen to prompt *activity*, but not true *interactivity* in their communication setup. Such a classification may seem counter-intuitive or even disappointing to those who regard, for instance, CYOA books as something inherently different from other books, but consolation is at hand: these texts *are* different, because they include nodal situations within their structural makeup. They belong to a different class of narratives than most other books – they are future narratives. They generate a degree of activity in the reader that arguably surpasses the activity of reading a ‘conventional’ sequential narrative, because they offer choice and bifurcation, but the responsiveness of the medium is non-existent: the bound book is and remains a static system that is not affected by the input of the reader.⁵⁸ When we move into the realm of electronic fiction, however, interactivity becomes a valid category of analysis, for any electronic interface (the computer, the tablet, the smartphone) reacts to user input by offering new content that was not, until the moment of input, *there* in a material sense comparable to hard-copy materiality (though it ‘existed’, of course, as digital code, but this code is inaccessible to the average user): the medium gives the impression of actively responding to user activity, creating a feedback loop that is the most characteristic trait of true interactivity.⁵⁹

The perceptive reader will have noticed the accumulation of terms such as ‘semblance’, ‘experience’, and ‘impression’ in the preceding paragraphs. This points to a highly important aspect we must realize when talking about interactivity in any medium: interactivity is the realization of a series of *perceived* medial action-and-response exchanges and not, by any means, a structural property of

57 Bode likewise argues in Volume 1 of *Narrating Futures*: “[...] I do not think it is reasonable to say that, after I have turned the page of a real book, the book responds to that action by now offering me a new aspect of itself – indeed, I believe that to say so would be quite perverse: that ‘response’ is not any different from, but absolutely identical with what I just did to the book. I turned a page” (footnote 6, section 1.13).

58 Douglas similarly concedes that “reading print narratives is far from being a literally interactive activity [...]” (42).

59 Ryan has also noted that “interactivity is the property that makes the greatest difference between old and new media [...]” (*Avatars* 99).

a text. A medium can create an interactive experience, but never the text itself, because everything is always set in the architecture, whether this architecture is in the hard copy or in the electronic format: genuine interactivity would therefore only be possible with a truly responsive medium such as an oral communication partner (cf. Douglas 42–43). An artefact's interactivity is *best perceived through use*, and so the distinction between activity and interactivity is largely one of user perception – a medium can create the impression of an interactive experience, and this will certainly influence the degree of immersion and agency felt by the user. Interactivity thus refers to the artefact's interactive behaviour as experienced by a human agent. In a sense, we have come full circle from our initial definition of narrative, which has a similar ring to it: nothing is narrative, but anything can be *read as* narrative. In a similar sense, interactivity is something that can be perceived by an agent during contact with a medium – we must keep in mind, however, that even the most openly 'interactive' medium such as the computer has a source code which is scripted and fixed in much the same way that bound pages are (as Aarseth has already argued in *Cybertext*). Does this concession take away from the force of interactivity as a phenomenon of digital textuality? Not, I would argue, if we regard interactivity as a factor of differentiation between those FNs that allow for reader/player communication with a static text (i.e., print fiction) and those that enable communication with a responsive text (i.e., digital fiction). In this case, the significance of interactivity is more sharply focused as a matter of mutual receptiveness to input, and less a question of reader activity in general. Contrasting 'activity' with 'interactivity' helps to take the possibilities of the medium into account when considering the engagement of reader with text, and it specifically accounts for the two-layered structure of digital text as source code and content (explored in more detail in Chapter 4.5.2), in which the principle of actualization takes on a much higher degree of significance.

3.5 A Word on the Reader or: The Reader as Player

Having discussed the structural organization of FNs as architecture and actualization as well as the issue of interactivity, the focus shall now once more turn to the agent that engages with these narratives and, more specifically, to her way of moving through such texts during a performative realization of the architecture. She has already been classified as a 'hybrid' between reader and player in the introduction of this study, and the fact that FNs potentially trigger a heightened degree of activity when compared to conventional storytelling has been repeatedly posited: these texts may oblige the reader to actively engage herself with the nodal structure and, in some cases, involve an interactive experience, turning her

into a ‘reader/player’. Turner traces the shifting scale of readerly agency, ranging from conventionally retrospective narrative to open, interactive texts, as follows:

The traditional narrative text starts at page one and continues without break or pause, beyond chapter divisions, until reaching a seemingly inevitable conclusion. It is a text in which the reader is, in a way, only along for the ride. The hypothesized open, reader driven text, is one in which the text itself responds to the needs and wants of the reader, creating and recreating itself according to the circumstances. This conceptualized text, the ultimate ‘choose your own adventure’ narrative, would truly turn full power over to the reader. (496)

It should by now be clear that the recipient of a textual FN veers toward the second kind of text Turner describes, namely, the “open, reader driven text” in which the reader is bequeathed the pleasure, but also the responsibility of shaping the text through her participation. Though this study is – due to its interest in establishing a structural poetics of future narratives – devoid of empirical investigations concerning the reading process of FNs, the very term ‘reader/player’ used for the description of an agent within such a textual structure points toward the importance of concretizing her status in this structure. The dual terminology of the reader/player refers back to the fact that all future narratives can, in essence, be regarded as games, and thus the reader of such a narrative takes on, to varying degrees, the role of a player that engages with its structure and rule system. On one end of the spectrum, the ludic activity of the reader (or viewer) is severely limited to witnessing the display of multiple possibilities without being able to choose the order in which she encounters them (such is the case in films like *Run Lola Run* or *Sliding Doors*, and also in sequential multiple-endings tales such as *The French Lieutenant’s Woman*) – on the other end, there are the enormous possibilities for interaction an alternate reality game offers. Whenever nodes are present in a narrative, the reader cannot ‘just’ read, but must learn and accept the rules of the text and apply them in order to create a meaningful narrative experience: she must confront the text with a ludic attitude. While this player aspect clearly dominates in modes of digital storytelling, it is less strongly applicable to printed FNs, where the traditional reading aspect still outweighs a sense of gameplay (though gameplay is, nevertheless, clearly a part of the overall contact with the text). Any implementation of multipath structures, however, works if and only if the recipient chooses to play the game offered by the narrative, a point that Aarseth has also made for his category of cybertexts (which are, as Chapter 2.4 has shown, closely related to FNs):

The cybertext reader [...] is not safe, and therefore, it can be argued, she is not a reader. [...] The tensions at work in a cybertext, while not incompatible with those of narrative desire, are also something more: a struggle not merely for interpretative insight but also for narra-

tive control: 'I want this text to tell my story; the story that could not be without me'. In some cases this is literally true. In other cases, perhaps most, the sense of individual outcome is illusory, but nevertheless the aspect of coercion and manipulation is real. (*Cybertext 4*)

Though we must always, of course, keep in mind that any text, even an ostensibly 'open' one, has been scripted by a creating agent, to act as a player demands a considerably heightened amount of participatory involvement from the reader. This can even be seen in very minimal implementations of the nodal principle – for example, in the case of multiple endings in a printed novel. Here, the reader can choose to stay merely a reader, reading continuously from the first page to the last. Or she can accept the text as a game of choice, and play/read it accordingly. This game could then be played by different rules that the reader makes up for herself; she could, for example, establish the rule to choose one of the endings beforehand and ignore the other, or to read both and then to choose the preferred one. 'Playing' a FN can thus both be guided by rules established by the text itself (as, for example, by the structural chart provided for the reading of Madsen's *Days With Diam*; see Chapter 5.3) and by rules that are established by the player in her direct interaction with a given architecture, which offers, but must not necessarily enforce ludic behaviour.

Readerly engagement with the text is, furthermore, influenced by issues of *desirability* and *feasibility*, which the reader of a FN may take into account in order to optimize her decision process. That is, she may choose the most desirable outcome according to her current status within the storyworld, and this aspect of desirability is arguably influenced by the amount of knowledge she carries into the choice making process. Thus, she may know that it is more desirable to take a certain path through the narrative because this path will yield a more positive result (this applies especially to those nodal structures that allow the motion of re-trying); on the other hand, one option may simply appear more intuitively desirable (for example, a more interesting wording or visualization of a link in hyperfiction, or a continuation in a CYOA-narrative that seems more enticing) if she is provided with little information about the choice she must make. Feasibility, on the other hand, is a question of minimizing efforts to reach a certain goal, and thus "[t]he distinction between desirability and feasibility corresponds to the distinction between means and ends. [...]. That is, desirability refers to the valence of an action's end state, whereas feasibility refers to the ease or difficulty of reaching the end state." (Lieberman and Trope 7) It seems plausible that desirability is, for fictional texts, the more relevant category, as "plot is as such connected to desire, both in the sense that plots are often about desire, and in the sense that desire is central in the plot's production of meaning. The reader has a desire: narrative desire to reach the ending, to finish and consume a work"

(Juul, *Clash*) – and, in the case of FNs, the desire to find the best path through the textual architecture. Fictional texts never encourage an entirely neutral, strategic attitude of ‘solving’ the text in the most efficient way possible, but infuse the reading or playing experience with identificatory mechanisms such as the ‘you’ of Choose-Your-Own-Adventure texts, the avatar in digital gaming, or the generation of empathy for fictional characters and their fate within the storyworld. The reader of a FN can thus hardly remain a disinterested tactical player; her ludic experience will necessarily be influenced by the shape of the storyworld and her position within it.

3.6 The Necessity of Possibility: Do We Have to Play?

While all FNs allow for (indeed, enforce) a structural differentiation between architecture, run, and protocol, the necessity of adhering to the rule system comprised in the architecture varies with regard to the medium into which individual texts are inserted. The absoluteness of the implementation of a text’s rules is, in other words, medium-dependent, and again points to the high relevance which issues of mediality hold for this genre. In print FNs, the distinction between architecture and performance must be drawn in order to assess the text structurally, but the rules enabling possibility do not necessarily have to be followed during any run-through. That is, narrative content may be accessible even without selecting between continuations in choice situations, by reading the book linearly and thus refusing to play the text by the parameters set in the deep structure (though, of course, this will make for an entirely different, sometimes nonsensical, reading experience than following the offered options). Thus, one *could* ostensibly read Madsen’s *Days With Diam* from front to back cover, ignoring its invitation to choose between 32 different outcomes; such a reading is physically possible to the exact same degree that performing one run of the architecture is possible. Likewise, the narrative segments of a CYOA book could be read sequentially, and though any sense of narrative coherence would probably be lost along the way, the reader would still be able to encounter all parts of the story. Some novels, such as Julio Cortázar’s *Hopscotch*, even directly put forward an alternative to actualizing different versions of the architecture; before beginning the narrative proper, the novel instructs its readers that it can either “be read in a normal fashion”, in which case “it ends with Chapter 56, at the close of which there are three garish little stars which stand for the words ‘The End,’” and where “the reader may ignore what follows with a clean conscience”, or alternatively, that it “should be read by beginning with Chapter 73 and then following the sequence indicated at the end of each chapter.” (n.p.) Cortázar or, more pre-

cisely, the novel's game master, signals the possibility of multi-linearity the text's architecture offers without rendering its implementation definitive.⁶⁰ Providing the reader with the option of renouncing the text's offered multi-linearity testifies to the ostensible artificiality of such a structural arrangement within the printed novel; the implementation of different runs is dependent on the reader's willingness to sacrifice her habitual turning of pages to the flipping between individual sections – a process that can, at times, seem rather tedious to those reading for 'the story'.⁶¹ The printed text, in short, has no possibility of absolutely enforcing its rules; it must always rely on the recipient's compliance to play along.

Digital texts, on the other hand, *necessitate* individual performances by the reader/player in order to bring the narrative into existence at all.⁶² The functionalization of nodes as their central structural device causes the progression-by-choice mechanism to constitute the very heart of the text; here, the decision to forego the text's invitation to 'play' results in the termination of the reading process (or, perhaps even in an abandoned beginning). Thus, the rules of the text must necessarily be followed in electronic narratives – even if the reader only engages with them at the minimum level of interactivity by always selecting the 'default' link (i.e., the link activated by merely clicking anywhere on the screen or hitting enter), she has already undertaken one run of the text which results from its specific architecture. Of course, this selection of the default link could be compared to the motion of turning pages in a print text; in this sense, a reader who decides to perform only this action to encounter the narrative has not taken up the text's offer for play in all its complexity. Still, the possibility of activating

60 Of course, it could be argued that reading *Hopscotch* in a 'normal', that is, sequential, fashion is a part of the script's rule system, and we could consider this novel as containing a script that allows both uni- and multi-linearity; however, including the option to read the narrative in a traditional sense self-referentially gestures toward the enablement of multipath possibility through rules of the script in the first place, and thus establishes a clear border between conventional reading strategies and multi-linear gameplay. If the reader chooses the conventional strategy, she has, in a very literal sense, chosen not to 'play' the game, and instead adheres to the more familiar mechanism of reading the novel straight from beginning to end.

61 In this sense, Angileri is incorrect in claiming that print Choose-Your-Own-Adventure books are texts "in which the reader's response is most certainly not optional; indeed, if the reader were not to respond there would be no book." (67) The book, of course, exists no matter whether the reader takes up the invitation to play – she merely actualizes different story possibilities through her engagement with it.

62 Also see Aarseth on this matter, who, regarding the difference between print and hypertext, posits that "if codex text [that is, printed text] allows two basic ways [of reading] – homolinear reading (with the line) and heterolinear reading (tmesis) – the hypertext structure of nodes and links allows only one: hyperlinear reading, the improvised selection of paths across a network structure" (*Cybertext* 79).

the default link is part of the text's rule system, which includes other possibilities for continuation (i.e., selecting links) and so even the indiscriminately clicking reader has still quietly accepted the basic regulations of the text: choose the default setting *or* decide on individual links. While, as I have argued earlier, the whole of the architecture of a printed FN is physically accessible at any point of the reading process, we can only have access to the fragment of the text we are reading at this very moment in the case of digital narration – the rest of the work is hidden away 'beyond' the links, as a structure that is not physically tangible and may remain partially unseen even after one individual run. Indeed, this is one of the primary ways in which both longing and frustration are evoked in readers; very early on in hypertext history, Robert Coover has characterized this narrative format as one of perpetual expectation: "As one moves through a hypertext, making one's choices, one has the sensation that just below the surface of the text there is an almost inexhaustible reservoir of half-hidden story material waiting to be explored." (1) Thus, there exists a more direct connection between textuality and the necessity of rule-following in digital narratives because the narrative content is only available whenever the reader follows the rules of the text.

3.7 A Typology of Textual Nodal Situations

Possible forms of nodal situations in textual FNs range from fairly traditional bifurcating mechanisms, such as footnoting, to complex collaborative player decision situations in ARGs. Recalling the definition of the nodal situation as *any situation that allows for more than one continuation* through the textual structure, it should become apparent that this rather wide-ranging classification results in an equally broad and diverse range of nodal situations within the corpus of this study. The expansiveness of the term's scope, which covers highly different ways of implementing multiple options in a text, points toward the complexity and medium-sensitivity of the very concept, as the functionalization of nodes within the different media largely depends on the possibilities which these media afford in terms of structural design. However, the abstractive reduction of any narrative to an architectural script enabling more than one performative realization of narrative content will always be possible as long as there is at least one nodal situation present; in this sense, the variety of nodal situations can be condensed into a central principle of structural multiplicity.

In *print FNs*, nodal situations are predominantly implemented verbally, though they can also include graphical, non-verbal representations (as, for example, the diagram chart or 'table of contents' in *Days With Diam*). The offering of bifurcation can be realized by way of footnoting, directive language com-

mands ('If you want *x* to happen, do *y*') or commands issued non-verbally (for example, by listing different chapter numbers with which a story can be continued), physical-material text states (such as unbound novels, contrasting text blocks within one page, cut-up), or the presentation of mutually exclusive narratives (multiple endings or labyrinthine novels, for example).⁶³ What is important to note here is that all of these directives can be characterized as being *additions* to the 'actual' narrative presented on the printed page; the offering of choice and multiplicity is never seamlessly integrated into the text, but exposes itself as part of the text's rule system, as an open call for re-orientation of the reader within the textual structure. Since nodes are neither intrinsic to print literature nor in any way necessitated by the medium, they must be created deliberately and artificially – in the sense of appearing as appendages to the story or the even more radical technique of material dissipation – in order to open up spaces of possibility within the rigid arrangement of bound pages.

In *digiture*, the nodal situations offered are implemented through hypertext links, blinking cursors (as in interactive fiction, where the cursor signals the requirement of user input), or other instructions for responding to the digital system (hitting 'enter' to access the next bit of text, for example). Here, the nodal situation arises from the very fact that the reader/player must become active to access the next segment of text, and is thus *inscribed into* the narrative instead of being an artificial additive to it. Nodal situations in electronic texts can be conveyed verbally – words which function as links, for example –, visually (the bodies in Shelley Jackson's *My Body: A Wunderkammer* or Stuart Moulthrop's *Pax*), or by semiotic digital signs (e.g., flashing cursors). In all cases, the text offers a potentially large but necessarily finite number of possible continuations, the nodal situation being realized as a logical effect of digital multipath dynamics. Hayles observes that "unlike print, digital texts cannot escape fragmentation, which is deeper, more pervasive, and more extreme than with the alphanumeric characters of print" ("Flickering"), and it is exactly this inevitability of textual

63 An important classificatory constraint regarding such modes of nodal situations is that any narrative bifurcation must necessarily belong to the fictional universe of the text in order to be counted as a continuation of a node – only those bifurcations which serve as extensions of or additions to the storyworld are of interest here. For instance, footnotes in the conventional sense, taking the reader outside of the textual world and into the sphere of critical commentary, do not belong to the category of nodal situations evaluated in this study. This is due to the fact that a bifurcation, to be relevant for future narration, must explore two possible continuations resulting from the *same* situation, the consequentiality of a given choice. In order to assess this consequentiality, the reader must be able to compare version *a* to version *b* (and, potentially, version *c* and so on) to make a meaningful judgment on how his choice (or the text's choice, if it is a non-interactive FN) has influenced the textual universe.

division which dictates the integration of nodal situations into (almost) every story within the realm of the electronic.

In *performative* modes of textuality, the concrete identification of nodal situations becomes more difficult, as there is often no specifically designated ‘point’ or even ‘situation’ at which bifurcation is possible; rather, *any* situation (in pen-and-paper role-play or alternate reality gaming, for instance) is open to player input and feedback, and thus potentially enables an infinite number of continuations. That is, every utterance or action of an individual player can serve as a node for taking the story into a different direction; since complex FNs such as the alternate reality game feature an interactive, bidirectional feedback mechanism between storygame and a high number of geographically dispersed participants, the nodal situation turns into a general potential for openness and emergent player behaviour. The analogy to real-life situations is not far-fetched: here, too, (almost) anything is possible in any given moment, and pinpointing individual nodal situations would be equally difficult.

3.8 Transitions Between Nodal Situations

Having identified the principal ways of implementing nodal situations within the different media of textual FNs, it is now necessary to regard their effects on reader (re)positioning within the textual structure. The presentation of multiple options can trigger highly different modes of ‘movement’ through the narrative; every nodal situation will inevitably necessitate a re-shifting from ‘here’ (the situation of choice) to ‘there’ (the result of this choice) in the story. Unlike in video games, where this transition is ‘naturally’ conveyed by an avatar’s advance through a visually conceived storyworld, textual FNs must always cope with some sense of disruptiveness when engendering multiple continuations. Whether the transition from one part of the text to another occurs within the layout of one single page, through the flipping of pages or, in the case of hypertext, by clicking to another screen, it is always clearly felt by the reader/player, who must reposition herself not only in the storyworld, but also within the narrative topology.

3.8.1 Internal Page Transitions

The most spatially restricted form of a nodal situation in textual FNs consists of bifurcations which keep the reader on the same page after having made a decision on how to continue. These include footnoting, the presentation of different outcomes on a single page (as in B.S. Johnson’s short story “Broad Thoughts

From a Home”), or the arrangement of different textual blocks between which the reader can freely choose (in *House of Leaves*, for example). Such nodal transitions can be compared to the use of ‘split screens’ in film and other forms of moving pictures, where the viewer can select between different visual content within one limited frame (i.e., the television or movie screen); the transfer from one content element to the next is easily achieved and indeed invited through the presentation of different images or, in the case of FNs, texts on a single page. This form of transition from one continuation to the text thus generates a back-and-forth movement within a highly confined space.

Positioning the offered continuations on the same page as the node itself invites an immediate and direct comparison of all options, at the same time minimizing disruption by page turning or screen-transitions. How such an accumulation of possibilities can be functionalized to a highly ironic effect is demonstrated in B.S. Johnson’s short story “Broad Thoughts From a Home” mentioned above, whose last page displays all potential conclusions to the story at the same time, indicating both the richness of possibilities and the arbitrariness of choosing between them:

Magnanimous gesture: the reader is offered a choice of endings to the piece.

Group One: The Religious. (a) The quickest conversion since St. Paul precipitates Samuel into the joint bosoms of Miss Deane and Mother Church. (b) A more thorough conversion throws Samuel to the Jesuits. (c) A personally delivered thunderbolt reduces Samuel to a small but constituent quantity of impure chemicals.

Group Two: The Mundane. (a) Samuel rapes Miss Deane in a state of unwonted elation. (b) Miss Deane rapes Samuel in a state of unwonted absentmindedness. (c) Robert rapes both of them in a state of unwonted aplomb (whatever that may mean).

Group Three: The Impossible. The next post contains an urgent recall to England for (a) Samuel (b) Robert (c) both; on account of (i) death (ii) birth (iii) love (iv) work.

Group Four: The Variable. The reader is invited to write his own ending in the space provided below. If this space is insufficient, the fly-leaf may be found a suitable place for any continuation. Thank you. (75)

The thirteen different endings plus the ‘variable’ ending, which calls on the reader herself to create a possible conclusion, stand as a plethora of potentiality which offers itself all at once, and thereby places more emphasis on the sheer *number* of continuations than on their actual differentiation from each other – death, birth, love, elation, and absentmindedness are seemingly interchangeable, and randomness trumps consequentiality. The outwardly ironic tone of the

“magnanimous gesture” ridicules the very idea of possibility, which is, in fact, nothing more than a display of arbitrariness and indifference to readerly choice. Dannenberg has noted the “concentrated excess of plot options” in the ending of Johnson’s story, which leave “no room for the development of varying character versions within the different alternatives” (“Ontological” 181); this reductive concentration is also reflected graphically, in the crowding of all possible options on one page. All of the story’s ‘future’ is right there, simultaneously accessible, and there is no degree of transcendence into the ‘beyond’ or ‘unknown’ with a certain choice (as generated, for instance, by hypertext linking). The presence of decision results on one single page is thus generated by a nodal situation which does not utilize the potential of transition to the utmost degree; the limiting spatiality of the frame which contains both the node and its consequences often fails to evoke a sense of having really effected a change.

3.8.2 Page-to-Page Transitions

Both in the classical CYOA format and in other forms of forking-path narratives, as well as in axial nodal structures such as Jacques Roubaud’s *The Great Fire of London* (analyzed in more detail in Chapter 5.4), the reader must flip pages to access the continuations of a given node. This is the classical mechanism inherent in most print FNs, and one that necessarily generates a tangible interruption within the reading process. Page-to-page transitions take the reader away from the location of the node and lead her to a new position in the text; she will have to literally leave the nodal situation ‘behind’ in order to resurface at a different site within the book. The shift from ‘here’ to ‘there’ *must*, in this case, be physical, as “in print technology the referenced (or linked) materials lie spatially distant from the references to them” (Landow, *Hypertext* 5) – this is not only the case in Landow’s example of actual reference works, which point the reader to other texts located elsewhere, but also in print FNs, where conventional page-turning is replaced by jumping from one section to another. Unlike in digital textuality, where the shift between nodal situations can be achieved much more fluidly, printed texts cannot easily integrate nodes into the narrative experience, the transition being a decidedly material one. There is thus always a high degree of self-consciousness involved in presenting such nodes in print fiction, where the effect of the reader’s choice is not just seen, but experienced as a concrete navigational act. Usually, there is also an instruction as to where the continuations can be found, which makes for a directed, guided transition; the narrative presents itself as a game-structure within which the reader must move according to pre-defined rules.

3.8.3 Shuffling

A transitional form related to the page-to-page transition is the section-to-section transition experienced in unbound FNs such as B.S. Johnson's *The Unfortunates*, Marc Saporta's *Composition No.1*, or other forms of combinatorial literature such as Raymond Queneau's sonnet machine *Cent mille milliards de poèmes*. This motion can be designated as 'shuffling', with reference to the combinatorial process of reordering a set of cards. In this case, readerly activity changes from leaps within one bound structure to the rearranging of individual sections. Shuffling generates a highly different reading experience than the switching between pages (though both forms rely on a process of material engagement with the printed medium), as it allows movement within the narrative structure that is largely free; the path of the reader is usually neither pre-determined nor guided into a specific direction by game master instructions.⁶⁴ The shuffling activity tolerates, indeed encourages, an openly playful engagement with the text, whose bifurcations are not inserted at specific points in the narrative, but emerge as invitations to the reader within the overall unbound structure. Here, the term *nodal situation* once more demonstrates its appropriateness, as the narrative's material status itself is the situation generating the choice mechanism. The nodes are not marked verbally, but surface materially, as an incitement to play the text at will, creating combinatorial narrative which no longer follows any teleological configuration. At the same time, exactly this lack of teleology may surface as the central problematical issue of 'reading' with the use of such a shuffling mechanism, as "[t]here is nothing as disconcerting as the sensation of holding a loose sheaf of papers, with no numbers, no chapters" (Uglow), the reader having to play without any but the most basic set of rules – shuffle as you like.⁶⁵ Combinatorial text is characterized by "an extraordinary mobility;" it is, as Motte has remarked with respect to *Cent mille milliards*, "constantly moving and impossible to grasp." (723) The transient state of narrative in such forms of literature is thus reflected both in its incessant fluidity and in the mobile activity of shuffling to generate story content, an activity during which the physical division of narrative is literally felt by the reader's own hands.

⁶⁴ An exception is *The Unfortunates*, in which the beginning and ending sections of the text are clearly designated. In Saporta's *Composition No.1*, the reader is "requested to shuffle [the] pages like a deck of cards" (qtd. in Grimm 281), though no mention is made of the desired order or outcome of this motion.

⁶⁵ Similarly, Grimm remarks on the awkwardness of handling Saporta's loose-leaf novel: "The loosely stacked packet is quite unmanageable and can be shuffled only with considerable effort, even by a skilled card player" (282).

3.8.4 Link-to-Link Transitions

Turning to digital narratives, the dominant mode of transition between nodes is the movement from link to link. This transition is somewhat less awkward than a page-to-page transition in print fiction, as it usually consists of a mere click to reach the new screen: “In an electronic environment the reader does not go to the text, the text comes to the screen. [...] With a print text the reader needs to perform a ‘go to’ – targeting a page in a book, a shelf in a library, a store in town – to obtain new materials, but in electronic texts all the reader needs to do is to click on a link.” (Ryan, *Virtual Reality* 214) The materiality of the medium thus distinctively influences both the amount of effort invested to reach a new section of text after having activated a node, and the degree of disruption experienced as a result of this effort. In the case of digital narrative, both of these factors are comparatively low, as the near to immediate accessibility of new narrative content can be achieved without any ‘material’ engagement with the text (other than the rather detached act of clicking a mouse or touching a screen). In this way, transitions between nodal situations in the digital realm are much more abstract (the reader does not have to take a book or individual sections of it into her hands and flip through them in order to arrive at the continuation she has selected), they entail a more uninvolved shift from ‘here’ to ‘there’. The space ‘between’ two narrative sections is not perceived physically, but remains a theoretical entity that is bridged almost immediately, reducing the temporal span from one situation to the next to an absolute minimum. Digital literature privileges ‘now’ over ‘later’, and this shows in the diminution of spatial and temporal distance between individual text chunks. Simanowski has described the hypertextual link as “the literal presence of the other within the self: an ‘internal transition’” (*Interfictions* 73; translation F.M.), and it is this notion of interiority that constitutes the central structural metaphor of digital text.

3.8.5 Dynamic Input

In the case of more openly performative modes of narration, such as alternate reality gaming, both nodal situations and the choice mechanisms they generate are much more complex than in ‘traditional’ modes of narration, be it in printed or in electronic form. Here, encountering a node does not simply entail the transfer from one section of text to the next, but encompasses a whole range of potential actions, such as posting text online, visiting websites, or even real-life rallying with other players. Especially in collaborative mechanisms such as the ARG, nodes are less clearly localizable as one determinate situation, and emerge as

a general dynamic potentiality of group decision-making. Retrospectively realized nodes are likely in this context, since the rules of the game are not overtly displayed before its start, but only surface during the playing process. Since performativity always entails a certain degree of spontaneity and emergent behaviour, this lack of clearly pre-defined nodes is feasible; the experience of nodal situations is thus closer to sandbox video games, which are created to encourage undetermined, 'free' player behaviour within the game structure and "transfor[m] predetermined narrative into dynamic, responsive narrative." (Breslin) Nodal transitions can thus best be characterized as 'dynamic input' in the case of collaborative storytelling, this input potentially effecting a change in the narrative system as a whole.

3.9 The Visibility of Nodes: Indication

The degree to which a nodal situation draws attention to itself differs considerably within the corpus of this study. This degree of nodal *indication* carries implications both for the mechanism of choice involved and for the overall mode of reading generated by the nodal arrangement. Distinguishing between *overt* and *covert* nodes, that is, between nodes which are *visible as such* and those that *hide their status* as situations offering a bifurcation, a clear association between the former and printed text, and between the latter and electronic texts, can be drawn. That is, nodal situations are (indeed, *must* be) clearly marked in print text, while they may be hidden in hypertext. This can once more be attributed to the fundamental difference in materiality of these media: the restrictive physicality of print narratives effectuates the necessity of node-recognizability on the part of the player, as such mechanisms generating multiple continuations are an aberration from the norm, while digital texts are intrinsically plural in structure and thus do not have to make their continuations as visibly obvious. Coming to the end of a chapter in a Choose-Your-Own-Adventure book without ever having encountered the genre before (and without having any prior theoretical knowledge of its structural workings), the reader is bound to perform her usual navigational strategy and turn to the next page – without an explicit marking of the node, in other words, the potentiality of the situation would be lost to her. The *prompt* of verbally denoting the bifurcation thus enables the reader to recognize the potentiality of choice, which constitutes a deviation from conventional narrative experience, and which she must actively acknowledge in order to play the text meaningfully. The printed text is required to lay bare the mechanism of its continuation-by-choice operation by presenting the reader with a manual, since she does not know how to play such a multi-linear text without instructions (and,

in extreme cases of structural openness like Saporta's *Composition No. 1*, may experience difficulty in coping with the text even when provided with a basic guideline, because the incentive to shuffle the pages at will entails a degree of randomness not easily accepted in the reading experience). This manual can consist of authorial instructions placed before the beginning of the actual text (as in *The Unfortunates*), or at the end of each story section (in CYOA, for instance), or of a graphical representation of the text's structure. In either method, the self-consciousness of the medium is recognizable in its flaunting of its own system of configuration; this is why, in print fiction, a retrospectively realized node – i.e., a node that is only recognized to have enabled a choice *after* it has been traversed – is an utter impossibility. Belated recognition of potentiality is only possible when this potentiality is able to hide itself within the textual structure. In print FNs, we (must) know a choice situation when we see one.

In digiture, the necessity of nodal indication is no longer pressing, and as a result, both overt and covert nodes are employed for the generation of choice mechanisms. Because electronic texts, as has repeatedly been posited in this study, *depend on* a continuation-by-choice mechanism, they can more subtly functionalize visual clues about nodes and potentially withhold indication from the reader. Links may be marked visually as nodal situations by underlining, different colouring (most often blue), or other graphical differences to the 'inactive' rest of the text (e.g., typeface, use of images, or different font sizes). Conversely, however, they may also be visually identical to the rest of the text, in which case the reader must slide the cursor over each word in order to identify the link (where the cursor will turn, for example, into a hand symbol, indicating linking possibility), or she will have to randomly click on words to see if any of them are 'words that yield' in Michael Joyce's sense.⁶⁶ This difference in link visibility significantly influences the reading process and sense of orientation within the hypertextual narrative, as texts whose links are visually concealed trigger more arbitrary decisions and choices than can be achieved in those with visible continuation possibilities. A text using covert links may trigger "an uninvolved, or at least unfeeling, practice of randomly clicking about the nodes to see where they take you." (Keep, McLaughlin, and Parmar) In fact, the total lack of link visibility may cause the reader to abandon the reading process altogether; an empirical study by Pope provides substantial evidence for this assumption:

⁶⁶ In Joyce's paradigmatic hyperfiction *afternoon: a story*, "[t]here are no visible links [...], and the user may click on any word in the scriptons to see if they yield (link to) something special. If they do not, or the user presses the return key, the next default scripton in the present chain occupies the screen" (Aarseth, "Nonlinearity" 771).

Where links were not clearly indicated, readers not only reacted as they might in an information-space, i.e. with confusion and frustration, but they also were likely to give up their reading because the narrative failed to develop. In an information-seeking activity, a reader will look for alternative links until the desired information has been found – the desire to find out is the driver; but in the reading of hypertext fiction, the motivation to keep reading has to be generated by what each link delivers when it is followed. The desired ‘information’ is the unfolding narrative and if that does not emerge as each link is chosen, then the desire to ‘find out’ is killed off.

The obfuscation of nodes thus prevents any attempt at teleologically motivated movement through the text, which will, in turn, significantly hinder the development of a sense of readerly agency. Any link is, as has been posited earlier, the presence of the other within the now, and the accessibility of this ‘otherness’ depends on the reader’s ability (and, indeed, willingness) to reach beyond what is shown to what is hidden within the text’s nodal deep structure. The reader’s desire to activate links, and her almost automatized response to marked links (due to the extremely high prevalence of linked material in any digitally presented material), is parodied by John Barth in his mock-hyperfiction *Click*, in which individual words pose as links (being blue and underlined, thus featuring the ‘classical’ link visuality), but are in reality inactive, as clicking on them generates no textual response or transfer onto another screen. This generates a particular sense of frustration, as the mock-links often suggest a referential function which purportedly offers additional information (through the word “more”, or the phrase “on with story”, for example), information which is, however, not accessible. Such play on the indication of links as nodes emphasizes the expectation which is generated in the reader by visual marking; because indication is still the norm in electronic textuality (though, as described above, it no longer holds the status of absolute necessity), it will automatically prompt the desire for continuation, which, when withdrawn, acts as a self-referential commentary on exactly this desire.

3.10 How to Choose? Information

While the marking or indicating of individual nodes already effects highly diverse reading experiences, the degree of *information* provided about the consequence of a given choice pertains even more directly to the overall semantic effect of a FN. While some narrative forms included in this study’s corpus explicitly *rely* on the reader making informed decisions, other texts offer incomplete or no information regarding the outcome of the choices offered. The choices made with such varying information range from strongly calculated, carefully considered deci-

sions to random actions based on luck, and the degree of experienced agency varies accordingly.

Information about choice making is an essential component of all texts belonging to the CYOA genre. In every nodal situation of such texts, the consequence of a reader decision is made available and explicit at the point of choosing – usually in the form of a conditional if-clause (‘If you want *x* to happen, go to page *y*’). The reader thus knows exactly what to expect when making her decision and can choose the outcome that is, to her, most desirable at this point in the story. This decision result presented ahead of time is, however, only the *immediate* consequence of a choice – the larger implications of the choice remain hidden to the reader until a later point in the narrative. This is primarily due to the generation of suspense; to be interesting, the choices presented in a CYOA-narrative have to be half-informed, providing the direct consequences while withholding more gradual effects. This ‘middle ground’ marks the tension field between arbitrariness and complete knowledge within which Choose-Your-Own-Adventure stories operate: without *any* information (i.e., the book simply telling the reader to ‘go to page *x* or *y*’), the arbitrariness of the choice would fail to involve the reader; if the information, however, were complete (‘If you want to win, go to page *x*, if you want to lose, go to page *y*’), the choice would cease to be interesting, since suspense generation would be completely undermined. Like most games, the CYOA book must both offer information and withdraw it; it must make its choices informed enough to engage the reader, and obscure them enough to uphold a certain level of suspense.

CYOA books are, moreover, the primary instance of enabling *moral choice* in nodal situations within the corpus of textual FNs.⁶⁷ Regarding the informedness of decision-making, this seems plausible, as moral choices necessarily presuppose some degree of information about their consequences: if a reader or player does not know what her choice will effectuate, she cannot choose with what she perceives to be the correct moral attitude. Evaluating a given decision within an ethical framework is possible only if the decision’s effects on the storyworld are foreseeable at least within the intermediate-term time span; only then, the reader/player is able to perceive the moral implications of how and what she has decided upon. As Øhrstrøm summarizes, “[t]he analysis of the future consequences of our present actions is very important in ethical theory” due to the fact that “[f]or the ethical evaluation of the possible acts we would in many cases like to know the future consequences of these acts.” (239) Though he further concedes that “we cannot have any absolute certain knowledge about such consequences” (*ibid.*),

⁶⁷ For an example of such moral choice in CYOA, see the reading of *Into the Hollow Earth* in Chapter 5.2.2 of this study.

this incompleteness of knowledge does not prevent informed choices from potentially being ethically relevant; indeed, the half-informed nature of CYOA decision situations described above testifies to exactly this sense of partial uncertainty, which creates tension and makes the reader wonder whether her choice was *truly* correct in the long run. A recent example of such ethical choice making in the gamebook format is Heather McElhatton's chick lit Choose-Your-Own-Adventure *A Million Little Mistakes* (2010), in which the very premise of the story – “You win twenty-two million dollars in the [...] lottery” (1) – engenders moral dilemmas *en masse*: the reader must decide what she wants to do with this money, whether she wants to spend it on herself or help others (most notably, her extended family high in debt); whether she wants to keep her job and save her winnings or spend it all on outrageously expensive trips; whether she would rather stay in the relationship with her long-time boyfriend or use the newfound riches to look for new love. Though the choices in McElhatton's gamebook for grownups are often rather ludicrously extreme and take the protagonist to equally extreme fates (in one ending, she ends up in a homeless shelter without a penny; in the next, she lives happily ever after; in a third, she turns into a ruthless killer; and, of course, she dies plenty of times), *A Million Little Mistakes* demonstrates the tempting morality with which binary choice mechanisms are endowed. The ‘either-or’ dichotomy seems to lend itself particularly well to choice situations with a strong ethical dimension. Some CYOAs even self-referentially comment upon the morality of the *reader/player* to play the text ‘correctly’ – that is, adhering to its rules and not cheating – by including the possibility of rule-breaking. An example of this is *Inside UFO 54–40*, which challenges the reader to find the planet ‘Ultima’. In order to achieve this, the player must figure out a way to leave the spacecraft on which she is held captive; the trick of the book is that the spacecraft can only be escaped by *breaking the rules of the text*, opting against following the branching structure of the story and flipping through the book at random in order to find the way out: “the Ultima ending [...] is completely disconnected from the rest of the story. It exists as an island, unreachable through choices but discoverable thanks to the random access nature of the book.” (Swinehart) This kind of ‘cheat’ is rare in printed Choose-Your-Own-Adventure texts, but it testifies to the fact that ethical choice making is not wholly reserved to the medially more complex field of computer gaming.

By and large, the Choose-Your-Own-Adventure-genre stands alone within the corpus of printed FNs in offering information about consequences. Most multipath texts are precisely *not* based on informed decision-making, but rather rely on the moment of suspense as to ‘what will happen next’, thus mirroring the openness of the future, the ‘not-yet’ within their decision situations. When the reader of O. Henry's short story “Roads of Destiny”, for example, encounters the

central node of the text presenting her with three different continuations, she is as unaware of what to expect as is the protagonist of the short story, standing at the literal fork in the road. Likewise, Maden's bifurcating novel *Days With Diam* assigns random letters to its individual continuations, which do not tell the reader/player anything about the consequences of her decision – 'SA' versus 'ST' yields no information on the outcome of the respective choice made. As such, withholding information about consequences generates a much more direct reference to futurity, to the unknowability of what is still to come. The reader must step into the future of the text blindly, unravelling the effects of her decisions only after she has made them; this, at the same time, means that she will not be able to make conscious decisions on how to shape the storyworld through her agency. Choice without information is necessarily characterized by some degree of randomness and haphazardness; while, in the above examples, there might still be minimal traces of conscious decision making possible – the reader of "Roads of Destiny", for example, may associate different degrees of desirability to the topological entities of 'left', 'middle', and 'right' – texts which employ purely playful shuffling mechanisms have erased the factor of information completely from the decision-making that generates narrative content. Such FNs, then, are more about *enabling choice as such* than about making choice meaningful for the storyworld; as soon as decisions are no longer informed, the nodal situation self-referentially points toward the multiplicity of options presented, without differentiating between these options in terms of preferability.

Digiture, likewise, frequently withholds information, every click to reach the next screen also being "a leap into uncertainty" (Chaouli 612). Information, when provided at all, is often only implicit, as in, for example, Shelley Jackson's hyperfictions *Patchwork Girl* and *My Body: A Wunderkammer*, where links are constituted of body parts, suggesting that by activating these visual markers, the reader will be able to access more information on these body parts. In the majority of hyperfictions, however, the focus is clearly on keeping the reader in the dark when making a selection for continuation, assigning these narratives an exploratory rather than a teleologically guided process of reading: "When the user takes action deliberately but cannot foresee the consequence of his actions, the purpose of interactivity is to keep the textual machine running [...]. Such is the random clicking of many hypertexts." (Ryan, *Virtual Reality* 205)⁶⁸ The same

⁶⁸ A notable exception is constituted by the digital version of Raymond Queneau's *A Story As You Like It*, which presents two options and their immediate consequences to the reader on every page. However, since the hypertext *A Story as You Like It* is based on Queneau's print original *Un conte a votre façon*, which is crafted in typical Choose-Your-Own-Adventure manner, it is not surprising that information about decision-making is provided here.

applies to the genre of interactive fiction, where the reader is forced to ‘try out’ different strategies for solving the puzzles presented; here, too, information about consequence is denied, the blinking cursor demanding input without offering clues as to its results.

The degree of perceived *agency* is directly related to the different degrees of information provided at the moment of choice. Identifying a decision as significant for the development of the storyworld is possible if and only if the decision has been informed to some extent; completely random choices will fail to generate a feeling of agency. Meaningfully interacting with a FN thus presupposes the ability to make meaningful decisions, as “[a]gency, [...] involves intentionality: it is not just a matter of expecting or predicting future events, but also of intervening proactively in order to bring them about.” (Schott 139) That is, the reader must be able to feel that she has made a difference with her choice, that she has ‘intervened’ in the storyworld to a degree that her actions have changed or at least influenced this world. Such an intervention is not feasible in arbitrary or intuitive choice making; due to the fact that a large part of the decisions in text-based FNs rely on exactly this arbitrariness, agency only proves to be a relevant factor in a decidedly small fraction of the corpus evaluated in the present study. It is restricted to the experience of making meaningful choices in Choose-Your-Own-Adventure narratives or interactive fiction – i.e., the more openly game-like forms of textual future narration, game-like in the sense that they have a clear goal – and, in a slightly different sense, to the experience of communally solving the puzzles presented in an alternate reality or forecasting game. This limitation of agency to teleologically conceived FNs has already been pointed out in Chapter 2.5; the argument has here been strengthened by factoring the aspect of information into the equation, an aspect which determines not only the immediate experience of a choice situation as directed or random, but also the more general possibility of experiencing a satisfying sense of having ‘chosen correctly’.

3.11 Narrative Negotiation of Possibility: Mediation

Having considered both the indication of nodes and the degree of information provided about choice consequence, it remains to be evaluated how strongly decision situations can be narratively mediated in textual FNs. This aspect of narrative mediation is highly relevant with regard to the experience of navigational possibility by the reader/player in nodal situations. Mediation differs from indication by being a narrative concept; while indication refers to the overall visibility of nodes within a text (and this visibility can be achieved verbally and non-verbally, as we have seen), mediation is dependent on the degree to which

these nodes are *presented narratively*. From openly authorial positions such as that of the ‘game-master’ figure in Choose-Your-Own-Adventure stories to the utter imperceptibility of a narratively negotiated interface between narrator and reader/player in many hypertexts, the spectrum of mediation is highly diverse in the corpus of textual FNs.

Print FNs often feature a quite prominently perceptible narrational agent who introduces, explains, and orders the unusual task of choosing between options at nodes for the – ostensibly surprised – reader. This function could be termed the ‘game master’ or ‘referee’, who outlines the rules of the playable text. Cortázar’s *Hopscotch*, for example, provides the reader with a “Table of Instructions” at its beginning; these instructions reveal the fact that “this book consists of many books, but two books above all”, before putting forward more concrete instructions on these two specific modes of navigating through the text. Let me quote Cortázar once more to illustrate my point:

The first can be read in a normal fashion and it ends with Chapter 56, at the close of which there are three garish little stars which stand for the words ‘The End’. Consequently, the reader may ignore what follows with a clean conscience.

The second should be read by beginning with Chapter 73 and then following the sequence indicated at the end of each chapter [...]. (n.p.)

The nodal configuration of Cortázar’s novel is thus presented within a narrative frame by an instance of mediation; it is, indeed, a narrative in and of itself. The mediating agent is positioned on the level of the rule system, one level ‘above’ the actual narrative (which itself features a first-person narrator), and thus serves as an external moderator on the textual structure to whom the reader is inclined to lend a heightened degree of credibility. Similar authorial instructions are provided at the beginning of Pavic’s *Dictionary of the Khazars*:

The three books of this dictionary [...] can be read in any order the reader desires; he may start with the book that falls open as he picks up the dictionary [...] *The Khazar Dictionary* can also be read diagonally, to get a cross-section of all three registers – the Islamic, the Christian, and the Hebrew [...] He may move through the book as through a forest from one marker to the next [...] He can rearrange it in an infinite number of ways, like a Rubik cube [...] Each reader will put together the book for himself, as in a game of dominoes or cards, and as with a mirror, he will get out of his dictionary as much as he puts into it. (12–13)

The invitation to do away with chronology and linearity, to accept the novel’s enticement to *play*, is hence presented by an extradiegetic narrative agent in both cases, establishing a hierarchy between text and game master and thereby guiding and channelling the reader’s playful engagement with the narrative. The

analogy between narrative and game is thus openly pronounced on the formal level of these novels; much like other types of games, they include a narrative ‘instruction manual’ in their architecture (though, of course, in Pavic’s case, the instructions are not clearly determined, but merely express the book’s invitation to ultimate reading freedom). Once ‘inside’ these games, however, the mediating narrational instance will all but completely disappear, leaving the stage to the intradiegetic narrators of the novels, which, in the majority of cases, involve a first-person voice (though Pavic’s novel adopts a third-person narrating instance in order to simulate the impersonal dictum of encyclopaedic composition). This, of course, ultimately changes the relationship between reader and text, as we are now ‘following’ a subject on his journey through the nodal structure; in order to (re)gain orientation within the textual game structure, we must deliberately *step outside* of the text to access the level of mediation (in *Days With Diam*, for example, this involves a constant flipping back and forth between the text and the tree graph at its beginning in order to find the next possibilities for continuation). These texts thus continually remind us of their status as games by forcing us to traverse back and forth between their rule system and narrative content.

CYOA-stories, on the other hand, employ a very different form of mediation concerning their ludic mode. Here, the instructions for play are inserted directly *into* the narrative, in the form of directives on how to proceed at the end of each chapter. While these, too, are utterances by a game master of sorts, they come in the form of an imperative address to the ‘you’ of the text; that is, to the reader herself. This generates a much stronger sense of communicative immediacy between game master and player, as the reader finds herself directly instructed by the commanding voice – who can, at times, be openly condescending towards mistakes or failures of the player, arguably increasing the pressure felt by the latter to make the ‘correct’ choice. The mediation *within* the narrative, too, suggests a fusion between narrator and reader, as the second-person narrative situation removes all noticeable detachment a reader may feel toward the narrating agent. Unlike in the forms of narrative described above, where the player looks over the shoulder of a first-person narrator during his plight in the storyworld, the ‘you’ of Choose-Your-Own-Adventure engenders a nearly totalized synthesis of player and protagonist, and any sense of mediation is paradoxically suppressed. The narrative ‘interface’, to mix terms from narratology and ludology, is hardly recognizable during the quests of the CYOA-player, only to surface again at the end of each episode with renewed force.

In contrast to such forms of narrative mediation in print FNs, many digital texts do not insert any detectable negotiating agent between text and reader. If a text’s rule system and/or nodal structure are narratively mediated at all, this usually happens in an ‘about’ or ‘introduction’ section of an electronic narrative,

which the reader/player can access before she actually begins engaging with the text itself. Once inside the fictional world, the reader/player will generally not encounter mediation by a narrative agent in the sense of a game master; she is left to herself in navigating the textual web, and the sense of disorientation which many hyperfictions generate (often deliberately so) almost automatically rules out the possibility of intervention by a paratextual voice laying bare the text's rules and opportunities. Some hyperfictions, however, take up this lack of mediation in an ironical sense, and self-reflexively comment upon their unwillingness to tell the reader/player what she must do: in Stuart Moulthrop's *Hegirascope*, for example, the hyperfiction generates statements such as "Where you're going there are no maps" or "Think Fast – Read Faster", which is an implicit comment on the quality of this hyperfiction to generate text if the reader does not make a choice within thirty seconds.

Having thoroughly explored the nature of nodal situations in textual FNs, what remains to be seen is in how far individual texts functionalize these situations in order to create openness within the reading/playing experience. In order to assess this overall openness or 'power' of a FN, two aspects must be evaluated and weighed against each other: the nodal power of individual choice situations, and the complexity of the structure into which these nodal situations are integrated.

3.12 Nodal Power

Many, if not the vast majority, of the texts evaluated in this study fit only the minimal condition of containing one or more nodes within their structural makeup. That is, they structurally adhere to the concept of future narration by offering the reader/player a choice of continuations instead of presenting one retrospective, uni-linear, and determined storyline. In this sense, they implement openness within their formal configuration, an openness which enables, and indeed requires, the reader to choose her own path through the narrative. However, the degree to which these readerly choices entail *consequence* is admittedly rather low within the overall corpus of text-based FNs. Consequence, understood as the range of results of a given choice, is meaningful in FNs if and only if the choice affects the status of the textual world in some aspect of its development. That is, when a choice produces two (or more) different and mutually exclusive alternatives of one situation or event, the future narrative has actively functionalized its nodal structure in the sense that the choice taken *matters for the storyworld and/or the reader/player's role within it* – as demonstrated, for example, in many CYOA stories, where a wrong choice can lead to the protago-

nist's immediate death. This is the aspect of *nodal power*, designating the potentiality (i.e., the degree of outcome variation) inherent in a nodal situation – the way in which the storyworld changes depending on how the reader progresses through it. The higher the variance between results of the options which a nodal situation allows – that is, the higher the spread of consequence ensuing from a particular choice – the higher the power of the respective node.⁶⁹ The sheer *number* of possible options, on the other hand, cannot be taken as a reliable indicator for the nodal power of a given situation, as the presence of many options does not automatically entail a high degree of potential variance. It is indeed the range and spread of consequentiality that determines nodal power, i.e., in how many aspects and how deeply the individual outcomes will differ from one another, and what impact this has on the overall status of the textual world.⁷⁰ As will become apparent throughout the following analysis of nodal power in textual FNs, a lower number of options will, in fact, often contain more nodal power than the offering of numerous continuations. However, it is important to bear in mind that the nodal power of a given FN is a *question of degree* rather than a *constitutive prerequisite* for defining a text as future narrative. While it is useful to distinguish those FNs that functionalize their nodal structure with regard to consequentiality rather than present it as a merely self-referential play with structural potentiality, the fact that a text harbours little or no detectable nodal power (by making its choices appear inconsequential rather than significant) does not exclude it from the genre as long as it fulfills its structural conditions – such cases, in short, are variants which do not tap into the potential of future narration, while formally belonging to the very same category as highly consequential modes such as the Choose-Your-Own-Adventure gamebook (or, looking ahead to Volume 4 of the *Narrating Futures* series, the computer game). Indeed, this variability of the degree and realisation of openness through nodal structures proves to be one of the fascinating aspects of textual FNs, as this genre spans the distance from random combinatorics to binary, 'either-or' bifurcation and toward the complexity of collaborative network structures in communal storytelling.

In print FNs, the case of nodal power already reveals itself as highly variable depending on the type of textual artefact considered. In the majority of cases taken

⁶⁹ For a mathematical modeling of this degree of variance, see Volume 1, part 2 of the *Narrating Futures* series.

⁷⁰ Laurel, in her early work, has proposed a similar distinction between the number of choices offered and the quality of their consequences, a position that she summarizes in *Computers as Theatre*: “I posited that interactivity exists on a continuum that could be characterized by three variables: frequency (how often you could interact), range (how many choices were available), and significance (how much the choices really affected matters)” (20).

from hard-copy fiction, the change allowed for by a node concerns solely the repositioning of the reader/player within the textual structure, without any determinable effects on the storyworld itself. That is, the plot or other textual factors (such as characters, time, or space within the narrative) are hardly affected by the integration of multiple pathway opportunities through the story, which suggests a heavily auto-referential play with possibilities rather than a focus on shaping the textual world through readerly choice. This is particularly the case in aleatoric or combinatorial novels, which allow for individual recombination of narrative material, but introduce such leaps within the nodal structure as self-conscious play with the structure *itself* rather than attempting to present the reader/player with different, mutually exclusive alternatives of one storyworld. Only the *reading orders* are characterized by mutual exclusiveness, but the storyworld may not be significantly affected by these different runs. The choices made by the reader/player thus hold no consequence concerning the narrative world, just concerning her experience of it – in *The Unfortunates*, for example, the reader/player may individually select the order in which to read the chapters, but this in no way influences what is presented within these chapters – the fictional world remains stable and unchanged despite the shuffling mechanism induced by its independently bound sections. A similar argument can be made in the case of multi-linear novels such as *Dictionary of the Khazars*, where the reader/player is encouraged to either read the story in conventional linear fashion, or in a non-sequential, random manner. Choosing the latter form of readerly participation has no significant impact on the plot of the *Dictionary* – again, just on the sequence in which we encounter its individual events. While this certainly makes for very different reading experiences, the nodal power of Pavic’s novel and other multi-linear combinatorial texts is comparatively low. In Cortázar’s *Hopscotch*, the ‘alternative’ reading order is even set by the author and thus merely constitutes another sequence, which the reader/player cannot influence by choice making.⁷¹

Nodal power and consequence take on a very different shape in Choose-Your-Own-Adventure stories. In fact, consequentiality is most strongly felt in arborescent fiction, and the CYOA genre proves to be the clearest example of this. Here, the deceptiveness of assuming a correlation between the *number of options* and the *degree of nodal power* within one choice situation becomes quite obvious, as in CYOA, the reader is generally offered only two possibilities for continuation at the end of a chapter. However, the decision resulting from such a node is

⁷¹ Indeed, Parker has argued that *Hopscotch* can only be considered a mock multi-linear novel, as “[w]e are, in effect, hopscotching over squares that have already been laid out linearly, with chapter 73 functioning as the beginning of the alternative reading and chapter 131 as the end” (44–45).

extremely weighty, because choosing one option will eliminate the other, and a choice cannot be modified in retrospect. This is the classical pattern of bifurcation, and it is one that performs the ‘either-or’ dilemma with the greatest force. In fact, the selection of an option in a CYOA-tale almost always directly influences the status of the protagonist and her chances for ‘survival’ within the textual universe – the possibility of death looms behind many a corner. Infusing the nodal situations with such existential force makes this genre (designed for children) the most striking example of how a simple bifurcating mechanism can enable an extremely high degree of consequentiality. Other forms of forking-path fiction, such as Lionel Shriver’s *The Post-Birthday World*, O. Henry’s “Roads of Destiny”, or even the most quintessential of all forking-path novels, Madsen’s *Days With Diam*, do not succeed in generating equally high degrees of nodal power. Indeed, in the first two of these, the ultimate consequence is the same no matter which choices have come before – in O. Henry’s text, the protagonist dies by the same weapon at the end of all three ‘roads’, while in Shriver, the heroine ends up depressed in both versions, no matter whether she decided to stay with her husband or to elope with the high-flying snooker star Ramsey (more on such forking-paths texts in Chapter 4.3.3). Madsen’s novel provides a somewhat more differentiated take on consequence, but still, the impact of the reader’s selection of continuations is nowhere near as existential as the live/die binarism of the CYOA-genre. The high consequentiality of Choose-Your-Own-Adventure can, of course, be related to the format’s game-like nature; these gamebooks place a much higher emphasis on choosing the correct outcome than most of their bifurcating relatives within the print medium, and so the quality of consequence trumps that of quantity.

The cases in textual future narration in which a choice between alternatives results in a significant change within the fictional world are thus few, and their presence is essentially limited to simple bifurcating structures. In more complex network structures, as primarily found in digital narratives, on the other hand, the choices offered often entail arbitrary results, or, to put it differently, consequentiality regarding the status of plot, characters, space, and time is no longer detectable. Playing with connectivity, circularity, exploration, and returning in hypertext may ultimately not bestow any sense of import to the choices made; indeed, this is one of the main frustrations readers express regarding digital network systems of a high complexity. Paradoxically, then, when the complexity of selection mechanisms offered in a textual FN increases (as is unarguably the case in hypertext and other forms of electronic fiction), its overall nodal power may *decrease* because the choices and their outcomes are more often nugatory than significant for the development of the textual universe; self-conscious play with possibilities replaces the act of ‘either-or’ decision making, and which possibility the player chooses is no longer significant regarding the status of the

storyworld.⁷² Interactive fiction, on the other hand, relies on a rather high degree of consequentiality, being conceptually linked to the CYOA-genre in the sense of making the user ‘work’ toward a certain goal, i.e., winning (or losing) the game. The player’s input into the system will directly influence her ability to proceed and succeed in the fictional quest, and though the options she has to realize are usually few, each decision (as long as it is recognized by the parser) *matters* for the development of the story. As in the realm of print FNs, the digital variants of this genre, too, feature highly different degrees of potential nodal power depending on their functionalization of consequence within decision situations.

One major criterion of differentiation between different variants of textual FNs is thus constituted by their differing emphasis on the value of consequence. This aspect of consequence relates, of course, to the patterning which underlies their implementation of decision situations; how weighty a given decision is depends upon the options of reversibility and returning, of being able to ‘undo’ a prior decision in favour of an alternative. The nodal structure of a FN, consisting of the formal arrangements of nodal situations, determines whether such strategies are possible. It holds, therefore, significant implications both for the semantic potential as well as for the reading/playing experience of these structures.

3.13 Nodal Structures in Textual Future Narratives

The combination of a node and an edge (that is, the link or path between two nodes) can produce different nodal structures. Though ultimately, all nodal structures are just different configurations of these same two elements (nodes and edges), the individual arrangement of these elements enables highly diverse possibilities of navigation and choice implementation, and generates different levels of consequence.

To begin with, nodal structures can be differentiated regarding the type of edge connecting the nodes of a FN. While *unidirectional* edges are one-way progressions from one node to the next and do not allow a return to the node from which they originated, *bidirectional* edges permit a back-and-forth movement between the nodes they connect. This differentiation results in two very dissimilar textual geographies, the unidirectional edge furthering a teleological, linear progression from node to node, while bidirectionality encourages the retracing of and circling back to options and possibilities. If only unidirectional edges are employed, this will prevent any node from being visited more than once, thus

⁷² In this respect, hypertextual FNs are very different from video games, which are also based on network structures, but make nearly every choice of the player ‘count’ in some essential way.

placing maximum emphasis on the notion of consequence – once a choice has been made, there is no way back. Conversely, the structural makeup of a FN consisting only of bidirectional edges generates a potentially endless (and potentially frustrating) experience of cyclical motion, where the focus lies not on a one-time selection but on gestures of returning and re-examining.

3.13.1 Directedness: The Arborescent Structure

The most common form of a unidirectional nodal structure is the arborescent or tree structure, where different uni-linear continuations bifurcate from one determined starting point:

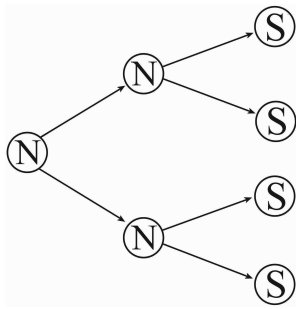


Fig. 1: The Arborescent Structure.

Any run of a tree structure is necessarily uni-linear and has a determined ending point (the ‘end’ of one single branch, marked in Fig. 1 as “S” for “Stop”, which is reached by the decision at the last node “N” of that branch). This structure is characterized by *directedness* and permits no retroactivity, meaning that a return to a previously visited node is not possible: “The formal characteristic of an arborescent pattern is that it allows no circuits. Once a branch has been taken, there is no possible return to the decision point, and there is only one way to reach a given terminal node.” (Ryan, *Virtual Reality* 248)⁷³ The arborescent structure is the underlying pattern of all forking-path narratives and thereby also constitutes the formal makeup of Choose-Your-Own-Adventure stories and interactive

⁷³ Ciccoricco characterizes tree structured texts as “narrative[s] with branches but specifically those that contain mutually exclusive story events or outcomes; a reader of an arborescent narrative makes choices at bifurcating points in the text and continues on until the end of one of the branches is reached” (6).

fiction.⁷⁴ It is also, one must remember, the nodal structure that applies to real life decision-making, as the irreversibility of choices made in the past is one of the most essential characteristics of our every-day existence. When this limited freedom of navigation is carried over into textual structures, we poignantly sense the constraint of the branching pattern, which makes each act of choice momentous and irreversible: once a choice is made, all other options that the nodal situation potentially offered are lost. In this aspect, forking-path stories, while structurally much simpler than complex network systems, are, in a cognitive-experiential manner, closer to our real-life experience in their eliminations of alternatives and the consequent yearning for ‘what might have been’. The weight of consequence, generated by the ‘either-or’ decision mechanism of arborescent narratives, is felt more acutely here than in systems which allow re-circling and returning; which decision is taken at a specific node becomes, in tree structures, the essential factor within the textual experience, and its repercussions can be felt throughout the entire reading process, as one faulty selection, one wrong turn, may influence the rest of the narrative progression. Indeed, tree structured-texts are most often decidedly *based on* generating a heightened awareness of consequentiality, as the direct naming of a given consequence in CYOA stories indicates. Here, the outcome of a negative choice usually has very immediate effects on the narrative world and the player’s status within it; often, making a wrong decision results in the death of the player character. The recognition of having taken a wrong turn can, of course, only surface retrospectively, as the consequence of the decision will only manifest itself after the decision has been made. Even in Choose-Your-Own-Adventure gamebooks, in which the immediate result of a choice is announced as the choice is given (i.e., ‘If you want to go into the cave, proceed to page 26’), the larger impact of this choice cannot be known ahead of time. In this sense, the openness and undecidedness of the future is reflected not so much as a result of an intricately complex structure in these texts, but because the reader/player can never know the full significance of her actions before having carried out her choices.

As a result of their compositional arrangement, arborescent structures allow for a stringently directed, goal-oriented narrative progression: “By keeping each of its branches strictly isolated from the others, tree-shaped diagrams [...] control the reader’s itinerary from root node to leaf nodes and make it easy to guaran-

⁷⁴ Again, see Ciccoricco: “Since they require decisions at branching points that always imply temporal progression at the diegetic level, arborescent fictions share an affinity with another form of computer-based digital fiction that has come to be known as interactive fiction, or IF: the structure of IFs tends to reflect the movement from an Initial Situation to a Final Situation [...], thus reaching the ‘end’ of a given branch” (6).

tee that choices will always result in a well-formed story.” (Ryan, *Virtual Reality* 248) In this sense, the reader, even though she has a choice of options, is very closely guided in tree-structures, as there is usually a concrete ending point to be reached. Teleology is extremely important to this configuration, because an ‘either-or’ choice makes sense only if reading or playing is goal-directed, and favours one decision over another. Random selection of possibility would render the arborescent structure absurd, as, without consequentiality, the strict binary mechanism of choosing *this* over *that* loses its force. Significantly, arborescent fiction allows for closure, and the different branches, between which there exist no connective paths, invite a direct comparison of chosen options and their resulting endings. This, again, increases awareness of individual choice and potentially triggers a sense of regret or frustration about not having chosen differently: ‘If only I had...’ Especially because, within a single run-through, revisiting of earlier decision situations is prevented by unidirectionality, the sense of ‘undoing’ a decision by going back within the branching structure and starting over carries within it a distinctive sense of ‘undoing’ the past: “Returning to a previous bifurcation in an arborescent narrative is equivalent to rewinding a temporal frame; that is, readers undo and redo the story whenever they decide to go back.” (Ciccoricco 6) Due to the fact that ‘rewinding the story’ is not organically realizable in tree fiction – in contrast to network structures, where one circular path can take the reader/player back to a previously visited node without provoking a sense of interruption – the effect of such a rewinding is one of newly found opportunity: a novel chance is given where another has already been squandered. All forms of arborescent textual FNs include this sense of artificiality in the option of undoing: while, in printed tree fiction such as the CYOA-genre, the reader must record her progression through individual chapters and flip back to the page on which the faulty decision was made in order to retry, interactive fiction will often straightforwardly ask the player whether she wants to undo her last move. The text’s rule system thus surfaces expressly within every attempt to retry and choose differently; arborescent structures are geared toward leading the reader/player onto a path of committed choice rather than of rebooting.

3.13.2 Circulation: The Network Structure

Network structures are characterized by paths that are connected at multiple points, forming a web of possibilities that may include feedback loops; the navigational gesture is one of *circulation*:

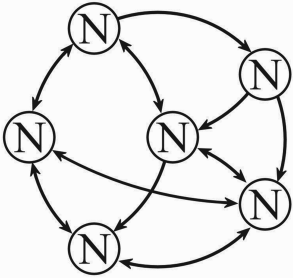


Fig. 2: The Network Structure.

The most critical difference between tree and network structures regarding the reading/playing processes these structures allow is that network fiction, unlike arborescent fiction, permits cyclic movement within its nodal structure due to bidirectional edges between nodes (though, as the above illustration shows, not all edges must be bidirectional to constitute a network). The edges form a multipath maze within which the reader can move in different directions:

A network narrative [...] differs not only in its nonhierarchical organization but also in that its narrative emerges gradually through a recombination of elements. Writers of network fiction are less concerned with confronting the reader with mutually exclusive outcomes and more concerned with the way narratives emerge in digital environments. (Ciccoricco 6)

The ‘either-or’ selection mechanism of tree fictions is replaced here by a much more flexible movement through the text structure; consequence no longer holds an absolute status, but is modified by the ability to revisit nodal situations, altering the initial decision and choosing a different option. Any one single choice, in other words, no longer matters to the same degree that it does in a bifurcating branching structure. In the most extreme form of the network configuration, which Ryan (*Virtual Reality* 246) has termed the ‘Complete Graph’, the connectivity of all nodes is absolute so that “every node is linked to every other node, and the reader has total freedom of navigation.”⁷⁵ While this is not a necessary precondition for all network graphs, the complexity of such structures is heightened proportionally to the degree of connectivity between their individual nodes. Very complex network narratives, including many hyperfictions, also have more than one possible entry point and offer either multiple endings or no discernible ending at all, enabling potentially endless re-circling. Though network structures

⁷⁵ Ryan regards purely combinatorial works such as Saporta’s loose-leaf novel *Composition No. 1* as the only possible versions of such a complete graph; however, there is no reason why complex hypertext cannot also approach this structure.

are most prominently implemented in digital literature, this configuration can also be found in highly experimental print texts, such as Saporta's *Composition No. 1* (cf. Ciccoricco 7) or Johnson's *The Unfortunates*, where the shuffling mechanism permits the revisiting of previously encountered text segments and their integration into different reading orders in which recurrence and repetition are possible.

Network structures generate a distinctly non-hierarchical configuration: “[a] text as a network has no univocal sense; it is a multiplicity without the imposition of a principle of domination.” (Bolter 25) The most extreme manifestation of such an anti-hierarchical network is the ‘rhizome’, which Deleuze and Guattari define in opposition to a tree-structured conceptualization of knowledge. This structure lends itself particularly well to the description of multi-linear nodal narratives, and, indeed, hyperfiction in particular has often been theoretically linked to the concept of the rhizome: “Deleuze used the rhizome root system as a model of connectivity in systems of ideas; critics have applied this notion to allusive text systems that are not linear like a book but boundaryless and without closure.” (Murray, *Hamlet* 132) Rhizomatic configurations are generally not conceived teleologically, the reader or user experiencing the freedom to circle and explore without necessarily having to reach a determined ending point.⁷⁶ This makes these structures especially suitable for narratives that depend on the re-visitation of single nodes in order to unfold their full semantic potential, prompting the reader to reconsider her decision at a prior stage. Such a re-visitation can infuse a nodal situation with new or surplus significance on several semantic levels: by placing the node into a different context, its initial implications are automatically altered. Ciccoricco argues that “reading the same node in new surroundings – a new ‘semantic neighborhood’ – can endow it with new meaning”, and the accretion of knowledge and textual experience by the reader/player will lead to a different weighing and assessment of content, as “a reader may return to a node much later on and find some of its elements foregrounded by information accumulated since first reading it [...]” (29). Such ‘modified feedback’ occurs when the reader is endowed with additional information upon revisiting the node, thus gaining a modified (and most likely, better) understanding of the nodal situation. In more extreme cases, the node *itself* has changed its conditions when it is encountered anew – for example, it could allow more choices of continuation, or, reversely, restrict the accessibility of options. In these cases, however, we must more correctly speak of a *new* node, since the choice situation has changed so significantly that it makes little sense to refer to a ‘return’ or ‘re-visit’ – we can

⁷⁶ Ryan has likewise observed that “[i]n a rhizomatic organization, in opposition to the hierarchical tree structures of rhetorical argumentation, the imagination is not constrained by the need to prove a point or to progress toward a goal [...]” (*Virtual Reality* 8).

only return to a situation if it has remained the same, while we must encounter a situation whose choice parameters have shifted as a genuinely new situation.⁷⁷

Ciccoricco has stressed the importance of repetition and rereading for network narratives; unlike arborescent structures, the gesture of re-visiting (and potentially modifying) nodal situations referred to above calls for a theoretical linkage of network structures with concepts of repeating. Postulating that “network texts insist on being *reread*” (29), Ciccoricco further observes that “[n]arrative returns are often written into the network structure, with a multiplicity of inbound links for any one node.” (*ibid.*) That is, repetition is a central element inherent in the architecture of any networked text which is then actualized during the performance of the reader/player; this is not only due to the desire of the reader to re-visit, but also by the text’s enticement to be fully (or at least satisfactorily) explored: “When nodes recur (or cycle) on a hypertextual path, a reader does not necessarily decide to ‘reread’ material; rather, the text invites the reader to do so.” (*ibid.*) Circling among nodal situations is a structural necessity enforced by the digital medium; by repeating the encounter with individual nodal situations, the reader either re-affirms or adjusts, potentially even reverses, her attitude formed during the original encounter. The degree of navigational freedom is far higher in network structures when compared to the arborescent variety; network structures, like decision trees, both presuppose and require readerly participation, but do not offer the same amount of guidance through the nodal configuration, and thus generate the liberty of meandering through the arrangement without a necessarily predefined ‘goal’. This liberty may at once be fascinating and frustrating; a lack of teleology potentially generates a lack of direction and incentive to move *here* and *not there*.

3.13.3 Exploring and Returning: The Axial Structure

Axial structures are based on the gestures of *exploring* and *returning*; multiple branches, usually bidirectional, diverge from one main narrative path:

⁷⁷ Also see *Narrating Futures* Vol. 1 on this issue: “whenever a nodal situation has changed substantially – meaning: whenever it now allows continuations that it did not allow before –, one cannot speak, like in everyday parlance, of a ‘return’ to ‘that’ situation: because it is no longer the *same* situation” (1.15).

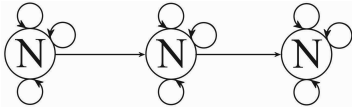


Fig. 3: The Axial Structure.

This is thus “a narrative where digressions are present in the form of glosses or notes that are secondary to the main narrative; typically, a reader returns to the main text after the digression.” (Ciccoricco 6) The narrative stem allows the progression through the text, while the branches permit roaming away from the main axis. The axial structure is characterized by an underlying linearity, provided by the primary axis itself, and usually establishes a determined point of closure located at the end of the main strand. This is why it may be considered the least interesting of nodal situations; while bifurcation is formally possible, it is neither as forcefully implemented into the reception process as in tree and network structures (i.e., the reader may simply ignore the diversions from the main path), nor is its effect comparable in terms of generating truly open choice situations. The reader can always be assured that she will return to the primary narrative after her excursion, and will thus stay completely oriented within the textual structure at all times. Ryan, who has termed this variant ‘Vector with Side Branches’, likens the digressions from the main path to “short side trips to roadside attractions”, and acknowledges the “cognitive simplicity” of this structure, which makes it “particularly popular in electronic texts designed for juvenile audiences [...]” (*Virtual Reality* 249). Because the reader can (and, indeed, must) go back to the primary narrative after each deviation, the movement away from the primary text is less an act of bifurcation leading into a new direction, and more of a collecting of new or additional material that will be carried along on the main axis. The progress through an axially structured text could be compared to a walk through a museum, where the primary path is predetermined, but in the course of which the visitor can visit individual exhibits in more detail (cf. Ryan, *Virtual Reality* 250). Consequence plays a reduced role in this nodal formation, as making a choice is not about choosing one thing over another, but choosing to acquire more information before returning to the main route.

Potentially, each of the three nodal structures outlined above are possible in textual FNs. Though there is a gradient running between print and electronic media regarding the prevalence of tree versus network structures (the former being more widespread in print, the latter in digital fiction), there are enough conspicuous exceptions to the two suggested poles to confirm that a simple equation of arborescence with print and network in fiction will not do – axial structures, moreover, are to be found with equal frequency in hard-copy and digital narrative (through footnoting or informational links, for instance). The influen-

tial factor of consequence, heightened in tree structures where reversibility is not possible and moderated in network and axial structures which allow the return to earlier decision situations, is much more efficient in distinguishing the three primary nodal structures from one another than is the factor of mediality.⁷⁸ Range and spread of consequence crucially determine nodal power, and thereby prove to be the most significant ‘differences that make a difference’ between various types of nodal arrangements. How nodes are connected through which kind of edges (uni- or bidirectional) affects, moreover, the possibilities of reader/player navigation through the nodal structure. Such issues of navigation, leading into a more general reflection on FNs as ‘spatial arrangements’, will stand at the centre of what follows here.

3.14 Issues of Navigation and Space

The nodal structure of a FN not only influences the force of consequence a narrative holds, but how individual nodes are arranged also decisively shapes the possibilities of navigation a text offers during individual runs. More specifically, the linking of choice situations by uni- or bidirectional paths impacts the reader/player’s ability to evaluate different alternatives and weigh them against each other – an ability that permits the optimization of decisions, as we can compare less desirable outcomes to preferable ones, and ‘choose better’ the next time around. In order to perform such a cognitive hierarchization of outcomes, the reader/player must be able to trace different continuations and ‘mentally store’ them for later comparison; this cognitive preservation of alternative plot lines or events not currently realized is an operation which we term the ‘putting on the backburner principle’. Instead of eliminating alternatives for the sake of only one possible option (this is what happens in PNs), the reader/player of a FN can mentally keep track of *different* potential paths through the narrative, compare the currently chosen option to others, and evaluate it in terms of its desirability

⁷⁸ Related to this question of consequentiality is the issue of *feedback*, which is only enabled by circularly functioning structures such as the network. Feedback loops are, within the scope of this study’s corpus, limited to the digital and performative environment; they are an integral part of network-structured hypertexts, in which the interaction of the user with the text allows for modifications of the text in the reception process. However, it is only the reading path of the recipient which is affected by such feedback loops, not the overall nodal structure of the text (which is usually determined and set). Feedback is also relevant in the context of alternate reality games, where spontaneous decisions and actions of the players can strongly influence and change the development and outcome of the game, feedback directly affecting the very architecture of the FN in question.

and feasibility. The selection between alternatives in a FN becomes a matter of prioritization rather than of elimination.⁷⁹ This prioritization within *one single run* can only work, however, in such nodal structures that allow a revisiting of nodes (those, in other words, that implement bidirectionality), because only in these bidirectional forms can a given node be accessed, explored and then mentally stored for later use or modification. In network narratives, options which are not realized during one decision situation can potentially still be activated at a later point within the run because the reader/player is, due to the circular nature of such structures, able to return to the specific node and choose differently this time; the storage of these unrealized options in the mind of the reader/player will actively influence both current and future choice making ('this time, I will take this path – but I know that next time around, I can still try the other'). In unidirectional forms such as the tree structure, on the other hand, unrealized options are fundamentally *unrealizable* options and can only be stored in the mind of the reader/player as (progressively less reliable) checks on the desirability of her current situation, without granting her the possibility of revisiting the decision situation in which the choice was made ('I now know that I should have chosen that path over this one, but it is too late').⁸⁰ Though it is possible to keep prior decisions in mind during subsequent runs of the text (i.e., returning to an earlier node and re-trying a different option), tree structures do not permit the reader to make use of the 'putting on the backburner principle' during any single run. As Ryan (*Virtual Reality* 262) describes this process of option evaluation, "[e]very time the reader is called upon to make a decision, he must detach himself from the narrative 'here and now' and adopt a point of view from which he can contemplate several alternatives. Once the choice is made, the reader may regret his decision and be haunted by the 'could have been.'" Such a sense of regret is not nearly as pressing when the narrative allows the preservation of options; in bidirectional structures, the reader/player can actually compare different options before choosing the most desirable path through the text, as she can test out different alternatives for continuation within one single run-through. This, again, highlights the *explorative* nature of network structures. With regard to FNs in text, we can trace a correlation between the 'putting on the backburner principle' and electronic media, which usually function as bidirectional structures, and, indeed, this makes good sense: complex digital texts such as hypertextual nar-

⁷⁹ In this sense, putting on the backburner relates to what Janet Murray has termed the *replay story*: "A replay story world allows the interactor to experience all the possibilities of a moment, without privileging any one of them as the single choice" ("Game-Story" 7).

⁸⁰ Bordwell likewise remarks that "forking-path narratives tend to treat what we learn about in one world as a background condition for what is shown later in another" (98).

ratives or text adventures *depend* on the mental storage of possibilities for the orientation of the user within the textual web. How to reach a certain lexia, or how to successfully navigate the virtual space of an interactive fiction, can only be learned by the reader/player if she is able to repeat and retrace her steps within this space. Texts functioning according to an ‘either-or’ dynamics, on the other hand, do not allow the revisiting of nodes within one run, and the reader can only put individual options on the backburner for a new reading of the text. In this case, learning does not happen within a single performance of the text, but through repeated tries of re-starting the narrative.

The ‘putting on the backburner principle’ is thus a relevant category for distinguishing between bidirectional and unidirectional FNs. However, its enablement also depends on the overall complexity of the narrative in question: it proves most effective when all paths can be followed and explored at some point during a run. In very complex textual FNs (such as many hypertexts, as well as alternate reality games), in which it is no longer possible to trace *every* possible continuation branching off from one specific node, the ‘putting on the backburner principle’ is less useful, or not useful at all, because not all options can be factored into the comparative evaluation: the reader will not be able to say for certain that she has made the best choice, because not all choices are familiar to her. Thus, there is no way of knowing what was missed or lost along the way, and the potential for comparing alternatives decreases. This is perhaps a good opportunity to remind ourselves that putting on the backburner is a *cognitive category* that is relevant for individual runs of a future narrative. As such, it cannot be represented in a graph and is not part of the architecture of a FN (though, as we have seen, different architectures enable it to different degrees). It is constituted by the ‘traces of experience’ which readings or playings of a multipath text leave behind, and which may then be evaluated against each other in a cognitive processing act. This cognitive operation is one of the factors that make future narratives so different from past narratives, and highly interesting at that: they allow what is neither possible in conventional storytelling, nor in life – the trying and testing out of alternatives, the assessment of differing options, the preservation rather than the eradication of possibility. What is there, what the reader experiences in a single reading of a FN, is as important as what is *not* there, what becomes inaccessible by having chosen a certain path, but what may become accessible in the future, during a different reading. These alternative possibilities are as much a presence as the actual story, and what Moulthrop has constituted for hypertext is applicable to all types of textual FNs: “The text is not all there in a literal sense, and yet what is not visible or present matters very much.” (“Error 404”) The sense of alternatives is thus more pronounced in FNs than in traditional PNs,

exactly because we are aware that there could have been other choices made, other options realized.

Much like the structural configuration of nodes within a FN, the ‘putting on the backburner principle’ explicitly calls up notions of space. Moving through the multipath topology of the text, the reader/player identifies individual options, explores them and stores them for later use, creating a network of possibilities that resembles a cognitive map of comparative evaluative positions. These metaphorical references to network and map already indicate the high importance of spatial conceptualizations in the context of narrating the future. As much as the future itself is categorized as a spatial principle in the sense of a ‘space that lies ahead’ (see Chapter 2.2 of this volume), FNs, too, lend themselves to being described in spatial terms.

3.14.1 The Spatial Topology of Future Narratives

Future narratives rely not only on the temporal category of the ‘not-yet’, but also on concepts of spatiality for an understanding of their nodal arrangement. This becomes apparent even when we look at the different nodal structures, which we have categorized as *arborescent*, *networked*, and *axial*, each term carrying with it a wealth of spatial associations. We speak of individual reading or playing processes as *runs*, which we contrast with the *architecture* of a text’s nodal configuration; we evaluate the possibilities of *navigation* within such a configuration; we classify the *edges* connecting two nodes as *unidirectional* or *bidirectional*: FNs as a concept, in short, are saturated with spatial metaphors. Indeed, as Morson has noted, references to spatiality are common for *all* types of temporal conceptualizations, as “people tend to think of time in spatial terms. We speak of passing through it, of its flow, and of its vast expanse. Events are said to happen at specific points in it.” (*Narrative and Freedom* 17) The ephemeral, disembodied nature of time (and its extension into the future) seems to gain a physical tangibility and manageability by associating it with spatial physicality; however, as much as “[t]ime lends itself to spatialization, enumeration, and geometrical modeling, [...] these processes lose what is essential to temporality: its dynamic movement.” (Grosz, *Nick of Time* 249) By shaping time into spatial arrangements, such as a ‘road’ or a ‘pathway’, we automatically arrest its uncanny progressiveness, turning it into a static formation within which we can wander and gaze. Yet, the (inter)active continuation-by-choice mechanism underlying FNs attempts to mimic exactly this progressiveness, lending procedural energy to otherwise ‘static’ texts; wandering through a future narrative, the reader/player will experience a temporal space that is neither stable nor unchanging, shifting with every decision that she

makes. The space-time-continuum of FNs is thus characterized by dynamic flexibility which echoes Kristeva's notion of "the text-in-process, the text as dynamic 'productivity,' an 'operation' [...]" (qtd. in Friedman 218). Negotiating different options in a nodal situation, the reader/player, rather than moving through an already congealed textual topology, actively operates within the temporal-spatial configuration of the text that is shaped by her agency. Taking once more into account the difference between PNs as (re)presentation and FNs as simulation established in Chapter 2.1, we can also conceive of the latter as operating with a simulative concept of fluid space; Ryan has posited a distinction between representational and virtual/simulative spaces: "Whereas the map is an abstract model of space, the walk-through is a lived experience. Whereas the map has no direction, the tour traces an oriented path through space." (*Virtual Reality* 73) Clearly, we can associate FNs with the latter category of the 'walk-through', a path through the architectural space of the text, which allows different navigational paths that are not predetermined, but accommodate the individual preferences and choice behaviour of the reader/player. Though the deep structure of any future narrative – in the sense of its nodal structure – is a fixed spatial arrangement of choice situations, the textual space as experienced by the reader/player is responsive to her actions, a fluid rather than rigid geography. Spatiality in FNs is thus characterized by multiplicity and dynamic complexity; considering Deleuze and Guattari's distinction between 'striated' and 'smooth' spaces, we could assign future narratives to the latter category, which is "defined dynamically, in terms of transformation instead of essence. Thus, one's momentary location is less important than one's continuing movement or line of flight; this space is by definition a structure for what does not yet exist." (Moulthrop, "Rhizome and Resistance" 303) This idea of the 'not-yet' is conveyed both temporally and spatially in FNs.

3.14.2 Spatiality in Textual FNs

Regarding the subgenre of FNs in text, the electronic format of hypertext narrative in particular lends itself to spatial categorization, as digital text forms as a whole are often conceptualized through metaphors of space; Ciccoricco notes that "[s]patiality constitutes a metadiscourse of digital art and literature [...]" (44).⁸¹

⁸¹ Also see Murray (*Hamlet* 79) on the spatiality of digital media: "Linear media such as books and films can portray space, either by verbal description or image, but only digital environments can present space that we can move through." Spatiality is even more pronounced in video games, which may feature a navigable topology and increasingly infuse this space with a narrative, semantic potential of its own.

Kolb has defined hypertext according to explicitly spatial notions: “A hypertext [...] comes as a web of text, like a landscape that cannot be seen all at once but can be explored along many different routes.” (323)⁸² Wenz goes even further in likening hypertextual structures to “a metropolis. The reader is situated within this metropolis consisting of an immense number of buildings with much more windows to look through. All elements in a city are related and interconnected. The city can be read as a text with indicators such as center-periphery, hierarchical order, or city signs.”⁸³ The aspects of networked connectivity and bifurcation of possibilities are thus made conceivable by assigning them topological characteristics; indeed, nearly all descriptive terminology used in the context of hypertext literature has some relation to ideas of space – the ‘web’ mentioned by Kolb, with its most prominent representation in the ‘World Wide Web’; the ‘path’, the ‘link’ (which implies physical rather than temporal connectivity), and even the notion of ‘breadcrumbs’, taken from the Grimm Brothers’ *Hansel and Gretel*, denoting here the marking of already visited links to aid efficient navigation within the hypertextual topology. By lending such a distinct physicality to this form of electronic writing, the structural complexity of hypertext is categorized in terms of plausibly arranged spatial components, “compensat[ing] for the dizziness that readers may feel, as they face too many choices with too few reasons to chose, by telling them that beneath the apparent chaos of links is order and design.” (Ryan, “Cyberspace”) In fact, the procedure of *cognitive mapping* is a vital part of experiencing a hypertext narrative, the reader recognizing and organizing the spatial makeup of the text she is ‘travelling’ through. Cognitive mapping denotes the operation of mentally forming “maplike structures that allow individuals to situate themselves in their environments.” (Bjornson 52) First coined by the psychologist Edward C. Tolman in 1941, the term originally served “to describe the subjective representations which permit rats to orient themselves spatially and to reach preconceived goals in maze-learning situations.” (*ibid.*) Shifted to human mental activity, cognitive mapping is “a process composed of a series of psychological transformations by which an individual acquires, codes, stores, recalls, and decodes information about the relative locations and attributes of phenomena in his everyday spatial

82 Ryan has remarked on the dispersed nature of hypertext spatiality: “Cyberspace projects not a continuous territory but a relatively loose net made of links and nodes, of routes and destinations, with nothing in between. The destinations, or sites, may be centers of interest, but the connecting routes are not. Travel from site to site is not a voyage through a developing landscape but an instantaneous jump that negates the body, since material bodies can move through space only by traversing it one point at a time” (*Virtual Reality* 73).

83 Again, see Ryan: “the text [of a hyperfiction] as a whole is a territory, the links are roads, the textual units are destinations, the reader is a traveler or navigator, clicking is a mode of transportation, and the itinerary selected by the traveler is a ‘story’” (*Virtual Reality* 281).

environment.” (Downs and Stea 9) Put in simpler terms, we construct mental maps in order to put into relation information about the world we are subjected to; these maps internally structure our external experience in a meaningful way. An important qualification to mention right away is that cognitive maps, by way of being formed by a perceiving subject, are necessarily individual; as Bjornson explains, “every map will have its own idiosyncrasies; it will differ in some way from all other maps.” (53) However, they share the common ground of being essential strategies for humans to make sense of their environments and experiences. These strategies are employed as means of orientation in virtual storyworlds, and surface especially prominently in those storyworlds which themselves designate spaces – the caves or labyrinths of electronic text adventures, for instance.

Spatiality is, however, by no means limited to digital FNs. The exploration of space as a metaphor for temporal development also surfaces in the notion of forking paths as a prominent theme in many texts thematically concerned with the undecidedness of the future. Prime examples of this employment of the image of forking paths include Jose Luis Borges’ short story “The Garden of Forking Paths”, films such as *Run Lola Run* or *Sliding Doors*, as well as many Choose-Your-Own-Adventure narratives, in which the protagonist finds herself at a spatial bifurcation that mirrors her decision process: go left or go right? Return home or enter the cave? Here, space is used as a metaphorical setting for the narrative – the fork in the road as a site of possibility and uncertainty, the cave as an unfamiliar place where unpredictable things can happen – and, in the case of multipath narration, this metaphorical setting is transferred onto the structural makeup of the text, fusing the rich thematic suggestiveness of branching paths with the implementation of choice situations on the part of the reader/player. Forking-path narratives such as “Roads of Destiny” therefore feature a ‘double’ layer of spatial referentiality: one the one hand, space as backdrop for the story, and on the other, space as an allegory of a situational state – the state of being confronted with a choice between alternatives. It is at this point that we can draw connections between FNs and Bakhtin’s theory of the *chronotope* or ‘time-space’, which has also been influential in the context of forking paths. This concept fuses the categories of space and time and provides a “rich metaphorical expansion on the image of the road as a course” (“Chronotope” 17), a course governed both by the flow of time and the expansion of space, where events simultaneously progress temporally and spatially, where space and time meet metaphorically in narrative.⁸⁴ Future narratives are shaped as ‘time-spaces’ where things *happen* more

⁸⁴ Bakhtin has defined the notion of chronotope as follows: “We will give the name chronotope (literally, ‘time space’) to the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature. [...] In the literary artistic chronotope, spatial and tempo-

literally than is possible in any conventionally retrospective narrative, where the text presents itself as a space of possibility and potentially unexpected developments. In order to fully understand FNs, we need the concept of space – we need it in order to map their construction of nodes and edges, to capture their multipath dimensionality, and to appreciate the connection they establish between space as metaphor and space as structure. Perhaps no future narrative can truly keep up with Borges’ “Aleph”, where temporal possibility is condensed into an inch that contains literally *everything* in the universe, but this genre surely comes closer to this ideal than most other narrative artefacts:

In that single gigantic instant I saw millions of acts both delightful and awful; not one of them amazed me more than the fact that all of them occupied the same point in space, without overlapping or transparency. What my eyes beheld was simultaneous, but what I shall now write down will be successive, because language is successive. [...] The Aleph’s diameter was probably little more than an inch, but all space was there, actual and undiminished. Each thing (a mirror’s face, let us say) was infinite things, since I saw it from every angle of the universe. (13)

Future narratives are spaces that harbour possibilities, spaces that contain more than the trace of one actualized path. They grant the possibility to explore textuality in different dimensions, different directions, and in this, they also engender the risk of losing oneself in this textuality.

We have begun to enter the labyrinthine paths of textual FNs, exploring the ways in which their structural arrangement shapes and determines the degree of openness they offer. After this detailed look at the building blocks of future narratives – the node and its assembly into different formations – and at the concrete realization of these formations in the context of textual future narratives, the next chapter shall provide a comprehensive typology of narrating the future in text. From thematical exploration of situational possibility in the novel to the generation of collaborative narrative content in alternate reality gaming, this typology serves as an inventory of the structural implementation of openness within the field of textuality.

ral indicators are fused into one carefully thought-out, concrete whole. Time, as it were, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to the movements of time, plot, and history” (“Chronotope” 15).

4 A Typology of Future Narratives in Print and Digiture

The wide range of textual future narratives we have identified in the context of NAFU comprises very different forms of storytelling that, initially, seem to resist easy categorization and integration into one seamless model of narration. Keeping our deliberately broad definition of narrative in mind – narrative happens when any two events are linguistically and/or mentally linked to each other by a human agent – the scope of texts evaluated in the typology presented in this chapter begins with Choose-Your-Own-Adventure children’s stories and extends all the way to the limits of written textuality in alternate reality gaming or forecasting games, with aleatoric novels, interactive fiction, and hypertextual narrative somewhere in between. Again, it must be kept in mind that virtually none of these narratives (except for prototypical, but uni-linear precursors such as novels with a thematic focus on chance) make much of the future as a topic; rather, their interest lies in the structural preservation of a central aspect of the future (that is, its ability to evolve into different situations or outcomes). Though they all share this interest, they differ radically in the degree to which they implement formal openness. Taking the *existence of at least one nodal situation* as the definitory precondition for identifying a work as a FN, there are undoubtedly still many variants how these nodal situations can be implemented and functionalized in a given text, or, to put it differently, how ‘radical’ a textual FN can be. Of course, it is important to recall that the overall semantic openness of a text does not stand in a one-to-one correlation to the prominence of nodes; indeed, narratives such as the CYOA book, which features stringently binary choice mechanisms and the possibility to select options, are in many ways much more aesthetically restricted artefacts than a heavily ambiguous postmodern text such as Jacques Roubaud’s *The Great Fire of London*. However, when concerned with issues of not-yet-realized possibility and the importance of consequence generated by offering such possibility, even the simple binary mechanism of CYOA achieves the generation of *choices that matter* for the storyworld presented (indeed, one could argue that these choices matter to a far greater extent in Choose-Your-Own-Adventure than they do in digressive narratives such as Roubaud’s axial novel – in the first instance, the protagonist may die when a wrong choice is made; in the second, the reader/player may merely encounter story material which she finds relevant or irrelevant to her understanding of the text). It is this potential of the reader to directly affect the course of fictional events that stands at the heart of future narration, and such readerly agency is, it must be kept in mind, a completely dif-

ferent effect from any general deciphering of aesthetic ambiguity.⁸⁵ FNs turn the reader into a *player of the text*, and Chapter 3 has demonstrated that the games they offer make us question the very heart of what we take narrative to be.

A general tendency along the scale from written text to electronic or even real-life textual performance is, as has been shown in the preceding chapter, that the mechanisms of future narration are more effectively put into action in narrative forms that transcend the physical restraints of the hard copy book. Nonetheless, for a full understanding of the way FNs function within the realm of text, it is important to trace their development from *within* the limits of bound, material storytelling to beyond; the present chapter will attempt to sketch a typological outline of textual FNs from prototypical printed cases to future narration that is realized in virtual multiplayer spaces, such as the alternate reality game. The typology proposed here claims neither absoluteness nor completeness; indeed, as new medial phenomena such as the web novel ('wovel') or forecasting games are developing and expanding, the list of possible FN variants will most likely increase over the next years, including new implementations of user interactivity and structural multi-linearity into narrative and gaming (and fusing these two categories ever more closely). In this sense, the following chapter sketches an open-ended overview of media history from print to digitality, its open ending mirroring the very 'openness' of medial development in years to come. Here, too, the future reveals itself as being undetermined. The synchronic approach of identifying the structures and functions of FNs, presented in the previous chapter, is now followed by a diachronic evaluation of this genre from print to digiture and beyond. The discussion of the individual text genres and narrative formats focuses less on mapping their definitory totality in the sense, to use a cinematographic term, of a wide shot, and more on illuminating those aspects which are relevant in the context of narrating the future – the aspects which make them, in other words, relevant to the category of FNs: nodes, choice, and the issue of consequence. Examples are used whenever possible to illustrate the wide range of FNs throughout the realm of text; these, too, are presented in a spotlight fashion, with a concentration on the features that make them especially prototypical for the issue of future narration in question. More detailed analytical discussions of exemplary FNs are provided in the last chapter of this book, which zooms in on different variants of narrating the future in text through the close structural readings of specific case studies.

⁸⁵ Again, keeping in mind that reader influence on the storyworld is not a necessary precondition for FNs, but an effect that many of them share.

4.1 Imaginative Explorations of the Future: Chance, Choice, and the Resistance to Closure

As the previous chapter has illustrated, the thematic exploration of the future's openness and temporal potentiality is a widespread phenomenon in many different types of fiction and spans across the genres of narrative, drama, and poetry.⁸⁶ Texts that do not *perform* (or enable the recipient to perform) the selection between multiple options for continuation in a structural sense, but that address this multiplicity as a topic, can be considered as *thematic prototypes* for the genre of future narratives, as they reflect in content what FNs functionalize within their formal composition. It must expressly be reiterated here that these texts *are not themselves future narratives*, for they do not operate with nodal situations. The fact that they are considered within the scope of this study is therefore not an acknowledgment of their status as belonging to that genre, but testifies to their topical negotiation of the future's essential traits. That is, imaginative narrative explorations of the future deal with such aspects as chance and contingency, individual choice versus a deterministic universe, and the open-endedness of emergent temporal processes, thus providing a compelling and effective perspective on what the future *is like* while formally remaining uni-linear, traditional 'past' narrations.⁸⁷ The scope of such texts that are prototypically relevant for the genre of FNs is thus not determined by the topic of 'what could possibly happen in the future' (this is why utopias and dystopias are of little interest in this context), but by the actual thematization of the future's central characteristics; i.e., the evolvment and dynamics of time and human behaviour in the face of the 'not-yet'. These texts concern themselves with the *materiality* of the future, so to speak. Considering such literary reflections on the polyvalence of future possibilities serves as thematic groundwork for the later examination of 'true' future narration, and helps to identify crucial aspects of the future as topic. In their reflection on temporal multiplicity, these narratives go beyond the novel's inherent tendency to conjure up divergent possibilities within the imagination of characters (this tendency toward counterfactual thinking in narrative fiction has already been explored in Chapter 2.3). Novels such as Paul Auster's *The Music of Chance* or Ian McEwan's *The Child in Time* assess the potential of any given situation to develop into different (and perhaps unexpected) directions, their characters subject to the unpredictable and often random developments of human

⁸⁶ Familiar examples would be time travel stories and films, as well as experimental dramas such as Michael Frayn's *Copenhagen* or Tom Stoppard's *Travesties*.

⁸⁷ Alternate histories would have to be included under this heading; see Volume 5 of the *Narrating Futures* series for a detailed evaluation of this genre.

existence, thereby exposing the future as being conceptually governed by principles of chance, contingency, emergence, and polyvalent possibility. Positioning these principles at the centre of their narrative meaning, such thematic FN prototypes question storytelling's dependence on temporal sequence and causality, instead privileging chance and randomness. These mechanisms are diametrically opposed to narrative's retrospective formation of a meaningfully connected chain of events, and texts that centre upon them evaluate how narrative can upend conventional understandings of uni-linearity.

By highlighting the factor of chance, such texts emphasize a major aspect of the future, for the existence of chance is a relevant aspect of temporal categorizations of the 'not-yet' – whenever events and situations are able to evolve 'by chance', the future can be categorized as open in the truest sense: "Where chance is at work, the world can exhibit a fixed past and nevertheless confront us with distinct but altogether feasible futures – situations that are descriptively indistinguishable may unfold in different ways and issue in totally different results." (Rescher 138)⁸⁸ Pointing toward what *may* happen in the future, prototypes of future narration attempt to explain such developments not merely by narrative necessity, but by the spontaneous and often random emergence of events. A paradigmatic example of such a thematic centring on the topic of chance is Luke Rhinehart's 1971 novel *The Dice Man*, whose protagonist makes all decisions in life based on the roll of dice. Luke, a psychiatrist, finds himself trapped in an idle, routine existence from which he desperately seeks an escape: "I was caught in a bind. On the one hand I was bored and dissatisfied with my life and myself as they had been for the past decade; on the other, no conceivable change seemed preferable." (15) One night, after a particularly frustrating poker evening with friends, he decides to hand over his decision making to a die, and his very first decision is a particularly brutal one: he rolls the die in order to determine whether or not to rape Arlene, wife of his closest colleague. This initial dice-play enables him to transgress the boundaries of social and moral convention; he rapes Arlene because the dice 'dictates him' to do so, and he perceives himself as "a puppet to a force outside [...], a creature of the die – rather than a responsible agent" (74), justifying his behaviour as "dictated by fate. Not guilty." (*ibid.*) Applying a purely aleatoric principle to his real-life existence, Luke equates the dice with divinity, and increasingly hands over responsibility to chance and luck: "Indecisive? Uncertain? Worried? Let the rolling ivory tumble your burdens away." (80) Though he is acutely aware of the randomness which this bestows onto his

⁸⁸ Grosz has noted that "[a] future-oriented temporality brings with it the centrality of the concept of chance, of what is in principle unpredictable [...]" ("Becoming" 4), and such a version of temporality is evoked in these texts.

actions and onto his life in general, it is exactly this infiltration of haphazardness and unpredictability into his existence which he perceives as satisfying. Paradoxically, however, precisely the nerve-thrill of not knowing what may happen next sometimes puts the narrator into exceedingly dull situations, as when one afternoon “the dice scorned all sorts of exciting options and steered me instead to the corner drugstore to choose reading matter at random.” (80) The narrator thus willingly suspends all individual agency – along with the reader, who does *not* have the chance to influence the story through her decisions in this text – and makes the dice the sole agent for triggering actions and events. This leads him ever more deeply into a state of suspended morality, as he begins manipulating others by the decision made with the dice.

The Dice Man thus plays with and explores the possibilities of the future through excessive gambling. Rhinehart’s novel presents an interesting evaluation of freedom versus determinism, as well as of aleatoric and ludic choice behaviour, all of which are crucial elements within the poetics and performance of a FN – in essence, the Dice Man is himself a player of an aleatoric future narrative: the future narrative of his own life, which is, to him, both genuinely undetermined and governed by the command of the dice. Since the novel is open-ended (it comes to a halt in mid-sentence, with the protagonist about to roll a dice to finish his remark), it defiantly holds closure at bay, pointing to a potentially endless number of options for continuation. In the epilogue, this premise of openness is extended even further, as Luke (now chased by the FBI) leaps off a cliff and finds himself dangling in mid-air, threatened from below by policemen and above by two rodents who start chewing on the vine he is holding on to. Even in this seemingly determinate situation (either way, he will die: either by being shot, or by falling down the cliff once the vine ruptures), he suddenly discovers “a new option” (these are indeed the last words of the novel) in the form of “a cluster of luscious ripe strawberries.” (542) Again, closure is openly rejected in favour of multiplicity; in this sense, *The Dice Man*, at its very end, even formally hints at projecting possibilities that radiate from a given situation. This leads us to the issue of open-endedness and its relevance for future narration, as the most essential way in which printed texts can gesture toward the indecisiveness of the future is by resisting formal closure in some sense.

4.2 What Next? Open-Ended Narrative

All FNs resist uni-linear conclusiveness, and a first step toward offering multiple possibilities for continuation is the presentation of open endings, signalling that closure regarding the narrated events will not wholly be realized. Again, we have

not yet crossed the threshold from past to future narration: open-ended texts do not structurally functionalize concrete nodal situations, but, by withholding a definitive narrative conclusion from the reader, they indicate the very general potential of any situation to evolve into different possible states. Though such texts formally come to an end – necessitated by the material constraints of the book and signalled by the arrival of the reader on the last page –, they constitute a shift of printed texts toward actual future narration by opening up the text to the potential of *imagined* continuations by the reader, who will be prompted to speculate on possible ways to settle the ‘unfinished business’ the text leaves behind. This mechanism is heavily self-referential in a twofold sense, gesturing at once toward the need to physically ‘end’ a text *and* toward its potential incompleteness, its straining against the material boundaries of print textuality that require a fixed ending point due to the determined number of pages. As Lodge has noted with regard to this issue of self-referentiality, “[t]he ending of a novel is the very point at which every reader, however naïve, must recognise that it is not reality but an imitation of it, not a slice of life but a statement about it.” (“Ambiguously” 154) That is, the ‘open’ structure of reality – which can never be subject to definitive closure – cannot be adequately mirrored by narrative endings, which privilege formal termination over eternal perpetuation. The artificiality of ending a narrative referred to by Lodge in the above quotation – and one could indeed argue that any good narrative can never quite be ‘finished’ in the sense of providing the reader with a simple resolution of the problems it has raised – becomes especially conspicuous when the material endpoint of a story does not coincide with the definitive endpoint of the events or situations presented within it. The last page of a book, in other words, does not necessarily have to provide an organically achieved resolution to its storyline(s); it can prompt the reader to spin the narrative beyond its material confines, causing her to cognitively ‘narrate the future’.

Open-ended narratives thus simulate a very basic attribute of the future, which, in this case, also pertains to the ‘future’ of the events presented in the text, namely, that their further development is open, undecided, and subject to individual speculation.⁸⁹ Though open-endedness in storytelling is difficult to

⁸⁹ Korte (cf. 28–31) traces the development of open-ended narratives back to the 19th century, during the course of which closure became more and more problematic and irreconcilable with the complexity of the narrated worlds; she notes a tension between the necessary closure of a work and the potential continuability of events portrayed in nearly all Victorian novels. David Lodge similarly notes that “[i]n the more thoughtful mid- and late-Victorian novelists, [...] we see a tendency towards more and more open, less and less cheerful endings [...]” (“Ambiguously” 150). However, a true dissolution of closed endings is primarily achieved in the 20th century novel.

classify because of the various manifestations of inconclusiveness it embraces,⁹⁰ what all open-ended narrative texts have in common is a resistance to providing the reader with the comfort of tying all loose narrative strings together into a neat knot; these texts do not settle on a solution, but generate still *more* questions, refusing to satisfy what Kermode has termed “our deep need for intelligible Ends.” (8)⁹¹ The withholding of closure can thus be read as a disruptive strategy that triggers readerly conjecture rather than complacency. In a very vivid case of open-endedness, Katherine Mansfield terminates her short story “The Garden Party” (1922) at the climax of an emotionally charged exchange between the principal character Laura and her brother Laurie:

“[...] But Laurie –” She stopped, she looked at her brother. “Isn’t life”, she stammered, “isn’t life –” But what life was she couldn’t quite explain. No matter. He quite understood.

“*Isn’t it, darling?*” said Laurie. (2433)

Cutting the characters off in mid-conversation, Laurie’s last utterance a question and “their futures and fortunes uncertain” (Lodge, “Ambiguously” 151), the text generates an effect similar to switching off the television in the middle of a programme, or letting the curtains drop while the performance on stage is still ongoing. The reader, if she has been immersed in the story’s events at all, will be prompted to mentally continue the conversation, or at least muse on the meaning of this cryptic and unfinished final exchange, which suggests a deep understanding between the siblings, but deliberately excludes the reader from revealing its definitive significance. Through this “radically inconclusive” ending (Fulbrook 123), we are forced to come to terms with the ambiguity and incompleteness of the text’s meaning as a whole. While, to repeat the caveat posited earlier, open-ended narratives cannot be equated with FNs – they are, after all, traditional retrospec-

90 Open-ended narratives may include texts ending on a question or featuring ambiguous last sentences, as in Virginia Woolf’s *Mrs. Dalloway* or Margaret Atwood’s *The Handmaid’s Tale*, changes into another medium (David Lodge, *Changing Places*), or metafictional devices such as the disillusioning afterwords in Iris Murdoch’s *The Black Prince* or Ian McEwan’s *Atonement* (which cause the reader to circle back to the beginning in search for the ‘true’ story under different receptive premises). For a detailed evaluation of open endings in the novel, see Korte (207–220).

91 Ingersoll summarizes Kermode’s attitude toward the relation between time and narrative as follows: “Narrative in the context of Kermode’s conservative theorizing is ruled by the clock; as he reminds us, clocks always ‘tick-tock’, *not* ‘tock-tick’, and certainly not ‘tick-tick’, for a world or a narrative of ‘tick-tick’ would be by implication utterly meaningless.” (15) This favouring of chronological sequence entirely stands in opposition to the structural openness of FNs, and even to radical open-endedness.

tive, uni-linear narrations from beginning to end – they test the ability of fictional texts to create worlds and situations which can be continued beyond themselves in multiple ways by the cognitive participation of an individual recipient. They thus belong to the group of precursory texts that embrace central ideas relevant for FNs – such as the indeterminacy of situational development over time, the potentiality of a given situation to evolve into different directions, the eventness of the present moment, and the multiplicity of possibilities that arise from a given set of determined parameters.

By way of an open ending, the fictional world may even be retrospectively destabilised with respect to its overall coherence, as open-endedness always entails the yielding of conclusiveness to optionality: “In seeking an open-ended future, one is [...] required to [...] acknowledge the capacity of any future eruption, any event, any reading, to rewrite, resignify, reframe the present, to accept the role that the accidental, chance, or the undetermined plays in the unfolding of time.” (Grosz, “Thinking the New” 18) In Ian McEwan’s *Atonement* (2001), for instance, the addition of a highly ambivalent afterword by the novel’s narrator Briony (who only unveils herself as such in this very afterword) radically alters the status of the text as a whole and opens up the narrative to a myriad of possible versions, of which, as Briony admits, she has chosen the one that most satisfied her: “It is only in this last version that my lovers end well, standing side by side on a South London pavement as I walk away. All the preceding drafts were pitiless.” (370) As such, this and other open-ended texts also comment on the basic human desire to speculate and reflect on the future and to envision possible continuations for stories that have *already been told*; as we live our lives “projectively oriented towards the ‘not yet’” (Adam), we cast our desire to apprehend, shape, and experience future developments onto open-ended narratives by extending the narrative further than what is presented to us within it. Morson defines “open time as the excess of possibilities over actualities” (“Narrativeness” 62), and we can project this definition onto open-ended texts, which shift the excess of possibilities to what is physically their ending point, creating an imaginary node from which the reader may develop her own continuation(s). Refusing to offer the reader a clear choice of alternatives to select from, open-ended texts withhold definitive options and can thus be regarded as embodying a radical form of ambiguity.

A distinctive mechanism functionalizing open-endedness for means of suspense generation and audience engagement is the *cliffhanger*. Cliffhanger endings are especially prominent in serialized types of narration, such as TV series and sequel films, as “[s]erial narratives [...] sustain audience involvement between instalments by skilfully setting up plot patterns that encourage speculation on which possibilities will be developed.” (Murray, *Hamlet* 40) Typically, cliffhanger

endings are placed at a point in the story at which one or several situations are unresolved and generate a maximum of suspense, the plot being literally ‘suspended’ as is a person hanging off a cliff; the desire of the reader or viewer to know how the story continues is thereby highly intensified.⁹² As in other forms of open-endedness, the possible continuation(s) are processed cognitively in the mind of the reader, but in the case of the cliffhanger, one of them is later realized as an *actual* continuation of the narrative; one possibility out of the indefinite number of continuations thus manifests itself when the story resumes. In this, the cliffhanger functions by a mechanism we can term *continuation after (temporary) suspension*, and the next segment of plot will pick up exactly at the point of suspension created by the temporary open ending. Commenting on the openness of the future, cliffhangers very explicitly function according to an ‘and then?’ principle, conjuring a desire in the reader to speculate how things might come to a close. This is also one of the central attitudes we hold toward the future, and so both open endings in general and cliffhangers in particular mirror our yearning to know what lies ahead, what comes next in a chain of events.

4.3 Testing the Boundaries of the Printed Format: Multi-Linearity, Multifurcation

While cognitive evaluations of the ‘not-yet’ are triggered by open-endedness, structural bi- or multifurcation enters the text as soon as a narrative presents at least two concrete options for continuing a given storyline – that is, when it employs a node. This is the case in narratives featuring multiple endings and all types of forking-path stories. Any branching structure necessarily triggers a selection mechanism on the part of the recipient, who must choose between the options in order to continue the narrative (unless the FN does not allow the direct participation of the reader/player, which is, however, rarely the case in textual variants – see below). Hence, the adaptation of at least one bifurcation constitutes the transition from the prototypical texts described above to the actual implementation of a continuation-by-choice mechanism: it is the minimal precondition for

⁹² Ackerman traces the origin of the term back to the earliest days of cinema: “The word *cliffhanger*, used frequently to describe a particularly thrilling event or experience, is a leftover from the days of silent movies which were often shown in weekly ‘chapters’ or episodes. Each episode purposely ended with the hero or heroine in a dangerous situation, such as, literally hanging to the edge of a cliff by the finger tips. Thus, the movie patrons were enticed back to the theater the next week to learn if the character had been saved.” (157) The 1993 film *Cliffhanger* (starring Sylvester Stallone) picks up on this notion of ‘bodily’ cliff hanging and shows the protagonist dangling from a cliff in advertising posters.

identifying a given text as a FN. This transition is also marked by a tilt from narrative as actuality (one previously realized storyline) to narrative as potentiality (multiple storylines that are unactualized until a reader/player engages with the nodal structure), as Aarseth has aptly noted: “if the paths fork, with at most one direct path between any two nodes, we can no longer talk about paths in any other sense than as a potential path, a course or itinerary.” (*Cybertext* 44) The potential paths Aarseth refers to are the individual run-throughs of a FN by an active agent. In contrast to the filmic medium, where different continuations are usually displayed within one linear sequence which the audience watches ‘passively’ (i.e., without direct interaction with the medium, as in *Run Lola Run*), textual narratives generally require *some* degree of activity on the part of the reader as soon as bifurcation enters the structural level in order to actualize this potentiality (the differentiation between activity and interactivity having already been established in Chapter 3.4). That is, the reader of a multi-linear printed text must either flip pages or chapters in order to access the next segment of the story; the reader/player of an interactive fiction must provide the parser with input to solve the puzzles presented; the reader/player of a hypertext narrative must click on links to access the subsequent text segment.⁹³ Multifurcation can thus be understood as a more radical method of disturbance when it comes to textual variants of the genre compared to FNs on the film screen, where the agency of the viewer to intervene into the narrative’s structure (by choosing different continuations) is limited by the structural conditions of the medium itself (unless the narrative content is presented on an interactive DVD).⁹⁴ Particularly in the case of printed texts, the inclusion of nodes and choice will trigger a *material* engagement with the narrative that challenges reading habits and changes the textual attitude from linear to ludic. Before evaluating different types of multi-linearity in the print medium, it is, however, necessary to come to terms with the concept of multi-linearity itself, which underlies many diverse types of FNs in text.

4.3.1 Non-linearity vs. Multi-linearity

Structurally speaking, the architecture of any FN must by definition enable non-linearity as it must contain at least one point of bifurcation (in other words, a

⁹³ This is the case, for instance, in all Choose-Your-Own-Adventure narratives, as well as in more intricate branching narratives such as Madsen’s *Days With Diam*. Exceptions where the reader of a bifurcating narrative can access these bifurcations passively, one after the other, are constituted by “Roads of Destiny” and Shriver’s *The Post-Birthday World*.

⁹⁴ For an extensive discussion of this, see Volume 3 of the *Narrating Futures* series.

nodal situation) from which two or more different possibilities emerge. As Aarseth broadly defines non-linearity, “[f]or a text to be nonlinear, it must have a positive distinction: the ability to vary, to produce different courses” (*Cybertext* 41), a definition which also corresponds to the structural concept of future narration as a whole. However, non-linearity as a descriptive term for FNs proves to be problematical upon closer consideration, as it is far wider in scope and comprises more variants than just the formula of bifurcation inherent to future narration; it describes all texts whose events cannot definitively be reconstructed into a chronology, or where the representation of these events cannot be turned into an unambiguous sequence of perception. Recursive looping texts such as Gabriel Josipovici’s short story “Möbius the Stripper” (1974), the Chinese-box-structure found in Iris Murdoch’s *The Black Prince* (1972), or the flashback-technique of Virginia Woolf’s *Mrs. Dalloway* (1925), for example, could also be grouped under the heading ‘non-linear’, but such texts are certainly not part of the FN genre, as they do not operate under a nodal principle.⁹⁵ Therefore, non-linearity, while most definitely an essential concept for the understanding of future narration, must be used in a somewhat more restrictive sense than its original meaning in the context of a structural analysis of this genre; FNs are not only non-linear, but more specifically *multi-linear* insofar as these texts contain the potential of generating *multiple* outcomes of one given situation by offering “a number of disparate or contradictory narrative paths which the reader helps select and which vary each time they are constructed.” (Alber et al.)⁹⁶ While the term non-linearity is thus too ‘fuzzy’ to adequately describe the formal configuration of FNs on its own, multi-linearity more precisely captures their property of enabling the reader/player to take *more than one* path through a text. However, even the concept of multi-linearity must be used cautiously as a defining feature of future narration; a caveat is advisable when talking about individual run-throughs of a text, as these runs can, of course, be perfectly linear – the reading path through a hyperfiction, for example, which is in retrospect a sequentially uni-linear nar-

⁹⁵ Aarseth, too, concedes that “the term *nonlinear* is somewhat broad and unclear [...]” (*Cybertext* 59).

⁹⁶ For the sake of simplicity, the case of forking-path bifurcation, where only two outcomes are offered, will also be subsumed under the heading ‘multi-linear’. Landow similarly corrects the definition of hypertextual narrative as “text that is experienced as nonlinear, *or, more properly, as multilinear or multisequential.*” (*Hypertext* 4; emphasis added) However, hypertext is precisely not *experienced*, but *constructed* in a multi-linear fashion. The differentiation between non- and multi-linearity with regard to hypertext is also picked up by Bolter: “As many have pointed out, hypertext is not nonlinear, but multilinear” (128).

rative construct or ‘protocol’.⁹⁷ It is thus only the *architecture itself* which allows the conceptual implementation of multi-linearity at all, and makes little sense to classify the reading experience of a FN as multi-linear, since the choices of the reader/player will necessarily eliminate multiplicity for the sake of determining a specific route through the storyworld.⁹⁸ Once more, the differentiation between architecture (or deep-structure), run, and protocol in FNs proves to be crucial here, as it is only this differentiation which allows an exact use of the term multi-linearity and avoids confusion regarding the possibilities the text enables versus the actions that the reader/player actually carries out.

4.3.2 Problematical Presence: Multiple Endings

When a narrative offers more than one conclusion to the events presented within its story, it semantically and formally emulates the concept of an ‘open’ future, but does this in a paradoxically more determinate sense than the open-ended narratives described earlier in this chapter. By limiting the options to a finite and specified number, texts with multiple endings arguably grant the reader *less* freedom in conjuring up continuations than open-ended texts, which may trigger unfettered speculations about possible conclusions. Still, much like narratives presenting open-endedness, texts proposing more than one possible conclusion self-referentially play with readerly expectations of receiving an authoritative version of closure; by encountering a surplus of possibility, the reader is called upon to actively make a selection between these possibilities (or at least to ponder upon their differences). This is where choice enters into the picture: multiple-ending narratives turn the focus on the reader/player and on the necessity of decision making, as the existence of multiple endings automatically requires an act of selection on the part of the recipient. As such, these texts link themselves to the concepts of activity and agency, issues which take on a central role within the genre of future narratives and which determine the experience of encountering a FN to a significant degree.

⁹⁷ Aarseth similarly cautions against confusing reading performance with deep structure: “a piece of writing on paper or a computer screen should not be confused with the act of reading it. To say that hypertext readings must be linear is just another way of saying that they are temporal, which again simply refers to the temporality of our existence” (*Cyberspace* 46).

⁹⁸ Oddly, this differentiation between script and performance seems to be the cause of Aarseth’s reluctance to use the term multi-linearity, even though he correctly distinguishes between the two: “So, should we decide to use the term *multilinear*, what lines are we referring to, the lines of the net or the lines of the courses?” (*Cybertext* 44).

By definition, multiple ending narratives must feature at least one node at which the plot branches out into at least two different continuations (which, in this minimal case, also constitute the endings of the narrative in question). Hence, such narratives follow the classical model of the forking-path structure, as McHale has noted: “‘True’ multiple-ending texts [...] are obviously related to the forking-path narratives in which mutually-exclusive possibilities have been jointly realized.” (109) Up to this point of bifurcation, these texts can be (and usually are) completely uni-linear – as in B.S. Johnson’s short story “Broad Thoughts From a Home”, for instance, which withholds the offering of diverging continuations until the very last paragraph, where through a “[m]agnanimous gesture [...] the reader is offered a choice of endings to the piece.” (75) Other narratives presenting multiple conclusions are less clearly organized – the paradigmatic example being John Fowles’ *The French Lieutenant’s Woman*, whose first of three alternate endings surfaces about two thirds of the way through the novel, though this is an unsatisfactory ending by any standard and clearly poses as an ironical mock-Victorian attempt at closure where no closure can – and should – be granted (cf. Korte 201). The very ‘last’ ending of the novel, presenting a variant of the Charles-Sarah-relationship that is conflicted, disharmonious and ambiguous, seems, at least to the modern reader, much more convincing and in this openness ‘more satisfactory’, and so it paradoxically provides a deeper sense of closure than the traditional Victorian denouement; in realizing that the fate of the two protagonists remains essentially undecided, we are granted the opportunity of reconciling these Victorian characters with our modern-day experience. The openness and ambiguity of the (chronologically) ultimate ending paradoxically supersedes the *structural* openness suggested by the presentation of alternative conclusions; this, again, illustrates the higher degree of semantic indeterminacy that open-ended narrative (*without* specific versions to choose from) possesses *vis-à-vis* multiple endings. Because of the limited potentiality of multiple endings, Ingersoll has identified Fowles’ text as “a pastiche of the text of choice: the reader may ‘choose’ a ‘happy ending’ or a more ‘realistic’ one” (121) – the inverted commas around the word ‘choose’ testify to the fact that presenting alternative endings to any printed text is always compromised by the presence of all endings, which must necessarily be encountered sequentially and are not mutually exclusive in any *material* sense. The ‘either-or’ of a true choice process, in which the selection of one alternative cancels out the other alternative, can thus not be absolutely transferred onto the printed page, as the text itself preserves all possibilities in a material sense. The narrator of Julian Barnes’ *Flaubert’s Parrot* aptly wonders whether

[w]hen the writer provides two different endings to his novel (why two? why not a hundred?), does the reader seriously imagine he is being ‘offered a choice’ and that the work is reflecting life’s variable outcomes? Such a ‘choice’ is never real, because the reader is obliged to consume both endings. In life, we make a decision [...] and we go one way; had we made a different decision [...] we would have been elsewhere. [...] After all, if novelists truly wanted to simulate the delta of life’s possibilities, this is what they’d do. At the back of the book would be a series of sealed envelopes in various colors. Each would be clearly marked on the outside: Traditional Happy Ending; Traditional Unhappy Ending; Traditional Half-and-Half Ending; Deus ex Machina; Modernist Arbitrary Ending; End of the World Ending; Cliff-hanger Ending; Dream Ending; Opaque Ending; Surrealist Ending; and so on. You would be allowed only one, and would have to destroy the envelopes you didn’t select. *That’s* what I call offering the reader a choice of endings; but you may find me quite unreasonably literal-minded. (89)

Barnes’ narrator describes an ideal state of printed forking-path narration that is realized and realizable only in the digital medium, for “[a] novel containing a branching story of ‘diverging paths’ still forces all its multiple worlds on the reader, whereas the hypertext offers the reader the opportunity to actualise just one of them, while [...] leaving the others unread.” (Dannenberg, “Hypertextuality” 278–79) This problematical *presence* of printed material, contrasted with the potential *absence* of digital content (already explored at length in Chapter 3) is perceptible in all forms of future narration, but manifests itself most clearly when the alternatives are, as in multiple-ending narratives, presented consecutively. The reader is, by default, bound to the sequence in which the endings are presented to her; though she may choose to read the endings in a different order once she is aware that there are different possibilities, she will already have encountered them in their original sequence at least once, and this will inevitably shape her appraisal of them (she may, for instance, surrender to the ‘recency effect’ and lend the ultimate ending most credibility simply because it is positioned last in the sequence).⁹⁹ If the reader decides to cognitively shuffle the endings according to her individual preferences, she has already stepped outside her conventional role and accepts a game that the narrative arguably offers to her, albeit the invitation to play is issued in a very indirect way, and is by no means presented as a necessity: she *could* just as well read sequentially and accept the ‘and then’-principle as the guiding mechanism for the reception of the story. Sequence dominates the presentation of multiple endings in the printed format, and this

⁹⁹ The recency effect is a media-psychological hypothesis that concerns itself with the relation between recipient interestedness and the degree of credibility he assigns to a message. If a recipient is interested in the content of messages, he will likely lend the most credibility to the last message he receives.

is why multiple ending novels are only a very minimally effective variant of FNs. However, despite these difficulties in implementing true openness, they constitute a first step toward the staging of possibility, as they transcend the conventional uni-linearity of the novel by including a bifurcating mechanism at their close. In this, they suggest the various extensions that one given storyline may be subjected to, even if the moment of openness does not go beyond the single bifurcation. The structural implementation of the forking-path principle is carried out in its most reduced form, and the semantic implications of multiplicity are still severely limited.

4.3.3 Crucial Junctures: Forking Paths

Forking-path narratives connect the metaphorical trope of the ‘fork in the road’ as a point of decision and potentiality with (at least one) actual structural branching. This image of the bifurcating road leads us to the perhaps most important literary text imaginatively exploring the potential of forking paths, Jorge Luis Borges’ short story “The Garden of Forking Paths” (“El Jardín de senderos que se bifurcan”, 1941). The text’s proposition of infinite possibilities offered by a work of fiction in which temporal simultaneity allows the experience of the proliferation of options can be considered as a conceptual *über*-FN: “In all fictional works”, the Sinologist Stephen Albert proposes with regard to differentiating conventional narratives from the imagined novel, “each time a man is confronted with several alternatives, he chooses one and eliminates the others; in the fiction of Ts’ui Pên, he chooses – simultaneously – all of them. *He creates*, in this way, diverse futures, diverse times which themselves also proliferate and fork.” (26) The idea of simultaneous choice in which options do not cancel each other out, but exist side by side is, of course, an impossibility in real-life temporality, but refers to the “metaphysical possibility of alternate times” (Sassón-Henry 66) explored in this imaginary text which, in its network-like structure, foreshadows hypertextual organization.¹⁰⁰ In replacing the selective ‘either-or’ mechanism with an ‘and-and’ pattern, Borges’ imaginary text gestures toward the structural configuration of the rhizome with its “conjunction ‘and...and...and.’” (Deleuze and Guattari 25) This rhizomatic arrangement is also, we must remember, the underlying pattern of many FNs featuring bidirectional edges which enable a return to previously visited nodes – besides most digital hyperfictions, this pattern also includes a large portion of video games, which are based on the notion of improving the

¹⁰⁰ A hypertext version of this story used to be available; it has, however, been taken offline.

player's interaction with the game by providing the chance of retrying by re-circling through the web of the rhizome. In this sense, Borges' text may appear to be the perfect printed version of a highly complex FN; however, it formally does not keep up with what it thematically promises. As Ryan has rightly noted, "The Garden of Forking Paths" does *not* implement its proposed multiplicity and stratification of options into its structure: "In Borges's story, Ts'ui Pên's novel remains virtual, described, but not written. The embedding tale is a suspense story with a traditional linear development." (*Avatars* 141) "The Garden of Forking Paths" is, in other words, undeniably a past narrative. This is primarily due, of course, to the medium in which Borges writes, as print texts are not particularly suitable for truly realizing simultaneity and synchronically accessible alternatives (this point has repeatedly been made in Chapter 3 of this study). Borges' text does not offer formal multiplicity because its imaginative conjuration of concurrent possibilities is so complex that it *transcends* the limitations of bookish materiality by "exceed[ing] the constraints of the print culture through language." (Sassón-Henry 33) In its "enigmatic game between the mind and the power of language" (*ibid.* 32), it projects a labyrinth of unprecedented dimensions, and one that cannot be contained in any conventional medium of textuality. It proposes what, indeed, no FN, not even that of the most radical kind, can ultimately achieve: a true temporal stratification, with all branches emerging side by side as equal possibilities immediately accessible.

Actual attempts at implementing forking paths within a text fall – as is to be expected – short of Borges' branching temporal simultaneity; a rare example of the form is O. Henry's short story "Roads of Destiny" (1903), where three endings radiate from one nodal situation early on in the narrative. As the story's protagonist, who finds himself at a fork in the road both literally and metaphorically, successively chooses to walk down "The Left Branch", "The Right Branch", and "The Main Road", he eventually encounters the same fate (his death) at the end of all three branches – and even dies by the same weapon in every version. 'Branch' is here equated both with the topological image of the road within the storyworld and with the overall structure of the story; however, the generation of truly *different* possibilities remains a feeble attempt within Henry's fictional universe. The metaphor of forking paths, while formally implemented in this text, merely points to a rigidly deterministic worldview, where an individual's choices ultimately make no difference in the unfolding of his fixed fate. The finality and irreversibility of choice making is even recognized by the protagonist (a young poet) himself, who, after having quarrelled with his lover and made the decision to "leave his home [...] to seek fame and honour in the great world outside", seems to momentarily waver in his determination before he sets out to wander into the night:

He saw a light yet shining in Yvonne's window, and a weakness shook his purpose of a sudden. Perhaps that light meant that she rued, sleepless, her anger, and that morning might – But, no! His decision was made. Vernoy was no place for him. Not one soul there could share his thoughts. Out along that road lay his fate and his future. (1)

The promise of reconciliation on the ensuing day is immediately undermined by the poet's sense that the outcome of events *has already been written for him* and is merely left for him to trace along the path on which he travels. This impression of inevitability is reinforced when he encounters a carriage on "The Left Branch" and is ordered to enter it by an ominous voice resonating from inside; "[o]bedience", he realizes, "belonged in the path of such a voice." (2) Indeed, this carriage only transports him further into a situation in which he is an oddly helpless onlooker – he is faced with the decision to marry a young noblewoman, and accepts, only to find out that she is actually a woman of "black lies and red ruin" (7); he then fights with the matchmaker and is slain. His own hopeful prospect that "I think I have a future; I will not always be a shepherd" (6) is thus cruelly terminated by a destiny that will haunt him in the other two story strands, as well. The fact that he dies by the same pistol in all three versions, though he encounters totally different situations and individuals, only reinforces the significance which determinism has in this textual universe, a universe where both the protagonist's and the reader's choices have no influence on the outcome of events. Though "Roads of Destiny" formally complies with the requirements that let us identify it as a FN (one node, multiple paths), the prevailing sense of conclusiveness and closure despite its formal multi-linearity is an extreme example of the potential ineffectiveness of forking-path fiction when it comes to the successful functionalization of offering multiple outcomes. The inability (or unwillingness) of the story to offer genuinely divergent alternatives resulting from a nodal situation points toward the difficulty of achieving true structural openness in print fiction, as the printed text both offers and withdraws the enticing possibility of transcending its material limitations. Again, this has to do with the necessity of *presence* in the bound book, as all alternatives are *already there* when the reader begins the tale, and remain unalterably congealed on the page – their sequence is set and though it is subject to the will of the reader to 'play', it remains as determinately fixed as the fate of the young hero in O. Henry's story. Borges' imaginative branching design may, in print, remain forever inaccessible.

Despite such shortcomings of the printed forking-path narrative regarding the implementation of openness, this variant of future narration offers some valuable and important conceptual insights into the workings of bifurcating systems as a whole. The structure of forking paths is, on a metaphorical level, strongly linked to choice and decision processes, as Dannenberg has observed:

The fork metaphor is [...] used to describe two different stages of a decision-making process. In the first stage a character contemplates two (or more) as yet unactualized future alternatives represented by the fork metaphor, which expresses the idea that decisions are junctions in the road. Later, when the decision has been made, the unactualized path of the fork becomes a counterfactual branch of 'what might have been', now contemplated by the character localized on the other actualized path. (*Coincidence* 71)

What is here described as an act of character choice is, in FNs, transferred onto the level of the textual architecture, and the choice becomes that of the reader encountering the branching options of the text (or, in more advanced digital forms of narration, that of the reader's avatar). The basic effect of counterfactuality – 'what if I had chosen the other alternative'? – however, remains the same no matter whether the fork in the road is encountered by a character or by the reader/player; on both levels, the choosing agent is called upon to make an 'either-or' decision and will inevitably wonder about the potential outcome of the other, bygone alternative. As has already been noted in Chapter 3.13.1, the act of choice involved in forking-path narratives necessarily evokes a 'longing for the other', because in traditional narratives (as, indeed, in life), options not chosen at the juncture become permanently irretrievable – "The Road not Taken", as the title of Robert Frost's 1915 poem recalls. In this sense, forking-path FNs prohibit exactly that which must also be forsaken in real-life decision processes – the preservation of alternatives branching off a from node *after* a choice has been taken.¹⁰¹ Though future narratives differ from life in that the reader/player can 'start over' and choose a different path the next time around (this is no trivial concession: it empowers the reader to *play on*, as John Keats would have it), an effect of mutual exclusion between individual possibilities occurs during any one run-through of a bifurcating FN, the differing paths being ontologically separate from each other: no traversals or shortcuts between them are possible. When potentiality turns into actuality, it paradoxically carries with it a sense of loss, a loss only partially reconciled by the fact that the printed page physically preserves what is 'left behind' in a given nodal situation.

Texts such as "The Road Not Taken" or "Roads of Destiny" are vivid examples of the strong connection between structural bifurcation and the metaphorical trope of a 'juncture' or 'fork in the road'. The notion of spatiality indeed proves to be very relevant for this particular type of narrative branching, since the very term 'forking paths' suggests a spatial conceptualization, and many texts dealing

¹⁰¹ As Dannenberg aptly remarks, "the metaphorical conceptualization of 'choice' as a fork in the road is a deceptive one, since in the real world the fork ceases to exist as soon as a decision has been made" (*Coincidence* 218).

with forking paths in a thematical and/or structural sense rely heavily on spatial metaphors to underline the idea of bifurcation. As the structure of the narrative shifts, the space of the textual world mirrors this shift from uni- to multi-linearity. When we come to a juncture in the road, we must decide how we want to continue our way; forking paths are a topological representation of this decision process. They are also, as Mikhail Bakhtin has observed, thematically connected to the phenomenon of chance. With regard to his concept of ‘space-time’, or the ‘chronotope’, Bakhtin comments that “[t]he road is especially [...] appropriate for portraying events governed by chance.” (“Chronotope” 17) Applying this notion of the road as a site where accidental or unintended happenings are possible – a chronotope where events spontaneously evolve and intersect – to the concept of forking path structures in general, it can be argued that branching need not necessarily be a result of conscious selection on the part of a choosing agent. Chance branching has very different implications for the overall semantic potential of forking paths than a decision-generated multifurcation, for it introduces the category of randomness into the generation of the branching structure; in the textual FN genre, it is most likely found in electronic media such as advanced hypertexts (Stuart Moulthrop’s *Hegirascope*, for example, where the text selects a random option if the reader has not activated a link within 30 seconds). Indeed, in order to integrate spontaneous chance bifurcation into a future narrative, we need an *active* medium in the sense of a medium that generates decision content on its own;¹⁰² though any reader/player can make decisions based on chance (by randomly selecting an alternative without information about its consequences), such decisions will still, in a very minimal sense, be determined by the actions of the player (who chooses left over right, page *x* over page *y*, or link *a* over link *b*). True chance processes are only possible when the medium functions completely independently of its user, and this is only feasible once we move into the digital realm. Chance, in other words, requires a machine.

Branching structures in written texts are, this much should have become obvious, the exception rather than the rule, as any appropriation of Borges’ imagined multi-linear universe is difficult to realize in print fiction. One particular genre, however, has integrated bifurcation into its form as a necessary constituent instead of presenting it as an eccentric aberration: stories geared toward children functionalize formal branching to emulate game dynamics, and encourage their readers to ‘Choose Your Own Adventure’. The difference between CYOA and other types of bifurcating narratives resides in the fact that the former poses *as a*

¹⁰² Aarseth has identified texts that generate content on their own as ‘transient’ as opposed to ‘intransient’ texts: “Some texts [...] scroll by their users at their own pace, while others do nothing unless activated by the user” (*Cybertext* 63).

game, making its multi-linear structure both obvious and immediately accessible to the reader – the options are not, as in the case of multiple endings, experienced sequentially, but can only be activated if the reader ‘jumps around’ in the textual structure. Reading becomes an openly ludic experience, and what is tested in previous types of multi-linearity described above is now implemented as the central configurative principle. We are moving one step closer toward FNs as interactive experiences.

4.3.4 Choose-Your-Own-Adventure Stories

Conceptualized as a series of gamebooks for children, Choose-Your-Own-Adventure stories flourished before the advent of computer games and are generally regarded as the print predecessors of digitalized reading and gaming experiences.¹⁰³ A first important aspect to note about CYOA is that this genre is not *intrinsically* different from these medially much more advanced variants, because it, too, depends on reader/player selections that directly influence the storyworld and generate different versions of how this world is encountered. That is, participatory gamebooks, which were immensely popular during the 1980s, largely satisfy the same desire as interactive fiction or video games: to interact with a world by way of meaningful choices, and thus to be actively in charge of one’s character instead of merely witnessing that character’s decisions as a passive bystander. Swinehart has described CYOA books as “effectively a new kind of software application for the oldest information-display platform we have”, and this points very succinctly to their status as prototypical hard-copy structures for digital textuality such as hypertext or video gaming. They turn the reader into a player, and replace tracing a uni-linear sequence with managing choice, optionality, and multi-linear story branching.

If this paints a rather affirmative picture of CYOA’s quality of engaging reader participation, we must issue two qualifying reminders right away: first, Choose-Your-Own-Adventure has, despite its inclusion of nodes, encountered severe

103 Interestingly, a further sub-genre in which the Choose-Your-Own-Adventure format has recently been implemented is chick lit. Works such as the 2007 CYOA *Lost in Austen: Create Your Own Austen Adventure* (discussed further down in this section) and *A Million Little Mistakes* (2010), which has already been considered in section 3.9, functionalize binary choices at the end of each chapter to create participatory reading experiences, which, in Webster’s case, are clearly connected to the fan fiction genre. Digital forms of the genre are also being explored; the CYOA digital novel *99 Reasons Why* (2012) offers the reader eleven possible endings to choose from, where “[t]he conclusion depends on the reader’s tastes and mood and on their answers to multiple-choice questions on colours, numbers and objects” (Alberge).

problems in implementing ‘openness’ in the sense of unpredictability or reader freedom, which result both from the binary choice mechanism they operate with and from their inflexible formal composition – these problems will be addressed in detail below. Second, gamebooks are, aside from few exceptions, written for an audience that seems to accept choice and openness in the printed text far more easily than the average reader: children. While the inclusion of formal multi-linearity in literary books is rare for a very simple, but plausible reason – namely, that adult readers do not want to be put into a position of choice when reading a story, but rather want to engage in the story by reading for the plot – CYOA addresses the propensity of children to ‘have a say’ in how a certain plot develops, a propensity that is continually furthered by children’s role-play, fantasy games, and participatory storytelling (a parent, for example, encouraging the child to take part in the creation of a bedtime story). Young readers have not yet established a clear boundary between games, in which they take an active part, and books, where they are (conventionally) expected to be a ‘passive’ recipient only. Children are thus obviously more prone to engage themselves with a narrative, and not only accept, but openly take pleasure in being able to shape the story through their choices. The enthusiasm which Choose-Your-Own-Adventure generated on the literary market must therefore always be read in light of their special focus on young audiences, who do not (yet) experience the offering of diverging choices as a detriment, but quite on the contrary, as a perk, of storytelling.

Structurally, gamebook narratives are based on a continuation-by-choice mechanism; at the end of every chapter, the reader must select between (at least) two different options for continuation, deciding how the story will evolve in the subsequent sections. The ‘either-or’ of the CYOA format thus enforces mutual exclusion: after one of the alternatives has been accessed, the other alternative is necessarily cancelled out. Traversing the text is characterized by the process of *elimination*. As such, “Choose Your Own Adventure is a simulation that approximates the choices that we face in our lives” (Hendrix) – in life, too, options not selected may no longer be accessible, generating the sense of ‘if only I had...’ The major difference to real-life decision making is, of course, that gamebooks allow the re-starting of a certain path (more on this below), but within one single run of the story every choice is absolute and allows no alternatives. This absoluteness of consequence is effected by the structure of CYOA-books, which takes the form of arborescent fiction where multiple paths branch off from one initial starting point: “The underlying structure of these stories is a tree-shaped diagram, on which each branch is kept separate from the others.” (Ryan, “Beyond Myth”) Because of the uni-directionality inherent in this tree structure, Choose-Your-Own-Adventure tales combine reader activity with a maximum spread of consequence, resulting in a comparatively high degree of nodal power due to the

‘either-or-mechanism’ of their decision structure: “The situation may at times be altered radically by any single decision.” (Angileri 68) This sets them apart from technologically more advanced forms of choice enablement such as hypertext narratives, which often lack the potential of making the reader’s decisions matter in any significant sense of shaping the storyworld.¹⁰⁴ This genre, in essence, is the closest approach to future narration within the realm of the print medium; each chapter ending presents a nodal situation which offers the possibility of different continuations through the storyworld, and indeed, the choices the reader makes generate individual versions of how a situation is encountered and transgressed.

The reader is, therefore, granted the power of shaping her own fate within the narrative world of CYOA, and she undergoes an “active experience” (Montgomery) while being involved with the text.¹⁰⁵ These texts are clearly based on triggering – at least the expectation of – agency by rendering the results of their nodal situations consequential rather than random and haphazard: “Although [Choose-Your-Own-Adventure books] could hardly be considered realistic or immersive, they were early attempts at creating a sense of agency in readers by allowing them to significantly affect the events of the story.” (Szulborski 74) As was already briefly considered in Chapter 3.12, the consequences arising from choosing one particular continuation over the other in the original CYOA-series frequently results in the most irrevocable state of being – death. As issue 61 proclaims on its title cover: *Don’t Bother – You Die in Most of the Endings Anyway*. Indeed, a young reader in an early article on the genre professes that “[t]he best part of the series is ‘that you don’t know if you are going to die or not.’” (Kraft)¹⁰⁶ Generating suspense and ludic motivation through the anticipation of fatality, this format again mirrors digital gaming environments, as character death is one

104 In this context, Costikyan’s claim that Choose-Your-Own-Adventure books are “actually quite like hypertext fiction: you read a passage of text, at the end of which you are generally called upon to make a choice (the lady or the tiger), then turn to another passage elsewhere in the book that describes the outcome of the choice” (“Games, Storytelling” 7) cannot hold but in the most basic sense that these are both choice-based text formats. The differences between the choice mechanisms involved and the ensuing sense of consequentiality are so great, however, that the likening of CYOA to hypertext with regard to choice is highly problematical. Costikyan’s later observation that “in some ways, it [CYOA] [is] almost identical to hypertext fiction (read a passage, select a link, read another passage) except that hypertext is the purview of the literati, and game books are viewed as degraded hackwork” (8) does nothing to clear up the confusion.

105 Angileri likens the Choose-Your-Own-Adventure format to “a do-it-yourself-story-kit or ‘salad bar story’” (68).

106 However, the imminent danger of death could also suggest a paradoxical *diminishing* of agency experienced when ‘playing’ these texts – the inescapability of mortality as the ultimate fatal choice implies a sense of paralysis inherent in decision making, the very opposite sensation to the feeling of pleasurable agency suggested by the genre’s continuation-by-choice pattern.

of the most frequent outcomes of a large number of computer games. Indeed, such character death may be of even *more* consequentiality in the printed environment of Choose-Your-Own-Adventure, since it automatically enforces story closure, while modern video games are potentially able to break through this closure by ‘resurrecting’ the dead character in order to keep the game running.¹⁰⁷ When the motivation for playing well is staying alive, making the ‘correct’ choices will certainly result in a noticeable sense of achievement, as the player thwarts existential danger by selecting the right alternative, upholding her status as a functional agent within the storyworld.¹⁰⁸ Besides this openly ludic aspect of differentiating between ‘bad’ and ‘good’ choices, some CYOA variants enforce gameplay to an even stronger degree by including a cumulative ‘point system’ within their nodal structure. An example of this is Emma Campbell Webster’s 2007 intertextual chick lit Choose-Your-Own-Adventure *Lost in Austen: Create Your Own Austen Adventure*, which clearly moves beyond simple CYOA narratives in more openly posing as a *game* between text and reader. The latter is put into the position of Austen’s arguably most treasured heroine Elizabeth Bennet and has two primary ‘goals’ in moving through the textual construct: the first is, of course, making the correct choices within the storyworld to advance the narrative in a positive, i.e. favourable manner by eventually reaching a happy ending (that is, a happy ending of the relationship between Elizabeth and Darcy); the second lies in collecting ‘character points’ in the categories of accomplishment, intelligence, confidence, connections, and fortune. It is this latter goal which strongly ties *Lost in Austen* to the more complex genre of video gaming, as it is possible to shape and improve one’s character by the accretion of positive values or experience points, which signify the changes that a player’s actions have on the development of her character. The player, in other words, is directly in charge of how her character fares in the course of the story, and the character’s abilities, in turn, significantly influence her chances of winning the quest for romance. In accumulating experience and knowledge about the manners and conventions of the period in which Austen’s novels are situated, the player is able to more easily and successfully negotiate within the storyworld, and is thereby more likely to reach a positive ending. Bettering one’s character is the precondition for succeeding within the fictional universe of Webster’s text. Since *Lost in Austen* is a rather

107 The ‘vita chambers’ in *Bioshock* fulfil such a revivifying function, for example. The mechanism of resurrection poses a conspicuous problem regarding the continuity of the storyworld in video games, as this is a clearly unrealistic feature going against the rules of most storyworlds. *Bioshock*’s vita chambers are an attempt to legitimize this process within the storyworld itself.

108 Indeed, all ‘wrong’ choices in CYOA narratives implement story closure and thus present ‘dead ends’, even if the player-character does not effectually suffer a lethal blow.

recent example of gamebooks in print, it seems logical that it would display even more concrete affinities to digital gaming than early variants from the 1980s, and a detailed analysis of another contemporary CYOA, *Into the Hollow Earth* from 2008, will support the hypothesis that, of late, gamebooks have taken up important aspects of computer games such as moral choice, character complexity, and cumulative storyworlds.

Returning to the issue of agency, we can note that it holds a more problematical status in the CYOA format than is initially suggested by the ludic nature of gamebooks and the high degree of consequence their arborescent structure propagates. Since these books are constructed in a decidedly teleological fashion, the goal of any run is pre-set from the start: the narrative usually clearly distinguishes between 'good' and 'bad' choices as well as between 'desirable' and 'undesirable' outcomes, thus establishing a clear dichotomy of winning versus losing. Choose-Your-Own-Adventure narratives present themselves as aleatoric games to be played and won. The reaching of definitive closure (whether positive or negative) is thus an integral part of every CYOA-experience. The initial multiplicity of possibilities is reduced to a single 'correct' possibility at the end of the run, and the reader must reach this possibility in order to experience a satisfying reading. Indeed, Ryan has described the act of reading these gamebooks as performing a type of reverse causality, as the reader "reenacts prospectively the causal reasoning that has been written into the design of the game." (*Virtual Reality* 245) That is, the navigational process through the nodal structure is carried out in order to "discover the plan set up by the system" (*ibid.*) and, indeed, many CYOA-books are conceived so schematically that the suspicion arises whether some of them may not actually be *composed* 'backwards' as well, starting from the ending and fanning out to different possibilities leading to more possibilities. This may do injustice to the genre as a whole, which has spawned some innovative experiments with multipath reading, but particularly the early books of the series are clearly more interested in generating a multiplicity of mechanically ordered choices and outcomes than in implementing choice situations that effect truly open reading experiences.

The sense of agency the reader perceives while moving through the textual structure is thus compromised by the inflexible arborescent organization of the narrative that generates a teleological rather than an explorative reading mechanism; indeed, Ryan has observed that the rigid tree structure of the format "enables the designer to maintain a strict control over the linear sequence of events." ("Beyond Myth") The reader will most likely perceive this notion of control, as she is continually required to yield to the binary mechanism superimposed on the storyworld. This means that the reader is only free to move within the boundaries of already delineated paths: she "cannot cause the plot to go in any directions

that weren't pre-defined and pre-scripted by the writer. Users quickly bump up against the limits of the fixed plot structure and feel they have no real choices." (Stern)¹⁰⁹ Though this adherence to a preconceived frame is, of course, a necessary constituent of all FNs, as even the most open forms of emergent textuality ('sandbox' computer or alternate reality games, for instance) require a scripted deep-structure, it is felt more acutely in strictly binary tree diagrams than in more complex, networked configurations. Indeed, one might even say that the reader 'bumps against' the limitations of the printed medium here. CYOA is an interesting example for NAFU in many ways, and will repeatedly be considered in the context of this study, but what this genre, despite its advertisements that 'you' are the hero of your own story, certainly does not foster is the experience of freedom or an open storyworld.

Regarding choice information, gamebooks operate with *half-informed* choices, as the immediate consequence of a given decision within a CYOA-narrative is usually made explicit at the point of choosing, while the wider implications of a decision may remain hidden to the reader until later in the narrative – indeed, the long-term results of a choice are often deliberately veiled to generate suspense. The granting of a certain amount of information at the point of choosing makes the CYOA-genre markedly different from the text format that it is often regarded a structural predecessor of – hypertextual narrative. Here, the options come with no information with regard to consequence, as the reader is urged to wander and explore the textual architecture without a clear ending point in mind (and indeed, definitive closure is usually lacking in hyperfiction). Again, the teleologically oriented nature of Choose-Your-Own-Adventure narratives surfaces within its design; non-reversibility and non-circularity make every single choice of the reader weighty with consequentiality, and because of this, some information about the possible choice results is necessary to enable a meaningful decision process. Even so, the experience of reading a CYOA gamebook is often characterized by having picked the wrong path; the reader/player can only resolve this dilemma by breaking the narrative line, returning to prior nodes, and choosing a different option.¹¹⁰ In fact, this mechanism of re-trying is deeply inherent in the reading performance of CYOA, as "[a]lmost everyone who

109 Ryan notes in this context that "[t]he system designer must be able to foresee the possible actions of the user and to streamline them toward the desired effect. The user should progress under the impression that his actions determine the course of the plot, when in fact his choices are set up by the system as a function of the effect to be reached" (*Virtual Reality* 247).

110 Also see Miller on this motion of re-starting: "wrong choices are often punished by ending the narrative prematurely and one must make a series of correct choices to get the narrative to a satisfying conclusion (though when this has been reached, readers will typically go back through the book and check out all the possible paths not taken)."

reads these books goes back to the beginning after reaching an ending, wondering what would have happened differently if they had made other decisions” (S. Lodge), and readers must take into account prior mistakes in order to optimize their performance.¹¹¹ The clear judgements that the text itself passes on its individual ending points – often, a wrong choice will be explicitly thematized by the game master – leaves little room for creative or exploratory readings. It could even be argued that these narratives, despite their continuation-by-choice structure, present a rather deterministic world view, as the schematic arrangement of the branching structure suggests an ultimately linear progression towards a fixed end point – this indicates to the reader that her individual choices might not possess much world-altering power after all. The apparent empowerment of the reader within decision situations is thus ironically contrasted by the unyielding mechanisms that the narrative structure of the CYOA-genre entails. While it has been claimed that Choose-Your-Own-Adventure books actually permit the reader greater freedom in adapting to the situations presented in the narrative – after all, “if she does not like how the action is going, she can change it, with a different choice” (Angileri 70) – the restrictively binary structure of these books allows for far less imaginative autonomy than is initially suggested by their nodal design.

Choose-Your-Own-Adventure uses the second-person narrative mode to counteract the constrictions that the stringent arrangement of its choice situations and continuations effects. The use of ‘you’ heightens the potential of cognitive identification that the reader feels toward the protagonist, simulating the ‘direct’ experience and manipulation of events through personal choice:

[...] this was the seductive quality of the cyoa [sic!] books: though your actions were limited to the often vexing choices offered to you, there was actual uncertainty as to how things would play out, and direct feedback based on your decisions. Even down to their use of the second person, *the books were clearly speaking to you*, not just to an outside-the-fourth-wall audience experiencing the book passively. (Swinehart; emphasis added)

The transformation from ‘passive’ reader (in the sense of an interaction with the text that is limited to cognitive responses of the reader only) to ‘active’ player is thus advanced by the genre’s employment of the second-person pronoun, which seemingly collapses the mediating narratorial interface between text and reader. The aspect of narrative mediation is limited to the nodal situations themselves, in

111 See Cover, who argues that “it is unlikely that a reader who makes an unsatisfactory ending will put down the book and not return. If all endings were equally satisfying, then this sort of backtracking might not occur, but in actuality, only a handful of endings pass as satisfactory. Others [...] clearly indicate that the reader has taken a wrong turn from the correct storyline” (26–27).

which the reader is commanded by an extradiegetic game master's voice to carry out a certain action (i.e., 'turn to page x or y'). At these points in the narrative, the text breaks through the immersive state created by the second-person narrative pronoun and exposes its rule structure, which is, like the game master presenting it, not part of the storyworld itself. The actual cognitive experience of the storyworld is offered from the protagonist's perspective inside this world, which Aarseth has termed the "personal perspective", as the text "requires the user to play a strategic role as a character in the world described by the text" (Cyber-text 63), and this is another clear signal of CYOA-narratives' status as predecessors of computer games, which also equate the player with the protagonist of the story, creating an identificatory unity. While the textual form of CYOA-books lacks the visual and perspectival immersivity of digital gaming, the heavily stressed 'you' of these texts serves as the primary tool of ludic immersion – it makes the player *want* to actively engage with the situations she experiences 'as' protagonist, as "[i]magination is unleashed, ego becomes involved, [and] participation is unavoidable." (Montgomery)¹¹² We can thus speak of *narrative* immersion within this genre, contrasting it with the *visual* immersion generated by advanced computer gaming. Though Choose-Your-Own-Adventure narratives are limited structurally by the printed format and are thus somewhat artificial forms of participatory narrative, they do undeniably generate a ludic state of mind. In this, any reader of a Choose-Your-Own-Adventure book is an emblematic player of FNs.

4.4 Text as Play: Games, Combinatorics, Multimodality

This close relation of FNs to game structures, just demonstrated with respect to the CYOA genre, is prompted by the reliance of such texts on a rule system (included in the architecture of FNs) which enables individual performances (or runs) of this architecture. As "[r]ules, arguably, are the most defining characteristic of games", being "the element shared by everything we usually understand as a game" (Eggenfeld-Nielsen, Smith, and Tosca 99) – indeed, it would be very difficult to imagine a game that did not employ any rules at all – the status of FNs as narrative engines based on specific rules assigns them the status of games. While such an equation of narrative and games may initially seem problemati-

¹¹² Angileri reads the close alignment between reader and protagonist as a cognitive experience of possessing an 'alter ego' and argues that "the reader, once she has figured out what type of person the imaginary protagonist seems to be or what types of choices tend to bring success in this fictional world, would follow along choosing automatically the most logical or probable response each time" (70).

cal (and evokes echoes of the old ‘narratology vs. ludology’ debate in computer game studies),¹¹³ future narrative’s unique continuation-by-choice format, where the development of the story is directly dependent on reader/player input and interactivity, discloses this genre as *narrative which creates a ludic experience*. In this sense, talking about *game novels* as sub-species within the textual FN typology may evoke the suspicion of redundancy, but what sets these texts apart is that they contain a *thematic focus* on gameplay besides structurally mimicking aleatoric mechanisms in some way. That is, they employ formalized game mechanisms rather than just generally inducing play through the presentation of different possibilities. Like forking-path narratives, they fuse formal multiplicity with semantic content, impersonating the very structure they employ to afford a narrative experience. A very different type of game is offered to the reader in multimodal novels, which tempt the reader with atypical reading strategies by contrasting text and image, text and diagram, text and drawing – or text and text.

4.4.1 Game Novels and Combinatorics

Configuring a novel as a game, or inscribing ludic strategies into its formal makeup, is a principal means of functionalizing multi-linearity in a printed text, for the insertion of gaming mechanisms within a narrative structure almost automatically steers the text away from stringent uni-linearity and toward the generation of multiple narrative possibilities.¹¹⁴ As Ryan has noted,

113 The two opposing positions revolve around the question of whether games are a form of narrative, or whether they must be viewed and analyzed as a category separate from narratological convention. While narratologists such as Janet Murray argue that games can indeed be conceptualized and evaluated with the help of narratological tools and models – that games, to put it more simply, are merely another way of telling a story and can “be read as texts that offer interpretations of experience” (Murray, *Hamlet* 143) –, ludologists such as Markku Eskelinen position themselves distinctly against using theoretical concepts of narrative in order to assess game structures, which should, according to the ludological perspective, be evaluated on their own terms. Indeed, as Eskelinen famously and somewhat polemically maintains: “If I throw a ball at you I don’t expect you to drop it and wait until it starts telling stories.” (“Gaming Situation”) Aarseth regards the application of naratology to the study of gameplay as a mere compromise: “Narrative theory [...] seems to be used because there is nothing better to use, not because it fits particularly well”, and argues that describing games in narrative terms denies them their unique status as ludic artefacts: “When games are analyzed as stories, both their difference from stories and their intrinsic qualities become all but impossible to understand.” (“Quest Games” 362) Also see *Narrating Futures* Vol.1, 1.15 for an extended discussion of these positions.

114 Some critics have argued that all literary texts could generally be regarded as games, because they “follow from certain assumptions (which, with more or less precision, one may call

[t]he conception of meaning associated with the game metaphor can also be described as the product of a field of energies. Meaning is not a preformed representation encoded in words and in need of decipherment but something that emerges out of the text in unpredictable patterns as the reader follows trails of associative connotations or attends to the resonance of words and images with the private contents of memory. This operation is like following links on the Internet: surfing the surface, remaining in perpetual motion. (*Virtual Reality* 193)

That is, narratives featuring game-structures gesture toward the emergence of spontaneous possibility from a certain rule set rather than presenting conclusive results of one given series of parameters. Many different types of texts that employ game mechanisms exist, and texts posing as games play with the game-structure in various ways and are modelled after very diverse game formats. Narratives that adopt a specific formalized game as their architecture can be considered to belong to Callois' class of *ludus* in the sense of being structured activities underlying explicit rules (cf. Callois 13); such ludic novels are a unique combination of designated rules and playfully created narrative content that imitates combinatory possibility. Game novels can, for example, mimic a card game (as is done in Italo Calvino's *The Castle of Crossed Destinies*); they can be written as a crossword puzzle (see Milorad Pavic, *Landscape Painted with Tea*), be constructed like a children's game (as is Julio Cortázar's *Hopscotch*) or feature an aleatoric topology (Alain Robbe-Grillet's *In the Labyrinth*, for example). What all these novels-as-games, which Ryan has designated as 'metaphorical interpretations' of games (cf. *Virtual Reality* 180) where the text is "a verbal transposition of the structure of a nonverbal game" (*ibid.*), have in common is their fusing of the elements of chance and luck with a specific rule system, as well as their focus on the possibility of dif-

'rules' or 'axioms') that are not necessarily those of the outside-the-text world. The axioms of a fictional, or 'possible', world may be said to correspond to those of a game [...] in that they restrict what may happen, delimit action, and make certain other things (characters, events or moves) possible with a disregard for what may be the case outside the fiction." (Wilson 184) Also compare Morrisette: "If, as Hjelmsev declares, language itself is 'put together like a game', with a large but finite number of underlying structures that permit the vast repertory of combinations representing the totality of actual practice or usage in all given cases, then by the principle of analogous extension all fiction may be said to be put together like a game, with each specific story or novel constituting merely one of the possible *parties* or individual playings of the game of fictional composition." (160) However, as Morrisette also notes, such an equation of narrative and game makes little sense when specifically regarding game structures in novels. For the purpose of this study, likewise, only such novels that openly flaunt ludic elements and/or conventions will be categorized as game novels; these texts position themselves as structurally multiple and open, their narrative outcome determined by the individual reader/player.

ferent combinatorial strategies to create individual textual experiences.¹¹⁵ They may even privilege actual gaming objects (such as playing cards) over the written text, as Calvino remarks in a note on *Castle of Crossed Destinies*: “This book is made first of pictures – the tarot playing cards – and secondly of written words. Through the sequence of the pictures stories are told, which the written word tries to reconstruct and interpret.” (116) This emphasizes the importance of formalized ludic structures in game novels, which transfer these structures onto textual artefacts in a very literal way, combining individual reader/player agency with the factor of chance to produce genuinely open narrative content. Structural multiplicity is achieved by the possibility of (re)arranging the individual parts into different patterns, creating new narratives in a decidedly playful manner, and with the reader in the position of player and/or game master. In *The Castle of Crossed Destinies*, to return to Calvino, the author realizes that “the tarots [are] a machine for constructing stories” (119) – a phrase that also applies rather precisely to FNs in general, where the reader can ‘construct’ different stories by engaging with the nodal architecture. Nodal situations in game novels surface as opportunities of engaging with a rule system to generate narrative, the text presenting its story content as not holistically closed, but open to the play of a recipient: the nodal situation is the invitation to play the text ‘this’ or ‘that’ way. Milorad Pavic’s *Landscape Painted With Tea*, for instance, offers the reader two visual representations of a crossword puzzle, one “for those who wish to read this novel, or crossword, across” and the other “for those who wish to read this novel, or crossword, down” (100–101); the reader as player can then choose which arrangement she prefers (across or down), and move through the text accordingly. In *Hopscotch*, similarly, the reader is given the choice of reading the novel in a ‘normal’, that is, sequential, fashion or jumping around in its structure, hopscotch-style. The decision to play the text one way or another does not primarily affect the storyworld as such, but makes for an entirely different reading experience, and highlights the issue of reader/player choice as the central motor behind the generation of story content.

¹¹⁵ Ryan differentiates between literal, metonymical and metaphorical game texts (cf. *Virtual Reality* 179). Literary games in the literal sense include “folklore or literary genres regulated by fixed formal constraints, such as rhymes, puns, anagrams, acrostics, palindromes, or the secret language invented by children”, while metonymic games effect “the manipulation of the text by the reader [...] [through] a mechanism borrowed from a standard type of game, such as throwing dicelike objects [...], shuffling cards [...], or even clicking with a mouse on the links of a hypertextual network [...]”. Metaphorical literary games are the closest thing to mimicking specific formal games in literature; Ryan also calls these “texts explicitly patterned after a game” (180).

Game novels, therefore, catapult the reader/player into the active state of engendering narrative through aleatoric performance.¹¹⁶ Whether they offer a choice of reading strategies to the recipient (a choice between ‘conventional’ or ‘ludic’ strategies, that is) or enforce a ludic engagement with the text, they necessarily demand a heightened degree of engagement from the reader/player, as they must be played or ‘performed’ in order to realize their narrative potential: a game that is not played loses its status as a game and becomes a non-actualized structure, an architecture which has no meaning beyond itself.¹¹⁷ In this, game novels reveal themselves as typical FNs, because the majority of texts within this genre depend on the actualization by an active agent (the reader, the player, or the viewer) – indeed, the differentiation between architecture, run, and protocol established in Chapter 3.3 explicitly acknowledges the fact that any FN which enables the reader/player to participate (such as CYOA gamebooks, unbound texts, digital narrative, and gaming) is only present *as potential* until this reader/player begins to perform a navigation through the nodal structure. Because of this necessity of ludic engagement, narratives that structurally depend on gameplay are often heavily self-referential, as “in order to function as game, play must draw attention to itself. [...] The game element [...] breaks away from the norm of realistic writing already established in a text.” (Hutchinson 12–13) In extreme cases of such self-referentiality, narratives refer to the very *medium* into which they are inscribed, trying to play with the materiality of the printed page. Such an attempt to literally ‘break through’ the physical status of hard-copy artefacts is the *cut-up technique*, introduced by William C. Burroughs and Bryon Gysin around 1960. In this mode of literary play, a text is divided into segments and cut up to be rearranged in a new manner. The intrusion into the textual sequence, and the resulting enforcement of multi-linearity, is thus a manifestly physical one, which could even be read as an act of (creative) destruction. Cut-up turns the narrative into a many-pieced collage for which there is no one determinate patterning; uni-linear reading strategies are explicitly and tangibly rejected in search of a combinatorial and performative mode of playing (with) a text. As Batt has claimed, the aspect of performativity simply cannot be ignored in variants of cut-up (cf. 115); he terms cut-up “un texte-représentation et un texte-action” (*ibid.*) and thus assigns this text form a double status as representational artefact and dynamic operation.

116 See Hutchinson: “Playful writing demands a different sort of effort from the reader than does standard prose. This, then, may be seen as another feature of literary play: it is provocative, seeking to arouse speculation, reflection or deduction” (13).

117 In this, game novels (and, by extension, all FNs) strongly differ from conventional novels, the latter of which are ‘realized’ in a physical sense even without the interaction of the reader (though, of course, only the individual reader grants a concrete meaning to the narrative).

The primary factor within a cut-up performance is chance, as haphazard choice becomes the deciding principle behind literary creation: “Cut-ups emphasize the randomness of life.” (Weinreich 56) Cut-up is a variant of the shuffling mechanism, and the nodal situation is constituted by the possibility of rearranging the textual bits in different orders. Since there are rarely specified rules relating to this rearrangement, cut-up texts achieve a very high level of combinatorial freedom; at the same time, the self-referentiality of playing with the medium itself hinders the creation of meaningful narrative content. Association rather than causality becomes the deciding principle: “Wrested from the restrictions of the linear sentence, and thus free of cause-and-effect, the word conjures a variety of mind associations, dynamic *déjà vu*.” (*ibid.*) This associative mechanism links cut-up to digitality, to those hyperfictions which function according to a similar process of association.

The cut-up technique is only one variant of what is commonly referred to as *combinatorial literature*, a sub-genre of game texts that transfer the mathematical concept of combinatorics onto their overall structure. The French literary group of *Oulipo* is generally credited with the creation and development of such combinatorial literature; their idea of *littérature potentielle* focuses on the combinatorial potentiality of literary texts and associates them with mathematical operations. By imposing formal constraints on their writing, Oulipian writers thus attempt to free themselves from literary convention and to create works which are paradoxically both ‘open’ (in the sense of generating ever new combinations and possibilities) and ‘restricted’ (by the rule system applied to a particular textual operation) at the same time. One prominent example for this type of literature is Raymond Queneau’s ‘sonnet machine’ *Cent mille milliards de poèmes*, in which every line of ten sonnets can be combined with any other line, creating the staggering figure of one hundred thousand billion possible poems – the total quantity of combinations being realizable only as a thought experiments, since their number is far too high for any one player to perform in a single sitting (or, indeed, in a whole lifetime): the text confronts the reader with an overwhelming surplus of possibility. Texts like Marc Saporta’s loose-leaf novel *Composition No.1* or B.S. Johnson’s *The Unfortunates*, whose individual chapters are bound separately and may be shuffled at will, also employ such combinatorial techniques with a high number of possible reading orders. Milorad Pavic’s encyclopaedic narrative *Dictionary of the Khazars* permits the reader to freely leap within the text structure, combining different ‘lexicon’ entries of Khazar history into one individual story: “each reader will put together the book for himself, as in a game of dominoes or cards, and, as with a mirror, he will get out of this dictionary as much as he puts into it [...]” (13). Because Pavic’s novel works by association (as is typical of dictionaries or other reference work, the reader moves from entry to entry to

deepen her understanding of the subject at hand), the reader will increase her knowledge about the Khazar world the more she moves around in the network of the text, collecting new material and perspectives as she goes along. This sort of cumulative reading is comparable to exploring the web of a hyperfiction, and unlike many other forms of combinatorics, it can indeed create a satisfying narrative experience. The *Dictionary* (which is itself an amalgamation of three different encyclopaedias) is based on the premise of knowledge rather than pure playfulness, and because of this, Pavic manages to refract history and truth into a kaleidoscope of possibility in which the reader can wander until she has satisfied her desire to connect, associate, and learn.

A strikingly innovative example of combining text and game is the impressive volume *Icon Poet*, published by the Swiss brothers Andreas, Lukas, and Ueli Frei in 2011. This large-sized, heavy book opens up to surprise the reader with a boxed set of 36 dice *inside* of its pages from which a section has been cut out to accommodate the box. Materially fusing book and game, *Icon Poet* works on the principle of combinatorial dice rolling: one reader/player has to select a fixed number of dice and throw them once, after which all participants each have three minutes to create a ‘story’ from the icons shown on the dice. To help in the generation of possible storylines, the book offers fourteen ‘scenarios’ ranging from a proposal of marriage to a murder mystery or plane crash. The combinatory possibilities contain “all the stories of this world”, as the subtitle of the book promises, and indeed, the 192 different icons on 36 dice make for a staggering number of story options. Besides being a highly inventive artefact, *Icon Poet* also testifies to the conceptualization of narrative as *potential to be activated* that surfaces in the introduction of this study: any set of icons can be turned into a narrative by semantic and linguistic linking, association, and interpretative activity of an agent (the player, in this case), and very different stories will most likely result from this activity. The game aspect of *Icon Poet* is not only reinforced by the material playing objects – the dice – but also by including the factor of time-pressure, as the players play ‘against’ an hourglass clock and must be finished with their narrative results in three minutes. This introduces the concept of *agon* into the game setup, and focuses the otherwise completely haphazard activity of dice throwing into a targeted process.¹¹⁸ *Icon Poet* proves to be unique in the category

118 A further subgenre of aleatoric literature is *generative literature*, or “the production of continuously changing literary texts by means of a specific dictionary, some set of rules and the use of algorithms” (Balpe), usually with the help of a computer. Such texts thus replace the reader as a combinatorial agent with an impersonal and optimized system of selection. The resulting manuscript is “only a temporary specimen of an infinite family of virtual texts. In concrete terms, this means that any point of the generative axis is the theoretical point of an infinity of texts.”

of printed texts by implementing temporal restriction, a phenomenon usually reserved for digital future narratives, and especially computer games.

4.4.2 The Multimodal Novel

The multimodal novel, like the aleatoric novel, invites play, but the reader must engage in a very different type of game in this text form than in the literary games presented above. Multimodal texts integrate different semiotic modes, so that text is often accompanied by non-verbal elements such as images, photographs, charts, diagrams, or maps; alternatively, different portions of text may be contrasted with each other on one and the same page by using different typographies (cf. Hallet, “Multimodal” 129).¹¹⁹ It is particularly this last variant of multimodality which is of interest to the study of future narration, because it almost automatically activates a decision situation on the part of the reader – which segment of text to read first, which later, which, perhaps, not at all?¹²⁰ Even more so than in the case of included graphical material such as images, charts, or diagrams, the juxtaposition of typographies will effect an active choice, as there may be no clear hierarchy detectable between the different portions of text, the reader having to consciously select her way ‘through’ the text.¹²¹ In Danielewski’s *House*

(*ibid.*) Since the generation of textuality is not, as in Queneau’s sonnet machine, for instance, limited to and dependent on one specific player, the potential material emerging from the generative mechanism is virtually limitless.

119 As Gibbons resumes, multimodality in texts “ranges from using pictures in a merely illustrative fashion [...] to a mediating form in which type face, type setting and images play a role in the progression of the narrative, of which *Extremely Loud and Incredibly Close* by Jonathan Safran Foer is an example. Toward the extremity of the spectrum are situated texts in which the presence of visual modality forms a more equal relationship between verbal and visual” (“Multimodal Literature” 108).

120 Arguably, the juxtaposition of different text segments could also be taken as a variant of multiperspectival narration (cf. Nünning and Nünning), but the fact that these text segments are also *visually* distinct by the use of diverse fonts, colours, etc. points to the fact that the difference between them supersedes the merely perspectival aspect. Hallet observes that “[t]ypography visualizes textual ‘difference’ and identifiable textual elements, voices, ways, styles and modes of writing, but it also represents the material side and the technologies of writing, from the fountain pen, the typewriter and book print to the digits of electronic and multimedial hypertext” (“Multimodal” 138–139).

121 This is not to say that the inclusion of images creates a less forceful effect of multimodality; as Hallet notes, “[a]ll these different symbolizations, semiotic modes, generic forms and medial representations cannot possibly be regarded as merely additional elements to an otherwise verbal narrative text.” (“Multimodal” 139) That is, multimodal novels themselves may not explicitly privilege text over image; this is, indeed, one of their central features, as “non-narrative

of *Leaves*, for instance, different type fonts are used along with colouring and other visual markings, such as boxes around text or text that runs upside-down or back-to-front, to display multiple textual segments on a single page – the reader is faced with these segments, which underlie no visible hierarchy, and must necessarily decide on how to prioritize and read them on her own: “The multiple levels of narrative can be viewed as paths to be trodden by the reader as he or she chooses.” (Hamilton 12) Though there are usually no marked nodes in multimodal narratives (in the sense of ‘make a decision here’), and no instructions on how to play, multimodal novels offer the reader nodal situations by presenting different materials which can be encountered and received in different orders. That is, every page on which different semiotic modes interact is an invitation to read the text ‘as’ a FN, to explore it along different pathways, creating different reading experiences or run-throughs from a fixed architecture. Hallet has described multimodal novels as offering “user-generated reading and viewing paths” (“Rise”), and these paths are not pre-set, but can be selected by the reader at will. Reading, in multimodal texts, becomes a “multiliterate act” (*ibid.*); readers must negotiate the different visual modes and cannot evade choosing an individual route through the textual whole, as it is physically impossible to take in all elements at once.¹²² The decision mechanism generated by multimodality is thus one of tracking paths through a text which offers a *surplus* of input by integrating multiple modes of meaning into one page. In radical contrast to other printed future narratives, multimodal texts do not function on the principle of visually withholding information until a decision has been made – in Choose-Your-Own-Adventure books, for example, the reader will only encounter the result of her choice *after* she has turned the page – but present all possibilities, all potential consequences at once. A yearning for what is still to come, found in most bifurcating printed and electronic texts within the future narrative genre, is here substituted by the co-presence of possibilities; these possibilities for continuation coexist graphically instead of being spread through the narrative at various points.

Hallet has argued that the rise of the multimodal novel can be seen as an effect of a series of paradigmatic shifts including a move from monomodality toward hypertextuality, from single to collaborative authorship, and from the

modes must be read as integral parts of the narrative discourse.” (*ibid.*) However, in the context of generating decision situations, I argue that print versus print will more openly trigger a choice mechanism than print versus image, simply because the latter variety is more common and will thus not be perceived as disruptively as the former.

122 Walsh has commented on the choice situation that the multimodal novel engenders: “The image is there at once and fills the page. Do the reader’s understandings and responses all happen holistically and simultaneously? How do we know what part of the picture the reader’s eyes go to first and in what order? What is the reading path?”

concept of reader to that of (interactive) user (cf. “Multimodal” 150).¹²³ In this sense, it is a perfect example for the fact that the generation of multiple reading paths is a phenomenon not limited to the digital realm; while, as Chapter 3.1 has demonstrated, such formal multiplicity is more easily implemented in electronic fiction (due, first and foremost, of the linked structure of digitality), the hyper-textualization of the literary realm has affected the bound book, as well. In fact, multimodality is not something that is even restricted to aesthetic artefacts – as Gibbons has argued, it is “the experience of living; we experience everyday life in multimodal terms through sight, sound, movement.” (“Multimodal Literature” 110) Movement, indeed, is one of the central factors within the receptive engagement process with multimodal texts, which often trigger a decidedly material engagement with the book.¹²⁴ Such a material dimension is most strongly felt in texts that force the reader to actively manipulate the book they are holding in their hands in order to access the different pieces of narrative: in *House of Leaves*, for example, the reader must rotate the book in all directions to read the individual text segments; in *Only Revolutions* (also by Mark Z. Danielewski and published in 2006), she must flip the book on its head to read its second half (or first half, depending on where she starts). Such narratives self-referentially point to their own physicality, and the reading experience becomes more than just visually tracing sequential lines, it becomes a “mimetic representation of movement” (Hallet, “Multimodal” 138), a physical performance in which the material status of the book is continually brought to the attention of the reader: “Multimodal printed literature [...] not only moves us figuratively speaking, it literally makes us move.” (Gibbons, “Multimodal Literature” 121) In this way, multimodal novels attempt to transcend the limitations of the bound book’s materiality, which is not as fluid and flexible as digital narrative content can be; by turning the book into an object which can be physically manipulated to retrieve output, the multimodal text “emphasise[s] its status as a material artefact with which the reader interacts” (*ibid.*) and ironically comments upon its own condition as an object of play. While all hard-copy multi-linear future narratives elicit an engagement with the nodal structure that is more physical than the abstract pointing-and-clicking-mechanism of electronic texts (for example, the flipping of leaves in books), mul-

123 This is not to say, however, that multimodality in literary fiction is a wholly new phenomenon; as Gibbons (“Multimodal Literature” 107–108) has maintained, “The practice is long standing. For instance, one need only think of William Blake’s ‘illuminated printing’ in the 18th century, and even this has many precedents.” Sterne’s *Tristram Shandy* would also have to be included in the category of multimodality. Still, there has been a noticeable increase in *textually* multimodal writing over the last years, as found in the œuvre of Mark Z. Danielewski, for example.

124 Gibbons maintains that multimodal novels “often exploit the tactile and material dimensions of the book itself” (“Multimodal Printed Literature”).

timodal narratives such as *House of Leaves* carry this engagement to an extreme. The reader is ‘active’ here in a very literal sense, and she must recognize the text as object in order to manoeuvre its offerings of multiple reading possibilities. It is, perhaps, fitting that the survey of printed FNs should end with such a decidedly physical reading strategy, reminding us once more of the status of bound pages as objects that hamper the effortless execution of formally open, multipath story structures. As we step into the realm of digital textuality, this resistance yields to the implementation of multi-linearity into the very makeup of the text; the format of linked electronic content not only lends itself to creating different reading paths through the textual architecture, it in fact necessitates the navigation of these paths to bring a story into view at all.

4.5 Moving Into the Electronic Medium: Digital Multiplicity

While print narratives have repeatedly tapped into the potential of multipath narration and readerly agency, nodal situations in the book remain, as has been extensively discussed within this study, an aberration from the norm.¹²⁵ The move into the electronic medium significantly facilitates the implementation of dynamic interactivity which can be considered to be one of the central factors of future narration and thus transcends what Aarseth has termed “the problems of practicality faced by nonliterary hypertext” (*Cybertext* 77); that is, digital narratives are based on a system which requires, rather than hampers, the generation of decision situations within the reading process.¹²⁶ Electronic narratives generally *depend on* the active participation of the reader in the sense that they cannot be read unless the reader engages with the link-and-node structure by typing commands or clicking her way through the text. Combinatorial engagement is

¹²⁵ Indeed, Ryan argues that such texts actually “anticipat[e] the possibilities of electronic textuality. Here we can say that the text *yearns for another medium* – one that will ‘remediate’ (in Bolter’s and Grusin’s terms) the limitations of its own medium.” (*Avatars* 30; emphasis added) Aarseth observes that “nonlinear text types perform more effectively on a computer system than on paper [...]” (*Cybertext* 46), but cautions against generalizing this absolutely: “A hypertext path with only one (unidirectional) link between text chunks is much more authoritarian and limiting than (say) a detective novel, in which the reader is free to read the ending at any time.” (47) However, it could be argued that reading the ending prematurely is *stepping outside of the script*, a breaking of the rules that is not part of the actual setup of the text.

¹²⁶ As Ryan notes, “interactivity is more fully developed in an electronic than in a print environment [...]” (*Virtual Reality* 214).

therefore an integral part of the experience of digital storytelling.¹²⁷ The reader of a digital narrative “determines the unfolding of the text” (Ryan, *Virtual Reality* 5) by her participatory interactivity; the text is not ‘there’ in a visual sense unless it is actualized by an active agent (the double status of electronic text as code and visible content shall be considered a bit later in this chapter). Of course, such constitutive agency is most relevant for texts which are *written for* the electronic realm, texts which Wardrip-Fruin terms “computationally variable” (“Five Elements” 41) and which he contrasts with “computationally fixed” narratives, i.e., narratives that are present in the digital format but stem from print textuality (digitalized novels on *Kindle* or *Google Books*, for example) and can be read, but not actively performed, on the computer screen.¹²⁸ The former category can be seen as belonging to the genre of FNs, with its inherent aspects of multi-linearity, fragmentation, emergence, and nodal configuration. Indeed, interactive digital texts are the most advanced form of textual future narration (leaving aside more openly performative FNs such as ARGs); they offer continuations as a structural necessity, being ‘open’ to radically different encounters by different readers, and are thus characterized by a temporally dynamic emergence not accessible to hard-copy multi-linearity.

4.5.1 Interactive Fiction

Interactive fiction (IF)¹²⁹ is situated on the gradient between digital storytelling and computer gaming, requiring textual input in order for the reader/player to advance through the narrative architecture and thus successfully ‘solve’ the game.¹³⁰ The player of an IF types in commands (usually, since this is an early

127 Ryan maintains that “[e]rgodic design and sensitivity to user input (i.e., interactivity proper) may not be unique to digital texts, but the strongest manifestations of interactive textuality are those that implement these two dimensions in an electronic environment” (*Virtual Reality* 207).

128 Also see Sanz and Romero on this point: “a virtual text is not created for paper but for the screen [...]” (8–9).

129 Seegert notes that “‘IF’ is a fitting acronym for interactive fiction, for IF is ideally all about possibility— the realm of ‘what if?’” For a critical evaluation of the term interactive fiction, see Aarseth (*Cybertext* 48–51).

130 Though the term interactive fiction is sometimes also used to refer to non-digital forms of interactive narrative, such as role-playing games or interactive print novels, it is employed here to designate electronic forms of participatory, text-based fiction; this is, indeed, the most common usage of the term. Interactive fictions are also referred to as text adventures, distinguishing them from other types of adventure games which use graphics or sound effects. Montfort (*Twisty Little Passages* 6), however, notes that “[n]ot all interactive fiction works [...] are text adventures”, naming the detective mystery Mark Blank’s *Deadline* (1982) as an example of the

form of computer interaction, these consist of very simple instructions such as ‘n’ for ‘go north’), which, if recognized by the system, will provide access to the next step in the game sequence, yielding a new block of text. Engaging with an interactive fiction is thus a collaborative narrative performance of text and reader; Montfort has identified this format as “potential narrative, a space of possibility in which the user’s inputs, parsed as actions, become part of a narrative text.” (“Interactive Fiction” 311)¹³¹ What sets this variant of FNs apart from other forms of choose-your-own-path texts in the hard-copy and digital formats is that the input which the user feeds into the system goes beyond simply selecting a new link within a nodal situation; in IF, the player interacts with the system via a natural language interface (cf. Montfort, “Interactive Fiction” 316) and thus *actively supplies* narrative content: “The interactor [...] is actually contributing writing that is part of the text and serves to operate the program, causing it to produce additional text that is interleaved with that of the interactor and meaningfully responds to it.” (Montfort, *Twisty Little Passages* 4–5)¹³² The user can potentially type in a limitless amount of words or phrases, although if these terms are not part of the scripted system, they will not be effective in furthering the story.¹³³ Still, this type of interactivity requires a more resourceful user engagement than, for instance, hypertextual writing, especially if the player does not know all the commands from the start and must try out which commands yield to new text chunks (indeed, this activity of ‘trying out’ is what generates a large part of the suspense, but also of the frustration experienced when engaging with an IF). The action of typing commands also suggests a more direct process of communication with the text, establishing a quasi-dialogical situation, as the system will directly respond to the user’s input, informing her whether the command

non-adventure type. In this definition, ‘adventure’ is used in the somewhat restrictive sense of “a player character who sets out on out-of-the-ordinary undertakings involving risk or danger” (*ibid.*), though it seems artificial to divide *mystery* detective plots and other types of out-of-the-ordinary adventures in this sense.

131 The similarities between IF and print narrative were explicitly used as a marketing strategy during the early days of the genre; one advertisement for Interactive Fiction by Infocom, for example, promises that “For the first time, you can be more than the passive reader” and shows an open book on the pages of which a trapdoor opens down into a mysteriously lit cavern (cf. Keller 283).

132 Or, as IF writer Johan Herrenberg puts it, “It’s very easy to go on to the next page with hypertext, but that kind of clickable answer will rarely suffice with IF – to see the next page you have to earn it” (qtd. in Keller 292).

133 Murray has criticized this use of natural language for its raising of exaggerated expectations concerning the amount of possible user input: “the use of commands drawn from natural language runs the risk of raising the interactor’s expectations of what can be expressed, while severely limiting their actual expressiveness” (“Online Response”).

chosen is appropriate to advance the plot, and anticipating a new response signalled by the flashing of the cursor.¹³⁴ The player is addressed as ‘you’ by the game and gives her commands in a “sort of pidgin second person imperative, as if the program were the character.” (Giner-Sorolla) The beginning of Andrew Plotkin’s 1998 interactive fiction *Spider and Web*, for instance, presents the player with a “plain metal door [which] faces you to the east, near the alley’s end. It’s firmly shut.” The command “open door” triggers the response “You can’t see how”, providing immediate feedback that the player does not yet have the means to perform this action (i.e., she has not obtained a key or any other device to open the door). The attempt to climb over the door is also discouraged at once; the output generated by this attempt reads “I don’t think much is to be achieved by that.” Such ironic undertones, even open criticism, can be found quite regularly in the textual responses generated by player input and serve to establish a sense of distance between the player as ‘you’ and the game’s rule system presented by the voice of a ‘game master’.¹³⁵ That is, the above suggestion of dialogicity between text and player does not transform these two instances into any kind of mutual or hierarchically equal communicative partners. As Smith has aptly put it, reproaches by the game system “communicat[e]: ‘Stay within the framework of the fantasy genre or be ridiculed’ thus ensuring that the interactor will not wander aimlessly outside the range of anticipated actions.” The player is clearly subordinate to this system and must continually attempt to adapt to its requirements in order to create positive outcomes within its hierarchical structure. That is, the game does not only implement its rules by presenting the user with different options, but also exposes these rules by actively commenting upon wrong or ineffectual decisions of the player. Such meta-commentary directly counteracts the immersion of the player into the world of the game, as she is thereby reminded of the status of this world *as* game; indeed, Giner-Sorolla has convincingly argued that interactive fiction often subordinates the fictional coherence of the storyworld to the systematic advancement of gameplay, and clearly stating the rules or consequences of player actions certainly contributes to this effect of privileging formal system over fictional world.¹³⁶

134 Murray has also identified interactive fiction as a form of conversation: “It is a conversation with the author of the imaginary world, who is challenging the interactor to solve the puzzle, to figure out what the author has in mind, to debug their own interactive processes, repeating the sequences until the desired ending is reached” (“Online Response”).

135 Indeed, this display of extradiegetic irony has caused even early players of interactive fiction to test the responses of the system to clearly foolish or nonsensical input (cf. Murray, *Hamlet 77*).

136 Nonetheless, the world-creating mechanism is central to interactive fiction, as Montfort has noted: “a system is not IF unless it simulates a world, however erratically and in however limited a way” (“Interactive Fiction”).

The objective of the player in interactive fiction thus consists of figuring out the specific vocabulary and grammar of the game, creating a cognitive map of the storyworld and its parameters as she explores it by using the appropriate command language. Mind-mapping is an integral part of the playing experience generated by this format; the player must continually ‘keep track’ both of the list of usable commands and of her paths through the storyworld in order to stay oriented and gradually obtain an overview of this world’s geography. We have identified spatiality as an integral part of FN’s textual status, and interactive fiction is one variant of the genre that very directly employs spatial concepts in order to connect player decision making with the overall textual architecture.¹³⁷ The player not only traverses this architecture and rule system of the narrative, but also performs a navigation through the storyworld’s topography, which often includes intricate caves, labyrinthine passages, and multi-level buildings. Since this topography is not represented visually, the player will inevitably have to (re-)construct it in her mind – IF generates cognitive world-creation. In this context, it also very directly triggers the ‘putting on the backburner principle’ during any run, as the player must mentally store previously visited points and travelled paths in order to assemble a mental map and compare the desirability and feasibility of different routes to each other, thereby optimizing her navigation through the storyworld and through the puzzles it presents.¹³⁸ Establishing the spatial relations and patterns within the storyworld in order to maintain orientation is reminiscent of labyrinthine experiences, and, indeed, interactive fictions can be linked both to the motif of the labyrinth and to that of the quest: “The adventure maze embodies a classic fairy-tale narrative of danger and salvation. Its lasting appeal as both a story and a game pattern derives from the melding of a cognitive problem (finding the path) with an emotionally symbolic pattern (facing what is frightening and unknown).” (Murray, *Hamlet* 130) Both of these aspects, the cognitive and the emotional, are highly pertinent to the player’s encounter of an interactive fiction, and so this genre functionalizes both feasibility and desirability as major factors within the decision matrix of a text, constantly calling the player to evaluate and re-shift the mental map she has created of the storyworld and its rule system. IFs, despite their lack of graphics, create highly involving spatial experiences that rival those of visual media such as the computer game: “Even in

¹³⁷ Also see Murray: “This power of the computer to create navigable space is one of its most expressive affordances, and text-based environments have provided some of the most magical experiences of this representational power” (“Online Response”).

¹³⁸ See Kelley, who describes the process of mental mapping as follows: “[The player] must make maps, keep records of where items and rooms are located, and constantly imagine how to use items he already has and what items to look for to perform necessary tasks” (56).

the absence of visual stimulation [...] a reader can, through imagination, conjure up worlds potentially as vivid and as body affecting as the visual and aural effects presented through a multi-media entertainment system” (Seegert 25) – indeed, the cognitive world-creation prompted by interactive fiction may be all the more vivid *because* the reader/player does not have the aid of visual material.

The creation of a mind map is also necessary in order to satisfy IF’s call for reaching its postulated ‘goal’: “Since most IFs are designed as adventure games, the user’s character has a task to perform, and the plot only reveals itself fully to the user who is able to complete the task by solving all the problems.” (Ryan, “Multivariant” 424) Interactive fiction, like the Choose-Your-Own-Adventure gamebook, is a highly teleological format, depending on a clear motivation to finish the game with a successful outcome, making this a variant of Callois’ category of *agon*.¹³⁹ Especially in the early years of this genre, the ‘openness’ created by its mode of storytelling was still rather restricted, since only a very limited number of commands would effects any furthering of the story at all. That is, the possibilities of interaction with the system were few, since the digital game master only recognized a low number of typed-in commands.¹⁴⁰ Though more recent IFs have significantly increased the quantity of possible input that advances the plot, and are structurally much more complex in general (the fictions of Andrew Plotkin serve as a good example here), the user is still bound to figuring out the correct commands in order to make her encounter with the storyworld successful. The player has to operate within a rigidly set structure and must access all fixated nodes in the right order determined by the architecture; she “can only perform a possible range of actions that have been anticipated by the game’s author.” (Keller 278)¹⁴¹ While, on the one hand, the player’s movement through the story-

139 Again, see Kelley: “IF, like narrative fiction, rarely escapes teleology” (53).

140 For example, Kelley describes such limited interactivity regarding ZORK: “ZORK gives the semblance of meaningful computer-player interaction, but provides none of the reality since the range of significant choices that a player can make is so small that the few true tokens of interactivity become insignificant.” (57) Early variants of IF were also directly dependent on user performance for temporal development as they “were driven by user events only, and time was measured by counting the number of user moves. If the user did nothing, time stood still.” (Aarseth, *Cybertext* 105) This designates early interactive fiction a ‘static’ medium (cf. *Narrating Futures* Vol. 4), where “temporality and movement can only enter through the activity of the user” (*ibid.* 1.1), and it surfaces clearly from this that this type of IF does not (yet) fully tap into the potential of digital storytelling (which, of course, can engender an ‘active’ medium in the sense that the temporal dimension is at least partly independent of the user).

141 The most extreme example of such restrictive optionality are the so-called ‘one-move games’ which “allo[w] the player to enter only one command, concluding the game. [...] Knowing only one move is available, but guessing that many possible moves exist, the player gets to re-explore the same moment with different outcomes” (Keller 287).

world can be classified as exploratory (relating to the activity of mind mapping described above), she is, at the same time, strongly subjected to the narrative's teleological arrangement: "In most adventure game situations, the reader's activity is very predictable. Certainly it is fair to say that it is being produced or directed by the text, within the limited freedom of the available commands." (Aarseth, *Cybertext* 106) Exploration does not serve the purpose of exhaustively reading the text, but is a kind of strategic exploration comparable, again, to traversing a labyrinth. IF playing is thus characterized by a dichotomy between freedom and constraint; that is, the player may experience a certain degree of freedom when moving within the individual story segments – exploring the storyworld architecture, picking up objects and examining them, testing various actions with regard to their viability – but this freedom is lost at transition points between segments, where the player *must* carry out a definitive set of tasks (often, even the order in which they are performed is crucial) in order to access the next story segment (cf. Kocher). Indeed, IF author Vivienne Dunstan expresses concern about this coercive transition mechanism thwarting player immersion: "Sometimes in IF there can be too much player awareness of completing each act of the story and moving to the next one. This can make the meta-level of the narrative too apparent to that player and potentially distract from the story that they are experiencing." (qtd. in Keller 292) Again, IF can be seen to expose its rules at these points, making the reader aware of the fact that she is not only immersing herself in an intricate storyworld – she is playing a textual game.

In electronic narrative, consequence generally holds an ambivalent status, as the digital format with its networked structure allows the re-tracing or re-circling of steps through the storyworld, actions which arborescent structures in print literature (such as CYOA) discourage.¹⁴² Interactive fiction proves an interesting exception in this case, because it may also be based on tree mechanisms reminiscent of hard-copy forking paths, and thus

the reader's typed response closes off other possible alternative texts, which – unless the game is re-played from the beginning – will never be uncovered. By taking one path, you abandon another, and an interesting effect of these choices is the nagging sense of 'what if?' – What if I had made another decision? (Seegert 28)

That is, consequence weighs heavily in this genre, as the wrong input may cause immediate closure by failure, or prevent long-term success because, for instance, an important object was not picked up at the correct time. Interactive fiction is

¹⁴² Of course, there are also network structures to be found in print fiction – classic examples are Cortázar's *Hopscotch* or B.S. Johnson's *The Unfortunates*.

prone to providing no information about the significance of a given action at the moment of choosing, the reader having to recognize this significance only after the fact, when it may possibly be too late.¹⁴³ The motion of backtracking steps until the respective node is reached to change the input is an integral part of the IF playing experience, and again, the usefulness of the mind map becomes apparent here, as the player must remember the path she has taken in order to backtrack successfully. Even in those IFs which enable bidirectionality by way of a network structure, the issue of consequence is of the utmost importance, because only correct choices will yield to productive navigation. Through backtracking and repetition, the player can optimize her performance, and eventually adapt to the requirements for successfully finishing the narrative. This process of retracing and repeating is especially significant for early IFs, in which there was no savegame option.¹⁴⁴ Many newer interactive fictions have, on the other hand, integrated the options of ‘save’, ‘restore’, and ‘undo’ into their rule systems. That is, the player may save her performance at a given point during the game and can restore or undo the last input. Such restartable games then yield a much lower degree of consequentiality, of course, because the “game can always be played with knowledge from a previous, failed ‘incarnation’” (Giner-Sorolla) and thus success is no longer necessarily a matter of life or death: “The task of the player is not literally to live or die as the protagonist would, but to manoeuvre the protagonist so as to ‘write’ the optimal narrative that the game author has hidden within the program, in which the protagonist does everything right and achieves a happy ending.” (*ibid.*) Restartable games may be more about optimizing player performance than encountering the absoluteness of failure through wrong input; they privilege reversibility over finality.¹⁴⁵ Such newer interactive fictions are thus also closer to video gaming, where the savegame feature has become an essential part of the rule system and prevents early failure for the sake of enabling a longer, more immersive gaming experience.

143 The degree of information at nodes ranges from virtually no information on what step to take next (i.e., you are standing in a field) to hints as to which objects may be useful or which paths may be preferable.

144 As Murray notes with respect to *Zork*, “[i]n the early versions [of *Zork*] there was no way to save a game in midplay, and therefore a mistake meant repeating the entire correct procedure from the beginning. In a way, the computer was programming the player” (*Hamlet* 77).

145 This focus on solving an interactive fiction successfully explains why “IF texts offer little incentive to re-enter their world once the game has been beaten.” (Ryan, “Multivariant” 424) Aarseth criticizes that “[t]he adventure game user cannot rely on imagination [...] alone but must deduce the nonfictive laws of the simulated world by trial and error in order to complete the game” (*Cybertext* 50).

What connects interactive fiction to other types of textual adventure narratives such as the printed gamebook is that it “allows readers to become protagonists.” (Keller 293) The active involvement of the reader *as* player in the development of plot and storyworld allows them to “find a sense of engagement in IF that is unavailable in most novels.” (*ibid.*) The ludic mindset generated by interacting with an IF aligns this narrative format both with its hard-copy predecessor, the CYOA-book, and with medially more advanced variants of gaming such as the computer game, which also furthers immersion by making the decisions of the reader/player the most crucial part of story development. A strikingly different variant of electronic textuality, albeit also based on a continuation-by-choice mechanism, is constituted by the genre of hypertext fiction, or hyperfiction, which employs the possibilities afforded by digital storytelling to abandon, rather than to enforce, orientation toward a pre-set narrative goal.¹⁴⁶ That is, hyperfiction generally evades a teleological arrangement of nodes, favouring associative reading patterns over targeted reading strategies, and is therefore often linked to the organizational concept of the rhizome, with its non-hierarchical, decentralized, and “horizontally organized root structure.” (Ensslin 11) In hyperfiction, reader/player choice serves a wholly different function, and, as will be discussed in what follows, this form of narrating the future is indeed an entirely different ballgame altogether.

4.5.2 Hypertext Fiction

Hypertext fiction transcends the limitations of implementing formal multi-linearity faced by print narrative by turning the selection of different options into the basic operating mechanism behind its textuality.¹⁴⁷ That is, hypertext does not only constitute a transfer of multi-linear structures into the digital realm, but the genre takes these structures as its most essential precondition for creating narrative experience. As has often been argued in this context, and as will again

¹⁴⁶ Aarseth rightly criticizes the alignment of interactive fiction with hyperfiction by some scholars in the field: “The term *interactive* [to describe the literary structure of hyperfiction] is particularly problematic [...]. Even so, the ideological invocation of ‘interactive fiction’ is appropriated repeatedly as a label for literary hypertexts by their proponents, who see hyperfiction as the next step up from the adventure games on the evolutionary ladder.” (*Cybertext* 88) That such an appraisal of hyperfiction as an ‘extension’ of text adventure games does not hold becomes apparent when regarding the completely different storytelling mechanisms that these two formats employ.

¹⁴⁷ Of course, a reader could theoretically refuse to select any options at all, but this would simply constitute a nonsensical reading strategy.

become clear in the discussion of hyperfictions as FNs, printed texts and digital texts are *not* the same narrative phenomenon simply refracted in different media; Ryan points out that “[a] truly digital text, or narrative, is one that cannot be transferred into the print medium without significant loss. It depends on the computer as a sustaining environment, and it uses the screen (or any other display device) as a stage for performance.” (“Multivariant” 416)¹⁴⁸ Digital textuality thus carries deeper implications for the organization of narrative content than just switching from the seemingly more ‘natural’ and tangible medium of print to the artificiality of technological composition. It means abandoning the predominant mode of uni-linearity for the sake of structural multiplicity; the electronic text is dynamic, moveable, changeable, and thus fundamentally ‘open’ in the sense of its unfolding over time. “The condition of ‘digital birth,’” observes Simanowski, necessarily entails systemic features such as “connectivity, interactivity, multi-mediality, non-linearity, performativity and transformability” (“Reading Digital” 15). Hypertext has adopted all of these features as intrinsic constituents of its digital textuality – it enables the generation of individually selected narrative strands by reader/player interaction. Indeed, granting the user different possibilities for continuation is the most striking structural feature of hypertext, and one that differentiates it quite clearly from most, though not all, traditional print fiction.¹⁴⁹

Hypertext is formally rooted in non-linearity and open-endedness; it “does not”, as Raley notes, “adhere to a fixed, rule-based system; rather, it takes on the quality of disturbed, deferred, bifurcated movement. In that its performance is that of the trace, emphasizing not only the play of difference, but also open systems, feedback loops, a flattened network, links, and the interval between

148 This, again, refers to the essential difference between texts *written for* the computer and texts *adapted for* the computer. See Aarseth, who maintains that for the choice mechanism in hyperfiction to be useful, “the text in question must contain the need for such transition as an intrinsic figure” (*Cybertext* 76).

149 A new subgenre of hypertext/gaming is designed especially for Apple’s mobile platforms iPhone, iPod Touch, and iPad. In this variant of digital storytelling, the reader interacts with the story and characters through actions typical for these devices, such as sliding her finger over the screen, tilting, or shaking the device. The interaction is thus decidedly physical, and uses distinct features of the medium in order to access story content. The material engagement with an electronic device resembles the reader’s material engagement with printed future narratives. In *My Secret Hideout* for the iPad, for instance, the reader/player is asked to “drag and drop different-shaped leaves to form nodes in a branching structure. Every addition to the tree modifies the description of your magical tree-house.” (Gilmore) That is, the reader/player *creates the very structure* which then generates an arboresecent story for her, performing a sort of ‘reverse’ Choose-Your-Own-Adventure creation process. Marc Saporta’s loose-leaf novel *Composition No 1* has also been adopted for the iPad.

links, its dynamic is more *différance* than difference.” (“Reveal Codes”) That is, hyperfictions are emergent, performative, and open narratives that always contain the potential of generating different options and continuations. Indeed, the structural openness of hypertext narrative has even prompted concerns about a radical re-shifting of narratological conceptualization as a whole: “Does the interactive nonlinear medium of hyperfiction”, asks Tillman, “[...] force us to question our identity as narrative creatures?” (387)¹⁵⁰ This re-evaluation of what narrative actually is lies, as Chapter 2.1 has shown, at the very heart of future narration. In fact, hypertext proves to be its most straightforward example, since the inclusion of multi-linearity and reader choice in the textual realm questions not only the relation between narrative and sequence, but also our preconceptions of narrative as a motor for meaning creation that works ‘in hindsight’. Hypertexts call up a wide array of concepts that are highly pertinent to the conceptual understanding of FNs as a whole: the notions of game and play; the image of the journey or of the path; the significance of the decision-making process and of selection; the concept of forking paths and of (temporal and spatial) branching; of indeterminacy, potential open-endedness, non-sequentiality, and modularity. The working against closure and the resulting structural multiplicity of hypertext makes this genre one of the key species of narrative relevant to this study. Though hypertext narratives often face problems when trying to effect meaningful reader engagement with the ‘stories’ they tell, problems which shall be considered in more detail a bit further into this chapter, their reliance on nodal structures designates them as textual operations in which choice situations are the norm rather than a peculiarity. Hypertexts work so well as FNs precisely because they *need* nodes to function as text.

Beside this structural specificity of hypertext narrative, the digital genre is also pivotal in establishing a typology of future narration because it bears important epistemological connections to temporality and futurity. While hypertext is often praised for its replacement of temporal sequentiality with simultaneity (Shelley Jackson’s hypertext novel *Patchwork Girl*, for example, refers to itself as a “merged molecular dance of simultaneity” [“story/rest of my life”]), its textual experience also centrally hinges upon the concept of the future or the question of ‘and then’. In hypertext fiction, the ‘not-yet’ is a central epistemological concern, as the continuation-by-choice mechanism constantly gestures toward future temporality, toward what lies behind the next link but is yet unseen. While this

¹⁵⁰ Also see Ryan (*Virtual Reality*243), who asks a similar question: “Does hypertext tell stories at all, or is it primarily a machine for the dismantling of narrative?” Aarseth goes even a step further in positing that “hypertext is not a reconfiguration of narrative but offers an alternative to it [...]” (*Cybertext* 85).

preoccupation with unactualized story options can, of course, be postulated for all types of FNs, hyperfiction is explicitly based on *withholding* narrative content while, at the same time, making the reader/player aware of its multiplicity; it “allows the reader to see one particular version of a text, while many other possibilities lurk behind that image.” (Sassón-Henry 11) These other possibilities are always, temporally speaking, in the future, and so anticipating that which is still to come figures as a major motivation for reading a hyperfiction in the first place; hyperfiction creates a desire to protrude into the temporal beyond. The emergent nature of digital textuality, which literally appears *only* when activated by a user, turns the process of reading into the process of the text’s evolving and becoming, and so hypertextual narrative acquires “the double dimension of process and product.” (de Souza 241)¹⁵¹ Hypertext can thus be taken to signify, in a very material way, “a system whose future state is unpredictable and indeterminate until it actually emerges and comes into being” (Raley, “Reveal Codes”) – or, we should perhaps modify this statement, it appears this way to the user (more on the double nature of electronic fiction as code and text below).¹⁵² While it is certainly the case, as has been repeatedly postulated, that digital culture actually shrinks the distance between ‘now’ and ‘after now’ by reducing the temporal span between these two states to a minimum, clicking on a link is always an action signifying the advance into a realm of possibles that lies beyond and is actualized by reader/player agency.¹⁵³ The future of the text is directly dependent on reader/player engagement, as hypertext withholds its story chunks or lexias as removed possibilities until they are activated and made visible by the reader/player through selecting a link.

The fact that hyperfiction is based on a poetics of anticipation and (gradual) actualization also becomes apparent through its status as ‘twofold text’ already hinted at – hypertextual structures are necessarily constructed of digital code or Hypertext Markup Language (HTML) not visible to the user, who encounters only those segments on the screen which have been converted into readable text.¹⁵⁴

151 An ironical exception is Moulthrop’s *Hegirascope*, which takes action without the user’s interaction; also see Chapter 5.5.

152 Regarding the temporality of hypertext, Aarseth maintains that “a work that may be observed in different stages of completeness and that has not yet crystallized in a final version is both temporal and irreproducible.” (*Cybertext* 81) Similarly, Koskimaa observes that “the hypertext carries in its structure the process of its own development.”

153 Also see Parker: “by traversing the gap that is the link, the gap is filled with meaning. It becomes a part of the text.”

154 See de Sousa: “In digital text production, an unprecedented stage is introduced into the chain of information processing: the mediation of codification by mathematical programming. This singles out digital text as an entirely novel form of written language” (235).

Hyperfiction narratives can thus be regarded as “texts whose materiality lies in the modality of its own structure and performance, in its code” (Raley, “Reveal Codes”), and this difference between material code and text creates a span between deep structure and actualization which mirrors the principle structural pattern of FNs as a genre:

We have a first page – or screen – that we may call visible, with its languages of forms, its interactions, its iconic denseness, its movements of transformation, adaptation and interactivity; in another space, that of the programmers (space of another visibility), we have the source-code, which is precisely what makes that first page visible, manipulatable and, as a consequence, endowed with a degree of coherence. (Sanz and Romero 9)

The realm of the unseen is thus deeply inscribed into hyperfiction’s textual status; what lies beyond the interface of the screen is what determines the inherent variability of the digital text. In a metaphorical-spatial sense, hypertext fiction is a profoundly divided phenomenon, rendering text accessible while withholding its visually inaccessible code from the average user. The connectivity suggested by the linked nodal structure is therefore counteracted by the two components of virtual textuality, where “the text we see on the screen is not the text as it is written.” (Sanz and Romero 8–9)¹⁵⁵ Again, this engenders a sense of ‘the other’ that is unseen but there just below the surface, and attributes a notion of instability to the narrative resulting from code: “In the computer the signifier exists not as a durably inscribed flat mark but as a screenic image produced by layers of code precisely correlated through correspondence rules.” (Hayles, “Flickering”) Hypertext only reveals part of the picture and veils its architecture behind the interface of the screen, so that each individual run brings parts of the total textuality to the surface. These parts are accessible by the central formal element of any hypertext: the link.

The link is the determining structural principle of hypertext narration as a whole. The linked structure of hypertext fiction allows for reader/player selection and the performance of individually chosen paths through the narrative; however, it is not correct to simply equate the terms ‘link’ and ‘node’, since a node is characterized by offering *more than one* continuation, while a link can easily only lead on to one continuation (for example, a link which yields to additional information about a certain aspect of the text in the manner of a ‘foot-

¹⁵⁵ Hayles has adapted Aarseth’s terminology of scriptons and textons for the classification of digital textuality: “With electronic texts there is a clear distinction between scriptons that appear on screen and the textons of underlying code, which normally remain invisible to the casual user.” (“Flickering”) Similarly, de Souza remarks that digital text “is not actually *writing*, only sets of codes programmed to *appear* as writing” (240).

note'). In order to qualify as a node in the sense of NAFU, it either has to be the case that *one* link must enable the accessing of *different* lexias (this usually means that the reader/player does not know which continuation she will gain access to by selecting the link) or, more frequently, that a hypertextual screen offers more than one link (and thus more than one continuation beyond itself); this screen, then, can be regarded as constituting a nodal situation. Nodal structure can take on very different forms in individual hypertexts, as arborescent, axial, and networked patterns are all possible. While network nodal structures certainly factor most prominently in hypertext narration – after all, the digital medium makes the gestures of re-visiting and re-circling far more easily realizable than the print medium – there are also hypertexts which function according to a simple, binary tree mechanism (the hypertextual version of Queneau's "Story As You Like It" would be an example of this) or allow the exploration of individual branches leading back to a main axis of storytelling (in this case, the reader can gather additional information or material relating to the page she has just encountered before returning to this page). In any of these forms, linking is the central instrument for connecting individual story segments to each other; these links are functionalized in very different ways, however, when it comes to their visibility within the overall textual structure.¹⁵⁶ A basic distinction, already considered in Chapter 3.9, can be drawn between texts that *openly flaunt* their points of continuation and those that *hide* the links within the textual frame: in short, between overt and covert nodes. In contradistinction to hard-copy textual FNs, such as Choose-Your-Own-Adventure books, hyperfictions contain the possibility of obscuring nodes, forcing the reader to 'try out' which words of the texts can be activated as links. Such texts do not openly expose their rule system, but challenge the reader to discover the rules as she 'goes along'. Hypertext author Shelley Jackson has famously observed that "the link [is] not neutral", (Raley, "Dolls & Monsters") and indeed, the connective and associative mechanisms gen-

156 Several efforts at formal link classification have been made. Ryan distinguishes between six different categories of links. These are *spatial* links which "reorganize the text into formal patterns that can only be apprehended by contemplating it from a synchronic perspective;" *temporal* links, which present events in their correct chronological order and move the plot forward; *blatant* links, or "Choose Your Own Adventure" links which "give the reader a preview of the content of the target lexia, enabling her to make an informed choice among many plot developments;" *simultaneity* links that allow the reader to jump from one plotline to another; *digressive and background-building* links which "suspend momentarily the development of the story;" and *perspective-switching* links that "take us into the private worlds of different participants in the same episode." Parker differentiates between *functional* and *literary* links, where functional links merely provide access to information, while literary links "produce a literary effect" (*Avtars* 110–111).

erated by linking are semantically charged to a high degree. The link, one could argue, is the locus of desire, as it points to the existence of the other within the here and now; it is a mechanism of transition that necessarily suggests ontological potentiality and multiplicity in its reference to what lies beyond the present. Regarding the semantic potential of links, it is rather difficult to pinpoint this potential to a single sense of meaning generation; Chaouli has, indeed, noted the polyvalence of the link's semantic capabilities: "Links may inform, promote, tease, elaborate, cite, amuse, ironize, deceive, confuse, or, frequently enough, lead to the dead end of missing data. Their semantic range is so indeterminate that the link may well be the most polysemous sign with which we now routinely operate." Still, a differentiation with respect to the basic signifying relationship between the link and the content accessed by it seems useful in establishing a general semantics of linking with respect to future narration. Regarding the perceived consequence of a given choice, which will influence the reader/player's attitude toward the FN as a whole, how easily she can establish a correlation between the links themselves and the narrative content accessed by them is of essential importance. When there is a detectably meaningful connection between the link and what follows – be it a literal continuity between 'before' and 'after', or an ironical disruption, or even a contrastive opposition, the reader will be able to semantically associate the linked text segments in some way and thus establish at least a minimal sense of referential consequence from having traversed the individual links in the sense of 'this has happened because I have chosen this'. In Shelley Jackson's *My Body: A Wunderkammer* (1997), for instance, a visual representation of the female body contains individual body parts which function as links; by selecting the link "tattoos", the reader encounters the following statement: "I have twenty-eight tattoos, of which two are visible. On my right arm, over my triceps, I have a black ampersand, about one and a half inches high. I have a black vortex on the inside of my left ankle." The meaning of the link word 'tattoos' is thus directly associated with the linked content, and selecting the link serves as a strategy to access more information about this word. Associating link and content in this way grants the reader the possibility of experiencing narrative agency, albeit of a very minimal kind; though she usually cannot influence or even change the narrated world through her link selection, she will at least be able to perceive her choices as meaningful for the exploration of the story as a whole and thus categorize her reading as goal-oriented. While the link-content relation in hypertext fiction is seldom as straightforward as in the Jackson example – Stuart Moulthrop's *Hegirascope*, for instance, offers four links on every screen, but rarely posits direct relationships between a link and its content – the detectability of semantic connectivity within the narrative's nodal structure exposes the rules of link signification for the particular hypertext and

thus designates the text as possessing some degree of teleological directionality. When there is, on the other hand, no associational correlation between link and what follows, the experience of traversing the nodal structure is necessarily one of randomness and ambivalence; the motion of selecting links mirrors that of arbitrarily flipping through television channels rather than engaging in any kind of consequential reading process. The ludic principle of such texts is ‘free play’ or *paidea* (cf. Callois 13). A third variant of link semantics would be that of self-referentiality, where the link points toward its own connective potential, toward the act of clicking and choosing. *Hegirascope*’s self-conscious play with the concept of linking is an example of this; for instance, a click on the word “motionless” yields a black screen without further links (rendering the reader/player ‘motionless’ in a very literal way), while the link “no more links!” actually leads to four other links, thwarting the reader’s expectation that this is a ‘dead’ node.

Since linking in hypertext is most often implemented without providing direct information regarding the choice offered, this digital genre generally encourages exploratory rather than (strictly) teleological reading patterns.¹⁵⁷ The reader’s movement through the text is not determined by knowing the immediate consequences of decisions, but by the desire to accumulate as much knowledge as possible about the narrative web traversed in order to obtain a maximum degree of orientation within the textual structure. In this context, it seems logical that most hypertexts constitute network rather than tree structures, as such an additive reading process is only possible within a structure that allows circling and retracing. Reading hyperfiction is thus an act of *accumulation*, of gaining a growing sense of direction within the textual universe by exploring its web-like routes, and is in this sense contrastive to all forking-path structures that functionalize reading as *elimination* – the elimination of alternatives, that is, by choosing one particular option over the next. By testing out different configurations and paths through the digital text, the reader acquires a deeper understanding of its totality and can therefore potentially optimize both her selections and her navigation of the network structure. Choosing option *a* over option *b* does not take away the possibility of accessing *b*, but merely puts it off until a later point in the run: nothing is lost by choosing on a whim and without information. However, truly exhaustive readings are rarely possible in any single performance of a hypertext, despite the possibility of re-visiting individual nodes; in most complex hypertext structures, only a part of the options offered can be accessed during a concrete reading simply because the nodal structure is too intricate to be explored all at once. There is thus always a sense of ‘missing’ some of the possibilities offered

¹⁵⁷ Ryan acknowledges hypertext’s “open invitation to pursue sidetracks [...]” (*Virtual Reality* 216).

by the text: “The reconstruction of narrative meaning is hardly ever complete because readers rarely visit all the lexia.” (Ryan, “Multivariant” 421) This sensation of exploration that is never wholly comprehensive may either fascinate or frustrate; in any case, it points toward the dynamics of exhaustion that lies at the bottom of digital textuality, which allows closure not by reaching a definitive ending point, but by achieving a sense of satisfactory understanding of the narrative construction: “electronic closure occurs when a work’s structure, though not its plot, is understood” and when “the map of the story inside the head of the reader has become clear.” (Murray, *Hamlet* 174) In this sense, of course, there *does* exist a sense of teleology in reading hypertext, but it is a teleology very different from that of conventional narrative texts, striving towards maximum saturation rather than towards a fixed end, or the successful ‘solving’ of a quest or puzzle.

Any digital link that has been actualized becomes a part of the text rather than remaining part of a network of potentials (though, as will be explained below, it may be accessed again under different conditions at a later stage in the reading process).¹⁵⁸ This switch from potentiality to actuality is significant in constituting the difference between run and protocol for FNs; once a link has been performatively activated, it is automatically inscribed into the protocol, and thus fixed in a sequential (past) narrative rather than posing as a node that explodes the text into a display of possibility. The status of the link is thus twofold within the navigational process of FNs: it changes from being an element of the architecture, which enables multiplicity, to being activated during a run, this activation changing its mode to stasis. However, as has already been suggested above, digital nodes can revert to their original status as sites of possibility within one run, as they may be accessed more than once.¹⁵⁹ This is one of the decisive differences between print and digital FNs, as the networked, cyclical nature of hypertexts enables the reader to return to a specific node and traverse it a second (and third, etc.) time, while the printed text usually operates under an arborescent principle which allows only one encounter of each node in one sitting. Links are thus nodes that contain the potential of being ‘re-activated’, and often, the second

158 Glazier has made a similar observation: “Once a link as been taken, it is no longer a link but a constituted part of the already traveled narrative; the link loses its potentiality, but in doing so, it opens up the possibility of other links” (35).

159 Ryan (*Virtual Reality* 211) suggests the possibility that “[i]n an electronic text the links to the branches not taken could be cut off, so that the reader could reread only the plot she has selected”, though she does not name a specific example for this type of text. Robert Kendall’s hyperfiction *A Life Set for Two* (1996) actually operates under such a non-reversibility paradigm: “Kendall means to establish a ‘real time’ superimposition on the story by constraining access to the text. He eliminates the backtrack features, and, should a node be revisited, the text will have changed” (Luesebrink 109).

visit of a link happens under very different conditions. Arguably, the reader will have accumulated more information on subsequent visits, and in some cases, even the nodal situation *itself* is different when revisited. In Stuart Moulthrop's *Reagan Library*, for instance, each successive encounter of a screen generates added text and more links, and this accumulation of material makes the nodal situation more complex with each subsequent visit, providing the reader with more options on how to continue. This, again, is something that is an utter impossibility in printed FNs, where the nodal situation itself must remain static even when encountered repeatedly, and where, though additional reader knowledge may optimize the choice process, additional information given at the node upon revisiting is out of the question. Once more, we are reminded of the increased opportunities for nodal complexity that the digital medium affords, but, as we move to the question of agency, we will soon encounter the downside of hyperfiction's intrinsic linking of material – the threat, that is, that this linking may not effect any significance beyond itself, that it may fail to make the reader/player's choices narratively relevant. When you can choose everything, your individual decisions may mean nothing.

As has already been posited repeatedly, choice constitutes a major criterion within the reading performance of hypertext fiction, as only the combinatorial selections of the recipient actualize the lexia and order them into a narrative experience. Reader interactivity is preconditional for this genre, and Fowler has aptly observed that “[i]t is impossible to be a passive reader of hypertext.” Digital textuality is one of the best cases, however, of calling to mind the distinction that Murray has posited between interactivity and agency – the latter being a *meaningful* kind of interactivity, one in which the reader/player feels that her choices count. Hypertext narratives, while being interactive, may actually be seen to work *against* granting the reader a sense of agency, as “[h]ypertext fiction lacks one of the key ingredients that makes games compelling; there is no goal for the reader, other than getting to a point where he or she ‘gets’ the story.” (Costikyan, “Where Stories End”)¹⁶⁰ This problematical status of readerly agency within hyperfictional narratives is just one of the caveats against propagating hypertext as the ‘perfect’ textual FN – even if, so far, this is the impression that may have been evoked. While it is true that hypertext adopts some of the most central structural

160 Likewise, Murray observes that “[t]he indeterminate structure of [...] hypertexts frustrates our desire for narrational agency, for using the act of navigation to unfold a story that flows from our own meaningful choices.” (*Hamlet* 133) Miller even attributes to the ‘older’ medium of print literature a higher potential of generating interactive and immersive narratives: “The medium of hypertext [...] in many ways subverts its own ambitions, creating narrative experiences that are in fact less interactive and liberating than those of print fiction.”

aspects of the FN genre – it not only enables, but enforces choice situations; it works on the principle of linked nodes; it generates new paths through the story with every individual reading –, the multi-linear format of hyperfiction often fails to effect meaning beyond itself. Or, in other words: while choice is necessary to activate narrative content here, it also runs the risk of becoming random, because in hypertext, reader decision making often does not change anything about the storyworld presented. It appears that intrinsic choice activity does not equal a satisfying sense of consequence. Indeed, the life- and-death choices a simple Choose-Your-Own-Adventure book offers are often more consequential than the choices a complex hyperfiction such as Michael Joyce's paradigmatic *afternoon: a story* offers. This is important to note once again about textual FNs, and about the genre as a whole: the number of options and the complexity of their arrangement say very little about the effects that a reader's choices have on the storyworld itself. There is, in other words, no proportional relationship between the quantity and quality of choices in future narratives, or between the number of options and the degree of nodal power a FN holds.

Most hypertexts are based on the concept of exploratory interactivity, where consequentiality makes way to arbitrary selection; the consequence of any single choice in hyperfiction is, therefore, of a significantly lower degree than in most printed texts, and the reader will arguably never be subjected of a sense of 'If only I had...' during the hypertextual experience (because she can always go back to a certain node and explore another path). In a paradoxical sense, then, hyperfiction has not managed to functionalize its frequently hailed mechanisms of openness and reader interactivity to afford the pleasure of significant decisions, decisions with which the reader feels she has affected the story to develop one way or another. This may be one of the reasons why hypertext is a format that has not been able to establish itself firmly on the literary market. Though the desire for user agency has certainly increased over the years (and the boom of video gaming clearly testifies to this), digital fiction does not cater to this desire, but exposes its nodal system as an offering of possibility that is often characterized by an undeniable degree of haphazardness. The reader of a hypertext fiction usually cannot affect the storyworld; she can visit it, learn about its dimensions, create a textual web by accumulation and association – but she will probably not be able to feel that she has crafted her own destiny within the narrative, or that she has influenced its plot. One cannot 'win' or 'lose' in a hypertext as one can win or lose in a CYOA-book, or an interactive fiction. While hypertext certainly invites the reader to play, its game is one of exploration, of *alea* rather than *agon*. We could postulate, considering the 'failure' of hypertext as a commercial phenomenon (this is not to discredit hypertext authors such as Stuart Moulthrop, who creates experimental and exciting digital fictions such as *Pax* [2003] or *Under Language*

[2008]) and the enormous triumph of the gamebook and of the computer game, that when readers are offered a choice in narrative, they want this choice to mean something. Choosing entirely at random does not seem to generate satisfaction, and this is the crucial pitfall that hypertext authors – however enthusiastic they and critics were that this new genre would grant readers the ultimate freedom in navigating stories – succumbed to.

4.5.3 The Visual Novel

A relatively new genre emerging within the realm of digital fiction that has attempted to adapt consequential reader choice into its architecture is the *visual novel*. Visual novels (most predominantly created and consumed in Japan) are a type of interactive electronic storytelling combining art graphics (usually in *anime*-fashion) with text segments. As its name suggests, the visual novel relies heavily on images, or what Cavallaro has termed “pictorial sumptuousness” (8), to immerse the reader/player in storytelling, and the elaborate animations are complemented by dialogue boxes containing “text conversations” (*ibid.*) between characters that advance the narrative. The genre hovers between digital hypertext, video gaming, interactive fiction, and role-playing games; the interactive nature of the format, which “contains the materials (characters, structures and events) of a *potential* or *virtual* story” (Cavallaro 3) clearly designates it as a continuation-by-choice mechanism in which the reader/player must actualize narrative content.¹⁶¹ Indeed, narrative is privileged to a considerable degree in this genre, as the visual novel is “a type of game not big on real-time action, intense strategy, or even menus, but one *dedicated to presenting old-fashioned stories in slightly different ways.*” (Barnholt; emphasis added) That is, the visual novel’s emphasis lies on storytelling rather than on intricate game mechanisms, and “narrative construction becomes the ultimate drive directing the game’s multidirectional unfolding.” (Cavallaro 35)

At some points within the run-through of a visual novel, the reader is offered the possibility of choosing how the story will continue (usually in the form of two clearly stated options): “The visual novel characteristically dramatizes alternate and intersecting story arcs and its ending therefore varies depending on the choices made by the player at certain pivotal ‘decision points.’” (Cavallaro 1)

¹⁶¹ As Cavallaro further explains, visual novels “[do] not contain an autonomous story in the classic sense of the term. [...] Yet the game itself does feature all of the ingredients of a virtual or hypothetical story that is capable of coming to fruition through external interventions and is amenable to decoding in essentially narrative terms” (34).

Indeed, an online video explaining the basics of visual novel creation states as its number one essential that “[t]he reader must be able to make choices.” (“25 Visual Novel Essentials”) This continuation-by-choice format structurally links the visual novel to the Choose-Your-Own-Adventure genre and other bifurcating narratives, though the number of binary choices offered in visual novels is usually far lower than that of CYOA-books. A much more restricted type of interactivity is also triggered by these texts because of their predominant structure, which allows progression through the text only by activating the next link (i.e., clicking on the screen in order to receive the subsequent text bit). While there is no degree of choice involved in this interaction (other than the basic choice to continue, which is no different, however, from the turning of pages in a conventional book), the reader of a visual novel must demonstrate some degree of knowledge about electronic structures and dynamics and use this knowledge to progress through the narrative. In this sense, the visual novel reader mirrors an ‘interactive user’ more closely than the reader of a traditional literary text. The visual elements add to the multimodality of the genre, associating it with the video game, and, indeed, visual novels are often referred to as games,¹⁶² whose most frequent objective is the successful conquering of a (male or female) love interest. However, gameplay generally fails to develop beyond click-and-choose interactivity, and is thus often extremely minimal.¹⁶³ As in simple CYOA-stories, the interaction between reader and text often has the sole function of advancing the story, and does not tap into the rich potential of structural self-reflexivity which such interactivity offers. The *erogē* (i.e., erotically charged) content of many visual novels reduces the choices of the user to picking the more visually attractive partner (the online video alluded to earlier states as its number two essential that “the reader must be able to ‘go’ after at least two girls”), and it is clear from this that decision situations in visual novels are habitually not very complex. Only a select number acclaimed works such as the recent *999: Nine Hours, Nine Persons, Nine Doors* (2010) have attempted to transgress the rather simplistic plot lines of visual novels in favour of more engaging and multifaceted storylines; *999* combines a playing experience that strongly relies on text with intricate puzzles that the reader/player must solve in order to free nine different characters from a ship that will sink within nine hours. This visual novel’s privileging of story over game (though there are lots of action-packed escape scenes) testifies to the fact that this genre *can* effect truly engaging interactive narrative experiences, where

¹⁶² As, for example, in the extensive visual novel database visualnovelgames.com.

¹⁶³ Though Cavallaro claims that the visual novel “transcends the boundaries of other types of more controlling videogaming” (8) in terms of interactivity potential, the degree of interactivity required is unquestionably lower than that of most types of video games or even hypertexts.

narrative is used to prepare the reader/player for the complexity of choice situations – in 999, she is faced with “a lot of text to read followed by a key decision.” (Jenkins) This sort of effective fusing of story and game is rare, however, and the visual novel remains a genre that is determined by quick point-and-click strategies rather than by reflected readerly choice making.

4.6 Approaching the Boundaries of Textuality: Narrative as Collaborative Performance

The step from electronic textuality toward collaborative performativity intensifies the aspect of genuine emergence that FNs can potentially harbour, as the interaction of multiple readers/players causes the decision dynamics of a given nodal situation to become exponentially more complex. Collaborative decision making is especially prominent, though not limited to, the digital realm, where many different and geographically disparate individuals can pool resources and cooperate; narrative formats such as the alternate reality game explicitly rely on this mechanism of digital communities in order to generate ‘hive mind’ strategies for collective problem solving, with their predecessors Pen-and-Paper Role Playing Game (RPG) and Live Action Role Play (LARP) functionalizing face-to-face communication for similar purposes. We have now reached the margins of what we can still consider as ‘text’, as many of these performative modes of narration do not operate as straightforwardly with textuality as print or hyperfiction narratives do; rather, they combine many different narrative strategies to create a textual artefact that may be dispersed, fragmentary, and potentially ephemeral. On the other hand, collaborative performance is one of the most ‘open’ forms of storytelling, and thus especially well suited in the context of future narration, whose primary *differentia specifica vis-à-vis* traditional storytelling is the preservation of this openness in narrative form. The emergent nature of collective narration, as practiced extensively in the RPG and in massively multiplayer online games such as the forecasting game, does not only depend on player input, but on feedback mechanisms between text and player(s), the latter of whom can change the actual setup of the text in ways that is not possible in any other form of textual storytelling considered in the scope of this study. These variants of storytelling are thus truly interactive, as they allow mutually responsive ‘communication’ between the player(s) and between the players and the game structure as a whole. Pen-and-paper role playing and alternate reality gaming (with its subgenre of forecasting games) are here considered in greater detail, because they privilege textuality to a degree that designates them as text-dependent and text-generating mechanisms. While they have often been considered in the context of gaming, their potential

as storytelling engines should not be overlooked and is of central concern to this study – these collaborative, performative narratives are FNs in the truest sense, empowering the reader/player to shape both the storyworld *and* the setup of the text itself. Related to these forms, but not considered here are LARPs (because these live-action mechanisms depend more on acting and less on writing and/or generating text) and the genre of fan fiction, which may also function as a collaborative storytelling strategy, but is much less clearly structured as a nodal text – indeed, while fan fiction operates with concepts of textual ‘openness’, multiple continuations, and alternative endings, the question of what constitutes a ‘node’ in such forms of storytelling (a literary text as a whole? its ending? a character?) is so ambiguous that it proves difficult, if not impossible, to classify them as FNs.¹⁶⁴ A similar argument applies to another important form of performative narration, that of oral storytelling, which constitutes a truly emergent and dynamic narrative, as the human storyteller can react to input from the recipient and modify his storyline indefinitely, if not infinitely. Oral storytelling functionalizes the entity of a responsive narrator, a human consciousness (as opposed to an artificial intelligence) that, while narrating a story, dynamically adapts that story in response to the audience’s participation and interaction.¹⁶⁵ Face-to-face narration, however, will not be considered within this study because it does not usually leave behind a narrative artefact which could be considered as protocol; it is a kind of ‘immaterial’ storytelling experience that is ephemeral and lasts only as long as the narrative process itself, and thus extremely difficult to classify in any systematic way. Attempting to identify a nodal structure for this type of narration would therefore be infinitely complex and most probably a near impossibility, as the open structure of oral storytelling is identical to real-life communication. The discussion of RPGs and ARGs that is to follow will, on the other hand, demonstrate that these

164 See Derecho: “Fan fiction, and all archontic narrative, permits virtualities to become actualized. Archontic literature assumes that every text contains a wealth of potentialities that variations of the text can then make actual. [...] To write or read or study fanfic is to admit that the text is never stable, that virtualities inside source texts are perpetually in the process of becoming actualized, that between texts within a given archive there is repetition with a difference, and that the interplay between the texts can never be solidified and stilled, for fear of losing the difference, the spark, the chaos that is invention and innovation” (74; 75).

165 In a sense, the generative process of oral storytelling, where the performer is constantly involved in an act of selection and concretisation of story material to shape a narrative, could then be taken as being analogous to the process of literary creation as a whole – any author, after all, must perform this act in order to reduce possibility into actuality. What differentiates the two processes is, however, the possibility of audience feedback that is usually restricted to oral narrative (a child, for instance, requesting a different ending to a tale just told). While both forms of storytelling leave behind a PN through the acts of selection and reduction, face-to-face narration is unique in its unrivalled degree of openness and emergence.

variants of narrating the future can be subjected to a functional structural analysis that takes into consideration both their status as text-games and their reliance on and generation of narrative content. Though the position of such modes is certainly on the boundaries of what we can still consider to be textual narratives (they veer strongly toward the field of gaming), they provide the opportunity to examine future narration at its most essential form – namely, dependent on true human (inter)action, spontaneity and creativity, suggesting that the most radical future narrative of them all would be – life itself.

4.6.1 Pen-and-Paper Role Playing

Pen-and-paper role playing games (RPGs), also referred to as table-top role playing games,¹⁶⁶ are a unique mixture of gameplay and narrative that functionalize emergent storytelling in a rule-based, ludic environment. While the gameplay elements include a game master, rules, and the use of dice, narrative is the basic ‘engine’ which keeps the game running, since the advance of the game depends on the collaborative effort of storytelling on behalf of all present players. Indeed, Dormans has argued that “Pen-and-paper roleplaying games *tend to be more told than enacted*. In these games one plays a character by describing what she does and what she says” (emphasis added); that is, the narrative performance of each player creates and determines the unfolding of the game challenges posed by the game master.¹⁶⁷ The collaboration between players creates an emergent narrative, albeit structured by the general rules (often laid down in ‘rule books’) and by the game master’s intervention; the characters “cooperate in telling each other one single story in which they all play a role under the guidance and judgement of one pre-selected player.” (Dormans) Since the players interact as human ‘storytelling engines’, pen-and-paper RPGs include extremely high degrees of unpredictability and improvisation within the narrational process, as the interaction of multiple human storytellers is able to generate genuinely spontaneous narrative content that was neither scripted nor intended by the game master. This power that the players hold over the basic development of the story makes for a very

166 Also see Dormans: “The label pen-and-paper stems from the fact that most of these games use pens and papers to keep track of the game. Critical character information is recorded on ‘character sheets’ and often locations are mapped out on pieces of paper or similar material. These games are played around the table or in a similar domestic setting.”

167 Punday claims that “RPGs are fundamentally narrative in nature” since they “are played within a storytelling environment, whose dynamics are primarily narratological: players construct characters, anticipate events and the plot lines they imply, respond to settings for exploration and adventure” (114).

significant perceptibility of agency within the gaming process; the players of a pen-and-paper RPG “have not just listened to a story, they have actually played a part in it, without them it might have finished differently.” (Dormans)¹⁶⁸ Though potentially shaped and guided by the game master’s intervention, the narrative developed by the players’ interaction is neither pre-structured nor equipped with a fixed and specified end point, and so constitutes a truly dynamic narrative situation.¹⁶⁹ That is, the narrative may theoretically proceed infinitely, continually ‘fed’ by the human narrators with more content. In practice, this potential incensancy is counteracted by the setup of RPGs as quests or missions with desirable goals; these goals “provide the sense of purpose which propels the game narrative.” (Miller) This teleology thus guides the players into specific directions; however, their interactive storytelling performance and the formal inclusion of chance into the gaming process by means of dice rolling engenders a storytelling format determined by openness rather than pure goal-directedness.¹⁷⁰ The game master, on the other hand, has the ability to dynamically react and adapt to player input and to modify the overall game structure accordingly.

Because of this potential of both players and game master to dynamically influence the game as human agents, pen-and-paper RPGs contain an extremely high degree of nodal power, since any utterance of one player can generate a potentially unlimited number of reactions by fellow players and/or the game master and thus opens up an enormously large consequence space. In this aspect, they are very close to oral storytelling in general, and thus decidedly difficult to classify structurally with the use of a nodal model: though it can be postulated that each player output constitutes a nodal situation, the total number of continuations or their configurational arrangement is effectively impossible to determine because of the high flexibility of live human reaction, though it can

168 Dormans further describes the role of agency as follows: “The gameplay of a roleplaying game, here loosely understood as the way the game mechanics work, what the player does and what options she has, directly contributes to agency. Picking the right weapon to fight a special foe or rolling particularly well does make a difference.”

169 Also see Costikyan: “Unlike digital RPGs, there is not pre-established story line, although most paper RPG rule books contain one or several stories for new gamemasters to use. The expectation is that a gamemaster will invent his or her own stories for players, using the rule system as needed.” (“Games, Storytelling” 9) Dormans similarly notes that “there are no winners and losers in a roleplaying game. Neither is there a fixed goal. Roleplaying games seem to depend more on ‘playing’ than on ‘gaming’; more on paidea than on ludus.”

170 Dormans has commented on the significance of the dice for this genre: “many [pen-and-paper RPGs] work on the basic premises that character actions with uncertain outcome are represented by the dice-rolls of the player. In its most basic form the roll of a die directly corresponds to a certain chance of success.”

certainly be stated that generally, RPGs follow a networked structure characterized by bidirectionality. The fact that dice are employed to “provide some formal structure” (Fine 7) in the sense of determining outcomes of actions does little to counteract the formal openness of these narratives, as chance rules in this case, as well. Pen-and-paper RPGs also are, like oral storytelling, an ephemeral phenomenon, as they “do not have a material existence” (Miller) beyond that of the players and their immediate gaming environment. In a very concrete sense, these games mirror life more than gaming (cf. Fine 8).¹⁷¹

Collaborative decision making in order to advance a narrative is also the basis for new digital, interactive text forms such as the *wovel* (short for ‘web novel’). In this modern-day version of the 19th-century serial novel, the audience has to wait for each weekly instalment to continue reading; they can, moreover, decide how the plot of the *wovel* will continue by means of online voting.¹⁷² Story episodes usually end with a cliffhanger, underscoring the desire of readers to determine and access the continuation. The fact that instalments are made available in a weekly rhythm is a tribute to the print culture from which the serial novel originated rather than a symptom of their electronic environment; *wovels* deliberately time the continuations instead of making them immediately accessible to the online community, thereby going *against* digital temporality, which privi-

171 The players of improvisational theatre can also, adopting a broader definition of narrative, be defined as a collective (and mimetic) responsive narrator, as the narrative they create through their action dynamically (and as a direct response to the spectator’s participation) is shaped by their human consciousness. The feedback system between narrator and audience is thus constantly active, and each party must be able (and willing) to react and adapt to the output of the other. This sense of dialogicity, which defines improvisational theatre (cf. Fischer-Lichte 67), results in the generation of the unforeseeable and unexpected; the nodal situations in this genre are so many that, in essence, every scene offers a seemingly indeterminable number of possible continuations. However, despite this close approach to true future openness, this form of narration, too, relies on rules, however loosely structured; Uren has associated improvisational theatre to game play for this very reason, arguing that it presents “the challenge [...] of creating stories spontaneously as they are being performed. These stories are not created by the quick thinking of improvisers on stage, attempting to invent the characters and plot as they go. Rather, the stories are created by playing a game. As each story is unique, so is the game that creates that story. The rules of such a game do not exist until the story begins.” Improvisational theatre can thus be considered as developing its rules simultaneous to its performance. Regarding improvisational theatre as a simulative game stresses its relevance for the assessment of future narration, as these two factors – simulation and game play – lie at the very heart of what constitutes this genre.

172 See the following description of this new genre: “‘A *wovel* is a web novel’, Blake says. ‘Unlike straight serialized fiction, the plot of the *wovel* is determined by the readers. The fans vote after every installment, and the author spools the story out, every Monday [...] until the story is complete’” (“Groundbreaking”).

leges instantaneousness over gradualness. Audience decision making has also been incorporated into dramatic structure; Ayn Rand's play *Night of January 16th*, for example, allows a few members of the audience to act as a 'jury' and decide whether the protagonist (on trial for murder) is to be found guilty or not. This play thus "heighten[s] the public's interest by leaving the decision in its own hands and add[s] to the suspense by the fact that no audience, at any performance of the play, can be sure of its outcome." (Rand 17) Such communally generated storylines, or, in the case of Rand's play, endings, testify to the fact that FNs are not only relevant for single reader/players, but also for collaborative decision-making groups, who must pool their choice preferences and knowledge resources to create narrative.

4.6.2 Alternate Reality Gaming

Alternate reality gaming is a relatively recent genre of gaming based on the interactive collaboration and problem solving abilities of a large group of players – a modern, digital version of the scavenger hunt. ARGs are collective experiences that deliberately blur the line between virtuality and reality, evolving both on the Internet and within the everyday life of the players. Its deliberate blending of fiction and reality, its interactive and collaborative nature, and its use of multimedia lend the ARG an emergent and polyvalent structure that is determined by the actions of its players. Alternate reality games paradoxically deny their own status as artefacts and are based on the TINAG-aesthetic – TINAG standing for 'This Is Not A Game'. The game designers – or 'puppet masters' – strive to grant the players a game experience that is as close to and involves as much of their real life as possible, thereby generating a reverse mechanism of immersion. "In an alternate reality game", Szulborski describes the TINAG-philosophy,

the goal is not to immerse the player in the artificial world of the game; instead, a successful game immerses the world of the game into the everyday existence and life of the player. [...] The ultimate goal is to have the player believe that the events take place and characters of the game exist in his world, not an alternate reality. In a strange but very real way, the ARG creator is trying, not to create an alternate reality, but to change the player's existing world into the alternate reality. (31)

Though ARGs are "not necessarily a simulation of anything real", these games provide a "compelling immersive environment" where "people 'play' themselves in a different setting." (Johansen 104) Players are lured into the game not by overt announcements that a game is about to begin, but by covert and often mysterious clues reaching them via the media, e-mail, or telephone; such entry points

into the game are referred to as ‘rabbit holes’ in ARG-terminology.¹⁷³ Due to the interactive nature of the genre, alternate reality games are directly influenced by player feedback, constituting highly sensitive systems whose designers must constantly respond to the reactions of the players. In their bidirectional communicative structure, ARGs massively differ from retrospective narration (and, to some extent, even from the larger part of future narratives). This genre allows, indeed is constructed around, reader/player feedback, as spontaneous actions and decisions of the players can strongly influence the development and outcome of the narrative. In some cases, such a direct feedback structure can create quite significant problems for the game designers; for example, the cloudmakers of *The Beast*

created what they believed were three months worth of very difficult problems. The players solved them all in a day. The shocked game designers had to rethink their entire strategy, and ended up choosing to release new information on a weekly schedule. That way, they could create content and deliver it without trying to keep up with the collective force they had created. The players changed the entire story delivery and timing mechanism of the game, just by being eagerly involved. (Kim et al.)

The interaction between reader and text thus shapes and manipulates the emerging narrative in very concrete ways; in this fluid text-reader-author system, the makers of the game must constantly react to the reactions of the players. Unlike forms of digital textuality such as interactive fiction or hyperfiction, in which the interaction of the user with the system can affect the order in which she encounters narrative content, but never the system itself, ARGs are unique in that what users do can actually cause a change or shift in the game system as a whole. This feedback-loop interactivity arguably blurs the lines between author and reader, causing Szulborski to introduce the term ‘interactive authoring’, which suggests

173 In the case of the first large-scale commercial – and widely successful – alternate reality game *The Beast*, which was launched in 2001 as a viral marketing strategy for Steven Spielberg’s film *A.I.: Artificial Intelligence*, the rabbit holes took on three different forms. First, advertising posters and trailers for the movie listed the fictional name “Jeanine Salla” as “sentient machine therapist” among their credits; a Google search on this name provided access to several websites, including Salla’s own homepage at the fictional “Bangalore World University”, which is tellingly founded in 2028 – a first clue that this is no ordinary homepage (cf. Szulborski 96). Second, a telephone number appeared in one of the film’s promotional trailers, which, when dialled, generated an e-mail response to the caller containing the sentence “Jeanine is the key.” Third, advertising posters had the message “Evan Chan was murdered. Jeanine is the key” encoded in them. Through all of these rabbit holes, players gained access to the world of the game, which tried to solve the mystery of the death of the fictional character Evan Chan, a family friend of Jeanine Salla. While at the outset, the game took place and evolved only on the Internet, it later moved into the real world of the players, who were eventually able to have phone conversations with in-game characters and participated in rallies in New York, Chicago, and L.A.

an eye-to-eye position of reader/player and game designer. Going even one step further, ARG-creator Jane McGonigal observes that “ARG players literally write the rules of the genre, taking on a kind of co-creator status from the very start of each game.” (*This Might Be* 366) Indeed, ARGs are one of the first narrative forms which allow true user feedback, and the actions of the ARG players are constitutive to how the game will develop towards its conclusion: “One writer of ARGs characterizes the interaction between storymasters and players as being like jazz; the game must be loosely defined enough to improvise with the players, accepting major changes in content [...]. In a very real sense, the story of the game is undetermined at its outset.” (Kim et al.) This sense of structural openness is, of course, a major criterion of all future narratives; in alternate reality gaming, it is taken to a new level due to the intensive interaction between player and ‘text’. Here, the distinction between architecture, run, and protocol – between the deep structure of a text, its possible realizations, and the narrative imprint left behind by one particular run-through – becomes essential for any attempt at analysing the textual structure. Talking about ARGs *as* narrative depends on a clear distinction between the performance of the game and the narrative which emerges as a result of this performative action.

Alternate reality games can thus be considered as FNs in multiple ways. They are explicitly based on a continuation-by-choice pattern, which in this case acquires additional complexity through the large number of potential choice-makers within the player community. Players must work together to find solutions to the puzzles presented, and their performative involvement in the game (often including physical performances, such as rallies) directly influences its progression. As narrative that is open and able to bifurcate into potentially different (and genuinely unexpected) directions, alternate reality games can be considered simulative engines for text production. In the context of simulation, the TINAG-aesthetic proves especially interesting, since the denial of game and play (and thus of an artificially determined structure and rules) suggests real-life conditions and parameters that transcend those of hypertext and even the most immersive forms of video games. If ARGs are a sort of simulation of ‘real life’ (the word simulation being essential here, since ARGs are, of course, designed and written in a very specific way), then they approach true future narration very closely – the choices and decisions made are non-reversible, there are potentially indefinite numbers of continuations from each situation, and the levels of information at a given node may vary. Indeed, players may not even realize that they are at a crucial node until after the decision has been made, and this adds an additional dynamic to their choice behaviour.

At the very point of intersection between storytelling and gameplay, alternate reality games break through narrative’s retrospective temporal architecture in

order to expose the unfinishedness of the aesthetic products they revolve around, the potentiality or eventness of any given situation or story. In this, they might be said to mirror life more closely than narrative, concentrating on the process of becoming rather than on being. Regarding the status of ARGs as the newest form of storytelling within (or through) a gaming experience, it is no surprise that they are increasingly functionalized as forecasting tools. According to Jane McGonigal, gameplay and life must be ever more tightly connected to each other in order to create a satisfactory future. As a prolific ARG creator, McGonigal is acutely aware of the simulative potential of these games, which can, according to the theory she develops in her latest work *Reality is Broken: Why Games Make us Better and How They Can Change the World* (2011), teach us problem-solving strategies that are more than applicable to real-life dilemmas: “Compared with games, reality is too easy. Games challenge us with voluntary obstacles and help us put our personal strengths to better use.” (22) McGonigal’s central thesis revolves around the capability of gameplay to generate satisfying experiences of achievement, experiences that we often lack in ‘real’ life work. Rather than generating a society of isolated individuals driven by escapism, collective gameplay encourages, according to McGonigal, social productivity that is unrivalled in everyday existence. Games, and especially communal and collaborative forms of games, are thus “potent engines for creating and enhancing emotional experience [...]” (Chatfield). In their collaborative nature, alternate reality games simulate, through the TINAG-principle, gaming experiences that are based on exactly this sense of collective accomplishment, creating a narrative that emerges as a result of joint cooperation on a given set of problems.

4.6.3 Forecasting Games

The simulative aspect of alternate reality gaming is especially prevalent in *forecasting games*, which, as the name suggests, are concerned with forecasting future developments and pooling collective knowledge to find solutions, strategies and resources to problems facing the world in times to come. This is a somewhat more ‘serious’ approach to the ARG, as it tries to functionalize the collaborative playing dynamics of alternate reality gaming in order to create scenarios of real-world problems, such as economic crises, social upheaval, food and oil shortages, epidemic diseases, or natural disasters. Though the ludic aspect is still prevalent in forecasting games, thousands of players have taken them seriously enough to spend an enormous amount of time and energy in contributing to the scenario-building and solution-finding that these games are based on; *World Without Oil*, the first forecasting game launched by game designer Jane McGonigal in 2007,

generated 1500 blog entries, images, videos, and voicemails, and more than 8000 people played the subsequent *Superstruct* (2008). Forecasting games are unique types of FNs because they combine the aspect of multipath ‘storyplaying’ with topics of futurity, simulating the openness and undecidability of future occurrences through the generation of genuinely unpredictable and emergent narrative content by a multitude of storytellers. The central idea behind them is that the future is not something that merely ‘happens’ to us, but something which we can actively shape through decisions, actions, and problem-solving strategies. One way of trying out such strategies are collaborative gaming processes, which allow the run-through of potential scenarios in a safe, because ultimately inconsequential, space – in the context of the game, however, this space is made out to be extremely consequential, as the distinction between real life and gaming is blurred to the same degree as in ‘traditional’ ARGs: this is serious gaming in the very sense of the word. *Superstruct*, for instance, was advertised with the goal of “not just [...] envisioning the future”, but “inventing the future”, on the game’s website, which already points to the high degree of collaborative agency that the game’s makers envisioned for the playing experience it offers.¹⁷⁴

4.7 Where Will We Go From Here?

From a media-historical point of view, collaborative storytelling mechanisms constitute the latest variety of FNs up to date, and they blur the lines between narrative and gaming to an unprecedented degree. It appears as though their ludic quality renders them especially apt for implementing structural openness in a radical way, and this is not surprising considering that we, in the context of the NAFU project, have also identified virtual game spaces as the most fruitful soil for the staging of multiple continuations and reader/player agency. What could be the next step? Or, to put it differently: how far can FNs still go? One possible answer could be virtual reality, already envisioned by Janet Murray in *Hamlet on the Holodeck* as the fantasy of a medial environment which allows unconditional immersion into a virtual world: “the virtual world [is] full of interrelated entities,

¹⁷⁴ An even more overt example is the forecasting engine *The Future We Want*, launched in the beginning of 2012 to “collect ideas from around the globe that capture your dreams and aspirations for a better future” (<http://www.futurewewant.org/>), ideas that were to be presented at the United Nations Conference on Sustainable Development Rio +20 in June of 2012.

a world we can enter, manipulate, and observe in process.” (280)¹⁷⁵ As Ryan summarizes the possibilities of virtual reality:

In a VR system shaped after the Holodeck, the visitor experiences the narrative in a variety of ways: as a character in the plot, she lives her destiny; as coauthor of the script, she writes the lifestory of her character; as an actor, she impersonates her own character; and as a spectator, or at least as the beneficiary of the show, she is supposed to be entertained by her own performance. (*Avatars* 226–227)

Virtual reality is an enticing concept, and far from being a purely science-fictional phenomenon, as the increasing number of augmented reality applications during recent years reveals. However, this kind of superimposition of virtuality on life no longer depends on nodal structures or multiple continuations, but enhances the perception of the real world, in which we find ourselves living the most radical future narrative of them all – life itself. A further suggestion for the future of FNs may be the development of artificial dynamic narrative, meaning a hypothetical (non-human) device that is able to actively modify a narrative following the interaction with a percipient, beyond the bounds of a pre-conceived number of narrative options. The artificial intelligence drama *Façade*, created by Michael Mateas and Andrew Stern in 2005, is a first step toward such genuinely emergent and interactive storytelling. The reader/player of this drama takes on the role of a close friend of the text’s protagonists, Grace and Trip, a married couple whose relationship and personal troubles increasingly surface through the interaction of the user. While visually reduced (the figures and background are rather schematically conceived), *Façade* is revolutionary in that it allows non-scripted input from the user and reacts in a plausible manner. This gives the impression of ‘real-life’ interaction characterized by an unusually high degree of spontaneity and emergent behaviour, a FN whose nodal structure is so complex that it would be very difficult to map its structure in its entirety. *Façade* simulates real human interaction, and approaches the most radical form of narrating the future very closely. It seems as though the ‘openness’ of life is the ideal that FNs may strive for in the future, and while all types of these narratives are shaped and guided by a creating agent to some degree (they must be, or they would no longer be aesthetic artefacts), the reader/player will increasingly forget this guidance and feel as though she is acting in an unrestricted sphere of participation. We have

¹⁷⁵ The holodeck is a projection space for simulation that was first introduced on *Star Trek: The Next Generation* (1987) and combines “holography with magnetic ‘force fields’ and energy-to-matter conversions.” (Murray, *Hamlet* 15) This projection space thus simulates “an illusory world that can be stopped, started, or turned off at will but that looks and behaves like the actual world” (*ibid.*).

come a long way from the printed Choose-Your-Own-Adventure book, but what remains most fascinating about the genre of future narratives may not even be their medial development from the book to highly complex simulation systems, but the fact that they radically change our preconceptions of narrative *in any medium*, and that substituting the uni-linear presentation of events with nodes that enable multi-linearity preserves what is lost by the temporal sequence of past narratives: the sensation that not everything has yet been settled, that the future is ours to shape and experience.

5 Selected Readings of Future Narratives: From Print to Digiture

5.1 The Imaginative Exploration of Chance and Possibility: Paul Auster's *The Music of Chance* (1990)

To begin the analytical readings of selected textual FNs, I turn to issues of chance, choice, and gameplay in the novel. Such issues are not only relevant to the structural implementation of openness in FNs, but constitute thematic topics that are explored in a significant number of literary texts (this tendency has already been considered in Chapter 3.1.3). From 18th century novels such as the gambling novels of Henry Fielding (cf. Molesworth) to characters meeting by happenstance in Charlotte Brontë's *Jane Eyre* or Jane Austen's *Sense and Sensibility*, to post-modern experiments with chance and possibility in Michael Frayn's 'uncertainty play' *Copenhagen* (1998) or Luke Rhinehart's *The Dice Man* (1971), the potential of a given situation to develop into different directions due to gambling, chance, or personal choice, stands at the heart of the creation of fictional worlds. This chapter will consider a prominent postmodern example of this tendency: Paul Auster's *The Music of Chance* operates with metaphors of chance and gameplay in a very literal sense, by the inclusion of the chance-based game of poker into the plot (a game which is central to setting off the deciding chain of events that determines the development of the narrative), and in a more abstract sense, as the protagonists of the novel are constantly torn between trying to determine their own lives through mechanisms of choice and play, and being helplessly at the mercy of chance as they find themselves in a universe ruled by randomness. Structurally a completely uni-linear narrative, Auster's novel heavily thematizes the tension between causality, sequentiality, and chance in its protagonist's struggle to come to terms with his increasingly random (and, at the same time, increasingly determinate) existence: "the novel begins almost immediately by establishing chance as the operative force behind the narrative's trajectory." (Maydan 60)¹⁷⁶ Though dependent on past narrative's adherence to chronology and sequence and thus not *itself* a FN, *The Music of Chance* reveals itself as an intricate evaluation of both narrative's possibilities to reconcile linear sequence with chance happen-

¹⁷⁶ Shiloh has made a similar observation: "The opening sequence foregrounds the motif of chance; the choice of imagery suggests the inherent ambiguity of chance and foreshadows the sense in which chance will govern the protagonist's life. We thus learn that Nashe, the novel's main character, has taken to the road, and thereby opened himself up to the uncontrollable, unpredictable aspect of life" (160).

ings, and the human desire to narrativize a random existence into a meaningfully consecutive order. As we have seen in Chapter 4.1, the thematic focus on chance and situational contingency serves as a prototypical evaluation of what FNs implement into their nodal structure – namely, the openness of how things may develop in the future. Paradoxically, the ‘future narrative’ that the protagonists of Auster’s novel play (that is, their life) becomes less and less open and increasingly subject to external forces of seemingly random coercion.

Auster’s 1990 absurdist novel traces the gradual downfall of its hero Jim Nashe, who, at the outset of the narrative, finds himself left by his wife and responsible for a daughter that he cannot take care of himself; after his father unexpectedly dies, Nashe inherits a large sum of money with which he literally ‘pays’ for his freedom: he leaves his daughter with his sister, settles his debts, and buys a car with which he begins a journey across the U.S. During this aimless drive, his savings soon dwindle, and he picks up gambling with the help of a young player named Jack Pozzi. Their plan to win a high-stakes poker-game against the wealthy strangers Flower and Stone fails and they find themselves in a staggering debt, which Flower and Stone suggest they pay off by building a wall on their property. The building of the wall, a completely meaningless activity in itself, takes up a large part of the narrative, during which Nashe gradually resorts to a mode of indifferent acceptance, while Pozzi grows more frustrated and rebellious by the day. Pozzi’s attempt to flee from the property results in his brutal murder, and Nashe dies some time later by a car accident which may or may not have been a suicide – the novel ends on this open question.

The main protagonist of the novel, Jim Nashe, realizes early on in the novel that

[i]t all came down to a question of sequence, the order of events. If it had not taken the lawyer six months to find [Nashe], he never would have been on the road the day he met Jack Pozzi, and therefore none of the things that followed from that meeting ever would have happened. (1)

Nashe here attributes a clear ‘if-then’ structure to his experience, tightly linking events (which are completely random in themselves and have no obvious connection at all) to each other to form a chain of causality, a chain so absolute that one single event determines everything that follows, which, in turn, becomes an unavoidable string of occurrences. In this sense, he is narratively (re-)arranging the course of his own life, reading his existence *as* a meaningful story – as has been posited in the introduction of this study, anything can be read *as* narrative, and Nashe demonstrates this quite vividly in this initial passage. He reveals himself as a highly conscientious narrator, who is aware of the need for retro-

spective causality in order to narrativize his existence. He also, while creating the story of how things came to be the way they are, retrospectively engages in counterfactual speculation about how things could have turned out differently even before we have learned of any of the 'things that followed'. Indeed, the first pages of the novel are nothing but an extensive exercise in cognitive counterfactuality, as Nashe evaluates what *could* have happened and contrasts this against the randomness of the events that actually *did* happen. He thus begins his narrative by mentally creating

[...] not one, but two worlds, one hypothetical and one real, their difference being primarily an effect of timing. But that is not all. Their difference is not merely a matter of sequence, as if both worlds are comprised of precisely the same events, differing only in their order, because a change in the sequence of events amounts to a change in the events themselves. Nothing short of a theory of the event is proposed, whereby each occurrence must be seen to emerge as a part of a unique environmental totality, just as the event itself lends shape to that environment and what it can become. (Maydan 63)

That is, all events are reciprocally dependent on each other for their existence, and Nashe concedes early on that "[t]oo many things had been set in motion during the past five months, and not even the money could stop them anymore" (2), attributing a strange kind of kinetic energy to the unfolding of events, which are an 'inevitable' force that rolls over his life, he himself being reduced to a passive bystander (he will uphold this role for most of the ensuing story). In hindsight, Nashe establishes the randomness of life, rather than his personal actions, as the decisive principle determining the sequence of events he has experienced. Within the narrative universe of *The Music of Chance*, chance becomes the operating force behind all situational developments, and "[s]equence [...] become[s] a force in its own right, somehow responsible for affirming the chance-like nature of what actually occurs." (Maydan 62) This surrender to sequence stands in stark contrast to the sense of freedom Nashe experiences after his wife leaves him, the event which triggers all other episodes within the novel and suddenly leaves him suspended in a seemingly boundless realm of personal liberty: "It was a dizzying prospect – to imagine all that freedom, to understand how little it mattered what choice he made. He could go anywhere he wanted, he could do anything he felt like doing, and not a single person in the world would care." (5–6) This freedom, though, turns out to be utterly meaningless and ineffectual. We can thus trace a development from the promise of unlimited individual freedom to the complete subjugation of Nashe to external governing forces in the novel: "The world of freedom and chance events in the early part of the novel is translated into a world of restrictions and a fixed, determined course of action." (Woods 158) Only by

attributing the experiences he is forced to undergo to a fate larger than himself does the free-fall of Nashe's life become bearable – and tellable.

Nashe's confrontation with individual choice at the outset of his story is metaphorically underlined by the forking-path metaphor which resurfaces at various points throughout the text.¹⁷⁷ In the beginning of the narrative, Nashe is driving his Saab across the country and finds himself at a literal fork in the road, as he misses the freeway entry and then deliberately diverges from his intended course, choosing a different route than the one he had originally planned for his travels:

He had told [his family] that he was planning to go back to Massachusetts, but as it happened, he soon found himself traveling in the opposite direction. That was because he missed the ramp to the freeway – a common enough mistake – but instead of driving the extra twenty miles that would have put him back on course, he impulsively went up the next ramp, knowing full well that he had just committed himself to the wrong road. (5)

The very first change in course is thus due to coincidence, a temporary glitch of missing the freeway ramp, and this seemingly trivial mistake reveals itself to be consequential for the very rest of Nashe's life: it is, figuratively speaking, the crucial node of his existence, at which he chooses the wrong path that leads to the subsequent events spiralling into his eventual downfall, a process which he is neither able nor willing to stop. The figure of choosing between two possible routes signals the significance of choice making for the whole of the novel; though Nashe rejects any personal responsibility for his actions (“a common enough mistake”) and even asserts that “there was no difference, [...] both ramps were finally the same” (*ibid.*), the apparent haphazardness he attributes to his selection is not at all reconcilable with his earlier assertion that “it all came down to a question of sequence” – that the order of events, in other words, is crucial for the unfolding of subsequent happenings. His initial decision at the forking paths of the freeway will, in any case, by the last of its kind for quite a while: the road as a space where things can ‘happen’ in the sense of Bakhtin's *chronotope* is only accessible to Nashe in the early stages of his tale; once he enters the contract with Flower and Stone to build the wall, all possibility of intentional or spontaneous change is lost. The absolute negation of individual agency or choice in this situation is emphasized by the fact that there is literally no road leading from the house of Flower and Stone to the meadow, and neither is there a road that leads away from the property – there is no escape, no possibility or optionality in this

¹⁷⁷ Also consider *Shiloh* for an interpretation of this forking-path image in Auster's novel: “The dual nature of chance is metaphorically conveyed through the setting of the road – traditionally associated with the unpredictability of accident – juxtaposed with that of the castle and the wall, which suggest the finality of destiny” (159).

realm. Only after Nashe has left the property does the potential for individual choice return, as he once again finds himself travelling on a road, driving towards liberty but also toward his own death (or are these even one and the same?). In this final situation of his life, he realizes the utter impossibility of influencing the inevitable, and so his last choice is to embrace it: "There was no time to stop, no time to prevent what was going to happen, and so instead of slamming his foot on the brakes, he pressed down even harder on the gas." (198)

The open ending of the novel – we are left with the image of Nashe closing his eyes to the headlights coming towards him – is a final commentary on the ambivalent relation between cause and effect in Auster's novel. Whether the car crash has Nashe's death as its consequence is not explicitly stated (though it is, of course, heavily suggested), and likewise, the cause and effect mechanism is unhinged with respect to Nashe's and Pozzi's imprisonment. Why are they held captive, and why do they have to build the wall? Of course, the immediate 'reason' for this is their loss of the poker game to Flower and Stone, but the deeper motivation for their captivity remains enigmatic until the end: "The enslavement of Nashe and Pozzi appears to be an intentional action, yet without a specific subject, a result without a clear demonstrable cause. Nashe and Pozzi are unable to work out the consequences of their actions, or whether their actions actually have consequences or results." (Woods 154) Because they lack an understanding of any determinable cause-and-effect structure while imprisoned, the individual agency of Nashe and Pozzi is reduced to a bare and repetitive minimum during this period: "Chance disrupts the logic of causality, and there are now no reasons for Nashe to do one thing or another: chance opens up the possibility of anything, or indeterminacy." (Woods 146) Their work on the wall, which is exceedingly strenuous both in a physical and an emotional sense, is utterly meaningless, reduced, despite its toil on the workers, to a completely 'empty' act, and it leads to no effect that can be perceived by Nashe and Pozzi (or, for that matter, by the reader). The laws of causality are completely upended in the world of this novel. What is more, Nashe and Pozzi must surrender to a fate that has been predetermined for them: the new contracts prolonging their stay in the meadow are awaiting them after they have finished their task and have already been written *before* they have decided how they want to continue: "Both copies had already been signed by Flower and Stone, and as far as Nashe and Pozzi could tell, everything was in order. That was what was so strange about it. They hadn't even come to a decision until last night, and yet here were the results of that decision already waiting for them [...]. How was that possible?" (138) This is the culmination of their subjugation to forces larger than themselves: not only are they condemned to utter submissiveness in the course of building the wall, but they are no longer able to take any influence on how their lives will develop. Nashe's and Pozzi's imprison-

ment and the building task are ultimately revealed as a horrible game, and they are both the players and the subjects played with, being denied the chance of ever winning or even deciding upon the rules. This “notion of the aleatorical” (Woods 154) structures the novel from beginning to end – the dilemma of Nashe and Pozzi is, of course, generated by a game, the poker game which they lose to Flower and Stone.¹⁷⁸ Framing the text, gameplay also surfaces again at the close of the novel, where Nashe plays a game of pool against his guard Floyd. While living in the field, Nashe and Pozzi frequently play cards, and re-live the deciding card-game which has ‘caused’ them to be in this situation. Gameplay is what they started out with, and gameplay is all they are left with. Indeed, Shiloh has identified the moment of gaming as the central hinge for plot development in *The Music of Chance*, arguing that “[t]he shift from the road to the castle, the turning point of the story, is the poker game.” (159) The game metaphor works on so many levels of the narrative that it turns into the central organizational principle of the text as a whole: ultimately, all there is in *The Music of Chance* are games, games played for money, games played for freedom, and games played for survival.

Teleology, the sense of working toward a goal, is upended along with causality in the meadow. Though Nashe initially attributes a manifest purpose to the building of the wall, sensing that it “would not be a punishment so much as a cure, a one-way journey back to earth” (100), this idea of his toil possessing a comfortingly procedural, even therapeutic, function quickly loses its force. Even when Nashe and Pozzi have ostensibly ‘completed’ their task by finishing the wall, Flower and Stone extend their debt in order to force them to continue working. A sense of purpose returns only to Nashe’s existence after Pozzi has died – he craves revenge for his companion’s death. At this moment, their roles are completely reversed, as Nashe is the passive part during their mutual imprisonment, while Pozzi continually rebels against his state (and ultimately pays for this rebellion with death). Nashe’s passivity, which at times even resembles paralysis, begins as soon as the decision to play against Flower and Stone has been made:

Nashe understood that he was no longer behaving like himself. He could hear the words coming out of his mouth, but even as he spoke them, he felt they were expressing someone else’s thoughts, as if he were no more than an actor performing on the stage of some imaginary theater, repeating lines that had been written for him in advance. (33)

Almost glad to relinquish individual agency, he “easily slip[s] into playing his part” (*ibid.*), and surrenders to his new role as submissive bystander. During the

¹⁷⁸ Likewise, Dotan has noted that “the fictional world of *The Music of Chance* resembles a game, a huge and incomprehensive game of ‘chance’ [...]” (166).

all-decisive poker-game, he sits behind Pozzi and keeps still, realizing that “it would be bad form to wander around the room while they [Pozzi, Flower, and Stone] were playing.” (84) Unable to intervene in the increasingly dramatic playing situation, he is reduced to a helpless witness as his and Pozzi’s fates are determined. He is no longer a player in the future narrative of his own life, but a receiver of a story that is being written *for* him. Pozzi, on the other hand, takes on the function of a catalyst from the start of the game. For Nashe, he initially represents “simply a means to an end, the hole in the wall that would get him from one side to the other. He was an opportunity in the shape of a human being, a card-playing specter whose one purpose in the world was to help Nashe win back his freedom.” (33) Soon, however, it becomes clear that Pozzi’s function as a vehicle for the generation of active sequences far exceeds his role within the card game. Immediately after Flower and Stone have proposed their idea of building the wall as repayment for the gambling debt, Pozzi resolves to take action: “‘Come on, Jim, let’s get out of here. These two guys are full of shit.’” (97) This – quite understandable – reaction triggers another bout of passivity on the part of Nashe, who feels that “the more vehemently the kid acted, the more clearheaded Nashe found it necessary to become. There was no doubt that things had taken a strange turn, but Nashe realized that he had somehow been expecting it, and now that it was happening, there was no panic inside him.” (*ibid.*) Nashe’s submissive compliance enrages Pozzi, who rebels against their absurd task from the start, while Nashe, upon arrival in the meadow, finds it “ridiculous to worry about anything. Just take it as it comes, he told himself. Just be glad you’re alive.” (108) Though they settle into a quiet routine of work and companionship, Pozzi’s restlessness continually broods underneath the surface of his apparent dedication to Nashe, and he is increasingly aware that “he was the victim of a terrible injustice, that his rights had been abused in some monstrous, unspeakable way.” (120) He becomes obsessed with replaying the poker game in his mind to find out where he had gone astray; the search for this fictive ‘retrospectively realized node’ where things have taken a wrong turn frustrates and agonizes him to the point that he blames the loss on Nashe, who had, despite his resolve to sit still during the entire game, gotten up once to go to the restroom: “‘Hour after hour, you sat there right behind me, breathing down my neck. [...] It was all so perfect. We had everything balanced, all the wheels were turning, and it was beautiful, man, really beautiful. And then you had to get up and leave.’” (126) Nashe’s unexpected absence causes a disruption in the perceived equilibrium,¹⁷⁹ and so even this one seemingly trivial

¹⁷⁹ The reference to the Nash equilibrium is implied, of course, by Nashe’s very name. In game theory, the Nash equilibrium is a “set of strategies, one for each player, such that no player has incentive to unilaterally change her action” (Shor), which means that the game situation is one

action that Nashe takes is too much, has too much significance and momentum. In a sense, Nashe must keep passive and still in order not to disrupt the universe's course of events – the few actions that he *does* perform (the swerve on the road, the leaving in the middle of the game, driving his car against the lamp-post) are loaded with so much kinetic potential that they cause radical alterations in his world, alterations which are beyond the scope of what he can understand.

With Pozzi dying in the ambulance after he has been beaten to near-death following his attempted escape from the field, Nashe suddenly regains his resolve to rebel against his situation: “He did not hesitate after that. [...] His only thought was to get out of there. He would never have a better chance to escape, and he wasn't going to squander the opportunity.” (159) Though this first attempt at escape fails, his newfound agency causes a growing restlessness to “sprout inside him, proliferating like some wild, mutant flower, an ecstatic burgeoning that threatened to overrun the entire field of his consciousness.” (168) The need to avenge Pozzi's death and his own predicament is channelled into the desire to kill the grandson of his guard Murks, a desire which overpowers him to a degree that he feels as though “the boy would be dead within the next hour if he did not find a way to stop himself.” (171) Though he is eventually able to subdue this craving, his budding need for activity remains, and he begins to request concessions from Murks, including the meeting with a young prostitute who had already visited Pozzi and him shortly before Pozzi's death. On the day of his release, he automatically turns back to gameplay as a method of triggering events and wins a game of pool against Murks. This final victory then leads swiftly to his death. Set free to decide for himself again, Nashe decides upon his extinction; it seems as though he has realized that he can no longer exist in a world of individual choice, a world in which there are options and alternatives. Thus, he escapes the toil of further decision-making twice: the first time, after he has lost the poker game, where he experiences “the relief at no longer having to make decisions” because his “part is now determined for him, mapped out, firmly routed and rooted” (Woods 149); the second time, after he steers the car toward the gleaming lamp post – an action which can have one final outcome only.

Deeply connected to the notion of gameplay is that of simulation; both concepts share the surrender of structured, retrospective representation to the generation of an undetermined outcome. Simulation is also an important aspect within the world of Auster's novel, both on a literal and metaphorical-structural level. Nashe and Pozzi encounter two simulative environments during their contact

of mutual stasis since none of the players can improve on her situation. In this sense, it can be taken as a general metaphor for the situation that Nashe and Pozzi find themselves in while working in the field.

with Flower and Stone. The first is the “City of the World”, a miniature model of a city with “crazy spires and lifelike buildings, [...] narrow streets and microscopic human figures.” (71) Stone explains his affinity for this model by referring to its simulative potential: “‘I like working on it’, Stone said, smiling tentatively. ‘It’s the way I’d like the world to look. *Everything in it happens at once.*’” (72; emphasis added) Though completely static, the City of the World model suggests both sequential temporality and simultaneous activity: “If you look at the Prison, you’ll see that all the prisoners *are working happily* at various tasks, that they *all have smiles* on their faces. That’s because *they’re glad they’ve been punished* for their crimes, and now *they’re learning* how to recover the goodness within them through hard work.” (72–73; emphasis added) Stone’s attitude towards his model illustrates the value that he places on simulation as an educational tool; the City of the World simulates, for him, a perfect society, “a utopia – a place where the past and future come together, where good finally triumphs over evil.” (72) In this way, the wall-building of Nashe and Pozzi in the field is also a simulative experiment, as the two men are placed within a contained, regulated space under closely monitored conditions: “Once out in the meadow, the text takes on an almost laboratory-like experimental feel.” (Woods 154) The outcome of this experiment is both determined and undetermined – according to plan, Nashe and Pozzi will stay in the environment forever, but all of their actions to escape have consequences totally unforeseeable to them. The twofold focus of this novel on simulation – both through the miniature world and through the happenings in the meadow – testifies to the fact that the conditions that shape human existence are examined here in specific environments that reduce the factor of ‘external influence’ to a minimum. In stark contrast to the happenings *outside* of the property, in which chance seems to be the most influential factor shaping events and situations (again, think of Nashe’s random travelling and the decisive card game), the world of Flower and Stone is tightly controlled and denies all personal freedom or spontaneous agency to its inhabitants. Like the figurines in the City of the World model, Nashe and Pozzi are puppets subjected to the will of their captors, and their gradual realization that this is so makes this novel so utterly harrowing.

The Music of Chance is a reflection on the connection between necessity and chance, and on the contingency of human existence. What the reader/player of a FN is granted – the possibility to evaluate different options, to choose from more than one alternative – is gradually denied to the characters of this novel, who surrender to the arbitrary forces of an environment they no longer understand. Only in death do they regain freedom, and death permits them a final choice, the choice to escape the bizarre situation they have become entangled in (both eventually choose death over the continuation of life in the field). The consequential-

ity of decision making, which is taken away from Nashe and Pozzi during their entire stay in the meadow, thus returns only at the moment where they decide to pay the ultimate price for freedom.

5.2 Pick Your Own Path, Then and Now: An Inside Look at Choose-Your-Own-Adventure

The genre of Choose-Your-Own-Adventure programmatically declares reader participation even within its title. CYOA has been examined as a structural phenomenon in Chapter 4.3.4, focusing on issues such as agency, immersion, teleology, and choice-mechanisms. A comparison of two ‘classical’ gamebooks of this format – one from its early stages, and one published recently – evaluates this phenomenon from both a diachronic and synchronic perspective, tracing the development of multipath reading in terms of structure, content, and media history while devoting close attention to formal similarities shared by the narratives. CYOA-narratives are, from a structural perspective, one of the most archetypal forms of future narration within the print medium, and their functionalization of continuation-by-choice through the reader/player has proven essential to pave the way both for hypertext and for computer gaming. As such, they provide valuable territory on which to study the effects of nodal situations, reader choice, and agency, though they do not possess the ‘literariness’ of more complex multi-linear novels. That is, they are primarily interesting because of their formal configuration and their implementation of reader decision making within a binary either-or organizational paradigm, and less so concerning the actual events that make up the plot (they are, after all, books for children and the simplicity of the plot often testifies to this fact). Rarely taken seriously enough to be the subject of study in their own right (exceptions are Angileri and the lengthy online essay by Swinehart), Choose-Your-Own-Adventure tales are a much underestimated media-historical phenomenon within the corpus of print fiction, and deserve to be examined more closely by way of the two case studies presented in what follows.

5.2.1 Edward Packard, *The Cave of Time* (1979)

First in the original Choose-Your-Own-Adventure series published by Bantam Books, *The Cave of Time* offers a variety of choices and endings, putting the reader into the second-person position of ‘you’ who, as the back cover of the original edition promises, “decide[s] how the story comes out.” Though struc-

turally less advanced than later books in the series, this initial volume already uses the idea of continuation-by-choice to interesting effects, including the alteration of both temporal *and* spatial categories through the selections of the reader/player: individual decision making is signalled to matter in this textual universe right from the start. In this, *The Cave of Time* differs significantly from most attempts at multi-linear narration in print fiction, which, though potentially more advanced in terms of plot, aesthetic density, and semantic complexity, generally fail to generate meaningful choices regarding the consequences on the fictional universe presented: in multipath novels such as Cortázar's *Hopscotch* or Pavic's *Dictionary of the Khazars*, what changes with a reader's acts of selection is only the *order* in which the narrative segments are encountered, and not the development of the storyworld itself (the novels share this trait with many hyperfictional texts).¹⁸⁰ Though *The Cave of Time* is, as the first CYOA-book, limited in several ways (these limitations shall be evaluated in the following), it demonstrates the potential of the genre to inscribe a comparatively high degree of nodal power into an arguably simple (because completely binary) nodal structure. The role of gamebooks as predecessors of digital computer games becomes patently obvious here, as the status of the storyworld is directly affected by the decisions of the player in the early hard-copy format of CYOA; in these books as well as in video gaming, the experience of agency is largely a result of the implementation of meaningful choices for the storyworld and the player's position within it. Enabling choices that matter proves to be the central advantage that CYOA books have over most printed FNs when it comes to creating a satisfying reading experience, and this is no small advantage by any means.

The dominant theme of *The Cave of Time* is, as its title suggests, time travel. Setting out from familiar territory – the fictional 'snake Canyon' close to the ranch of the protagonist's uncle – the reader discovers a mysterious cave entrance looking "as though a recent rock slide has uncovered it." (2) This newfound opening – also illustrated as a looming black hole amid a ragged rock formation – serves as the entrance into the storyworld, and will be continuously revisited in the course of the tale(s) to permit ever new time travelling experiences.¹⁸¹ As a topological opening into the unknown, the cave and its tunnel are, of course, an apt metaphor for the book's overall structure, which turns out to be an equally

180 An exception is Madsen's forking-path novel *Days With Diam*, discussed in Chapter 5.3.

181 From the beginning of their appearance, CYOA-books have included illustrations, which, besides their general appeal to children, also further immersion through visuality – as early predecessors to the visually much more advanced form of the video game, they already combine narrative and image to achieve a greater sense of engagement with the storyline.

“strange place” (3) for any reader used to the traditional (retrospective, uni-linear) narrative form. As the protagonist enters the cave and the reader/player enters the text, any and all (geographical, topological, meteorological and *narratological*) conventions are upended – upon exiting again, the ‘you’ realizes that day has suddenly turned into night, and what was before a “slim crescent in the sky” has now grown into a full moon (*ibid.*). The impossibility of this immediate day-to-night transition is the first clue that this is no ordinary world, despite its surface resemblance to what we conceive of as ‘reality’. In the second bifurcation (4), the trail leading back to the ranch has unexpectedly metamorphosed into “a dried-up river bed” and the surrounding landscape has been radically altered by heavy rainfall which has mysteriously desiccated again: “While you were in the cave, torrents of water have washed out the trail; yet there is not so much as a puddle left.” (*ibid.*) This suggests, once more, a passing of time that is disproportionately longer than the passing of time *inside* the cave (a few hours, presumably), pointing toward the dissolution of realistic temporal categories effected by the traversing of nodal situations: internal story time shifts as the reader’s position shifts within the textual construct. The reader encounters two options after having ‘exited’ from the first block of text, and must revise her original and conventional notion of narrative, which has changed to accommodate choice and optionality: “If you decide to start back home, turn to page 4”, or “If you decide to wait, turn to page 5.” (3)

In the ensuing story strands, the ‘you’ of the reader/protagonist travels virtually without limits – all laws of space and time are dissolved in the cave, and the subject of the story can thus indulge in a seemingly boundless journey across historical and geographical terrain. We pass from the ice age to the middle ages, colonial Boston to the Jurassic age, and from the desert to spaceships to underwater worlds. This enormous span across temporal and spatial dimensions suggests the fascination of this first Choose-Your-Own-Adventure text with potentiality and possibility in any form – also mirrored in the high number of available options and endings (39 in total) that the text offers. Interestingly, fictional and historically ‘real’ events are freely interspersed; among the factual events of history are the building of the Great Wall or the sinking of the Titanic. Especially in the latter case, the book plays with the (prospective) knowledge of the ‘you’, who, coming from modern time, already knows the outcome of the Titanic’s fatal journey; in one of the possibilities for continuation, she attempts to prevent the catastrophe: “Could you change history and save hundreds of lives by warning the captain that the ‘unsinkable’ *Titanic* is destined for the bottom of the Atlantic?” (68) Pleading with the captain, however, is useless, and the protagonist can do nothing but “watch the great *Titanic* slip beneath the waves – with 1500 people still aboard.” (69) What could be considered as a

fictional ‘retrospectively realized node’ for the historical characters in the book (i.e., they will realize the consequence of their decision only after it is too late) is a ‘mock node’ for the reader/player, who encounters a choice that is, from the start, artificial because ineffective. History takes its course, and no degree of textual openness can alter past events: the possibility of writing alternative history is lost in *The Cave of Time*. This raises questions about the relationship between contingency and determinism within the world of this book, which suggests a high degree of individual activity on the part of the reader/player, but contrasts this with the unwavering linearity of historical development, pointing toward the limits of player agency, as the player can witness and explore, but ultimately not change events. Her freedom regarding spatial and temporal movement – she can ‘go’ almost anywhere and experience vastly different time periods – is thus strongly counteracted by the ‘real-world’ parameters of history as re-told in the novel.

Structurally, *The Cave of Time* features a classical arborescent nodal pattern with unidirectional edges. As is characteristic for such tree structures, no reversibility or cyclical movements within the nodal structure are possible.¹⁸² This is also explicitly stated by the voice of the ‘game master’ in section one, who alerts the reader that: “Remember – you cannot go back!” (1) There are very few intersections between the individual narrative paths; thus, it is rarely possible to ‘cross’ paths into another story strand, again highlighting the strong degree of consequentiality inherent in each decision: the reader/player, having decided on a continuation, must live with the results of this decision without being able to leave the track on which she is currently running. The individual paths are very short, allowing for the traversal of three to five nodes on average before an ending point is reached. This high number of endings results in a noticeable hampering of narrative development, as no real ‘story’ is allowed to unfold during the short sequences. Moreover, the book offers as many as four different choices per nodal situation, providing the reader with a surplus of optionality disproportionate to the brief story segments that develop in between nodes. This proliferation of choices and endings thus works as a detriment to the generation of a satisfactory reading experience, and spawns the suspicion that early CYOA-books are too fascinated with possibility to truly immerse the reader/player in a story. The reader, to secure any reading time at all, must continually trace her way back to the last bifurcation and retry, or go all the way back to the initial fork and choose a new path from thereon, comparable to an incessant rewinding of a tape to start over. Clearly, *The Cave of Time* indulges in the number of options

¹⁸² Of course, as has been discussed in Chapter 3.5, a breaking of the script’s rules is *physically* possible in CYOA books, but will probably make for a nonsensical reading experience.

and endings it can provide, and favours a high degree of participatory activity over a high degree of story immersion. This lack of narrative development has retrospectively been criticized even by the makers of these books, who conceded that they

were burning up story lines like crazy with all of those different endings. And it was fun, but even if it only took six, seven pages to get to an ending, there wasn't a lot of room for character development, or plot development, or all the kinds of descriptive phrases that you need to build a scene. (Maliszewski)

The factors of choice and consequentiality thus hold a somewhat problematical status in this first CYOA-text. While the majority of chapters present the reader with a decision situation at their end, a total of sixteen chapter endings offer no choice as to how to continue. In these cases, the reader only has the option of turning to a specified page, and we can no longer speak of nodes at all, as these are simply directions on where to go next and enable no bifurcation. Likewise, the consequentiality of individual ending points is often arbitrary, as it is frequently not immediately apparent that the close of a certain chapter *must* necessarily constitute an ending to the story; this is the case, for example, in section 110, in which the protagonist has ended up as a printer in the eighteenth century; the section closes with the observation that “[i]t begins to look as if the Eighteenth Century is a pretty good time for you to be alive.” This implies no strong sense of closure and could equally well be the beginning of a whole new set of bifurcations and adventures; in order to signal its status as an ending point, this section is marked, as are all other endings, with the words “The End.” The unsatisfactory and contrived feel of many endings in *The Cave of Time*, which can, as the user ‘stevesterling’ admits on a webpage commentary on the book, appear “irritat[ing] due to their lack of depth or explanation” (Katz), once more testifies to the drawbacks of privileging of formal multiplicity over narrative necessity. The narrative comes to a halt in order to enable a re-try and potential optimization of the reading path, but the sense of inadequate closure resulting from this cannot outweigh the potentially invigorating effect of being allowed to play out many different possibilities.

Experiencing a satisfying sense of consequentiality while playing the adventures of *The Cave of Time* is further undermined by the fact that in some cases, two alternative endings are presented side by side on neighbouring pages, so that the reader will immediately know that her choice is ultimately ineffectual, as either decision will effect a termination of the reading/playing process. User ‘DavidSky’ has noticed this “irritating tendency that I don’t think crops up in any other CYOA book – different choices lead to adjacent pages, thereby spoiling the

surprise of where choosing differently would have gotten you.” (Katz) When both options lead the reader into a ‘dead end’, and when this is immediately made visually apparent by the words “The End”, the potential of generating suspense through offering choice situations decreases significantly. This can be considered a pitfall of early experimentation with continuation-by-choice in print narratives, but at the same time, once more signals toward the medium-sensitivity of multipath narration in general, as the print format involves a much higher degree of presence and then digital media, in which what is not chosen is automatically also invisible to the user. Kolb’s characterization of hypertext as “a landscape that cannot be seen all at once” (323) points to exactly this visual inaccessibility of informational content in the digital realm, whereas, in conventional print media, an either-or-choice does not automatically veil the unselected option – *The Cave of Time* serves as case in point. The nature of the printed book as an artefact of presence (discussed at length in Chapter 3.1.2) becomes awkwardly obvious here, and the materiality of the medium patently works against the implementation of openness in the sense of offering unpredictable outcomes. Though this weak point of CYOA narratives was soon identified and corrected, the physical status of the book form certainly plays into the possibility of presenting divergent results of a choice.

Despite these obvious shortcomings regarding the generation of consequentiality and readerly agency during individual reading performances of the architecture, the text *itself* heavily thematizes and underlines the idea of consequence as a central aspect of the reading/playing experience. An animated and drastically excited narrative voice advises the reader in the first section – aptly entitled “WARNING!!” – that she must “not read this book straight through from beginning to end!” and that her “choice may lead to success or disaster!” This proclamation of choice is also connected to the irreversibility of options: “Remember – you cannot go back! Think carefully before you make a move! One mistake can be your last ... or it *may* lead you to fame and fortune!” (1) Of course, such a dramatized announcement is partly owed to the fact that this is a children’s book, the likes of which often feature an overemphasized diction, but it also suggests the clear focus on consequence which this – and all other – CYOA narratives promote as one of their key attractions for readers who want ‘more’ than a regular story. The possibility of shaping the narrative experience by individual choice is presented as an enticing option, and though the text itself falls noticeably short of keeping its promise of agency, it signals its status as multipath narrative through explicit references to its rule system. This, again, is typical for printed FNs, which, as has been discussed in Chapter 3.11, *must* openly signal their rules of operation in order to generate a meaningful engagement with their nodal structure (if the reader were not prompted at the end of each chapter to ‘turn to page x or y’, she

would presumably adopt the rule system of a uni-linear narrative text and read it straight from beginning to end). The fact that *The Cave of Time* so energetically pronounces its structural possibilities testifies to its position as a divergence from conventional storytelling, and is emblematic for the self-referentiality of hard-copy FNs as a whole. Indeed, a heightened awareness of the CYOA-format is demonstrated in section 57, which features a meta-reflection on the genre itself. Here, the protagonist encounters a “computer terminal that enables you to select from over 10,000 possibilities. There are even films where *you* are the main character and *you* can make choices as to what will happen next in the story.” (57) This digital version of a gamebook, a prototypical reflection of hypertext, is quite literally a ‘hyper’-version of printed Choose-Your-Own-Adventure, the extremely high number of possibilities (arguably unrealistic even for any advanced digital narrative) once more illustrating the privileging of *quantity* over *quality* regarding available continuations – the very pitfall which makes multipath narration in this early CYOA so problematical.

The overall nodal power in this first CYOA-book is comparatively low, and once more testifies to the fact that a high number of possibilities is not, by any means, indicative of the degree of consequentiality inherent in possible choices. Even though the decisions of the reader/player directly affect the storyworld and her role within it – and, indeed, her chance of survival in this storyworld –, the hampering of story development and the material ‘glitches’ such as the counter-positioning of outcomes on adjoining pages render *The Cave of Time* as a testing out of possibilities rather than an entirely successful gamebook. The initial Choose-Your-Own-Adventure novel experiments with the opportunities that implementing a forking-path structure into narrative affords to the reader, but it fails to create a truly satisfying narrative experience. The realization of a high degree of participation (i.e., giving the reader many choices and many endings) effects a self-conscious play with alternatives rather than any long-term engagement of the reader in the nodal structure. Contrasting this gamebook with a much later variant in what follows, it will become obvious how much this genre has hitherto been influenced by medial developments such as the advance of the computer game and digital fiction.

5.2.2 Anson Montgomery, *The Golden Path Volume One: Into the Hollow Earth* (2008)

First in a recently initiated spin-off series of the classical Choose-Your-Own-Adventure books, Volume One of the two-part series *The Golden Path* was published in 2008 by Chooseco, the dominant publisher of CYOA-fiction since

2005. Appearing in the glory days of complex video gaming, this new series attempts to trace a way back to the original enjoyability of CYOA-stories, while, at the same time, adapting itself to contemporary media use and conventions. Employing the concept of a cross-volume storyworld, *The Golden Path* novels not only offer bifurcations *inside* of the respective volume, but also include continuations that spread out to the other volume of the series. Thereby, *The Golden Path* inserts itself into the practice of creating an ‘additive’ storyworld, in which multiple texts contribute to the creation of a coherent and complex fictional universe that underlies its own rule system.¹⁸³ This mode of storyworld conception is prominent, for example, in video gaming and film, and thus it is not surprising that this CYOA-series, by being both a (formal) predecessor to and, chronologically speaking, a successor of video games, adapts it for its own purposes. Featuring choices that reach beyond the boundaries of the book and to Volume 2 of the series (*Burned By the Inner Sun*, published in 2008), *Into the Hollow Earth* contains both ‘internal’ and ‘external’ nodes. This nodal configuration, besides being a clever marketing strategy (as the reader, in order to trace all possible continuations, must obtain both volumes of the series), suggests a storyworld that is richer in dimension and possibility than what is presented within the boundaries of the specific book. The sense of continuity between different parts of the storyworld is extremely high because they are *formally* connected by continuations; rather than just placing different narratives within the same fictional universe, this CYOA-series implements structural linking to create a book-transcending fictional realm which is determined by one set of established rules.

In comparison to the early CYOA-variant discussed above, the plot of *Into the Hollow Earth* is structurally far more complex and internally coherent. At the same time, as is typical of this narrative format, it is still clearly subordinate to the formal experimentation implemented through the bifurcating structure of the book. This subordination manifests itself in, at times, outrageously improbable or coincidental events: three high school friends enter a complex and dangerous network of government conspiracies, kidnapping, and esoterically charged secrecy after having worked on a mysterious pottery shard they have found at an archeological site in Carlsbad, New Mexico. Their journey takes them into the earth’s core, as the title already implies, and, as in *The Cave of Time*, unfamiliar terrain is entered both geographically and narratologically. Again, *Into the Hollow Earth* shows itself firmly implanted into the conventions long established by numerous CYOA texts; one reviewer has noted that “the

183 Other examples of such an additive storyworld would be the *James Bond*-series or the novels of *Sherlock Holmes*.

book is full of classic Choose Your Own Adventure themes: family members with exciting careers, a certain distinctive mysticism, freedom fighters vs. government oppression, and so on.” (Katz) The difference between the storyworld and what we know as reality is already emphasized in the foreword, which presents a quasi-scientific discourse describing the dynamic expansion of the earth as “a titanic struggle [...] about to explode that will determine how energy will be seen for a small bit of eternity.” (xii) Earth finds itself at the moment of transformation, and though the first chapter deceptively returns to a quite ordinary setting (the boarding school where the three main characters are studying for an exam), the reader soon notices that this world is anything *but* ordinary. As in *The Cave of Time*, the reading experience here allows the transcending of physical and spatial boundaries, as the three main characters operate within a futuristic setting which includes flying devices, a political dictatorship that a movement called the “insurgency” is rebelling against, and a post-apocalyptic New York, which has been flooded by a Tsunami and where traffic is only possible by boat (prompting one character to report that “[s]ome people wanted to rename the city New Venice, but that never stuck”, 86). *Into the Hollow Earth* is part alternate history, part science-fiction fantasy, part time-travel – and all of this is embedded in a uni-directional arborescent nodal structure that is typical of any Choose-Your-Own-Adventure novel and connects it to *The Cave of Time* discussed earlier. However, the differences in how this nodal structure is implemented and functionalized are striking when comparing the first CYOA novel to this modern-day edition.

Into the Hollow Earth features far fewer endings and choices than *The Cave of Time* – eleven endings in total compared to the 39 of *The Cave*, four of which are ‘mock endings’ because they lead into Volume 2 of the series and thus function as continuations ‘beyond’ the narrative – and the story segments between the nodal situations have greatly increased in length. The first section of text, in particular, spans so many pages that the presentation of a decision situation at its close may come as something of a mild surprise; the reader, in all probability, will have immersed herself in the tale to such an extent that the bifurcating structure may no longer be fresh on her mind (such a prolonged cognitive immersion is next to impossible in *The Cave of Time*, where the first node appears on page two of the story). *Into the Hollow Earth* poses as a quite conventional novel for young adults throughout the first chapter (though, of course, there are plenty of hints strewn in that something spectacular is about to happen, generating a state of anticipation in the reader). There is no explicit authorial voice explaining this narrative format to the reader (who, presumably, is well acquainted with interactive game novels at the time this new series was published), but we do encounter a structural map before the actual tale begins:

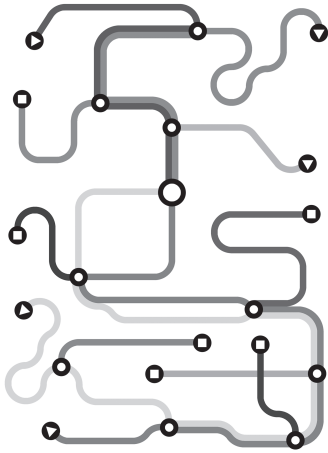


Fig. 4: Structural Map of *Into the Hollow Earth*. Image from *The Golden Path Volume I: Into the Hollow Earth* published by Chooseco LLC. www.cyoa.com.

This map is very schematic and gives no immediate clues as to its configuration; only a well-versed CYOA-reader (or one who has already read the book once) will recognize that it displays the different paths through the text and marks the endings and continuations into the second volume. The decrease in reader guidance can, again, be attributed both to the established status of Choose-Your-Own-Adventure texts at the time of the series' publication *and* to the general tendency to offer less regulation and assistance in participatory texts today than at the time the first gamebook was published; the digitally versed reader of 2008 will be much more familiar with multi-linear, interactive structures than the reader of the late seventies, who ostensibly required a far higher degree of mediation and guidance through this – at the time – new and revolutionary printed text format. The lack of reader/player guidance is taken to an extreme, of course, in many hypertextual narratives, which provide no orientation for the reader within the textual universe whatsoever, so that the exploration of the textual universe becomes a testing-out of possibility; the decrease in narrative mediation of optionality and choice at the outset of *Into the Hollow Earth*, which replaces the voice of the game master with an abstract diagram (much like the one present in Madsen's *Days With Diam*), surely testifies to the contemporary reader's experience with interactive textuality as a whole, including, of course, video gaming. While *The Cave of Time* still featured an insistent game master voice that could not be overheard, *Into the Hollow Earth* adapts a more subtle tone in revealing its rules of operation.

Though there is no inherent structural difference between the early and the late variant of CYOA books, decision-making in *Into the Hollow Earth* reveals itself to be more ethically charged than in its earlier predecessor, and this is in no

small part possible because the story segments are longer and the decision situations are fewer. Choice in this recent CYOA-book is often moral and less purely actional – decisions are more complex and involve a higher degree of reflection, and more narrative is ‘built around’ the nodal situations to embed the decisions in a fleshed-out context, the lack of which made choosing a continuation in *The Cave of Time* seem arbitrary at times. This sense of moral significance surfaces as early as within the first nodal situation, which offers two highly charged choices: “If you choose to follow your mother’s plea [...] and go to Carlsbad to meet Uncle Harry, turn to page 52” vs. “If your gut tells you to go to New York City to meet Preston Billings and learn his ‘important information’, turn to page 43.” (30) The protagonist has just entered his parents’ house after having been expelled from school, has realized they are missing, and has found an e-mail from his mother informing him that “[i]f you are getting this email it is because something has happened to us.” (26) His mother’s advice to seek his uncle is thus the ‘safe’ way, the decision to take charge alone represents a more daring and independent choice. Because the narrative buildup is very extensive and critically influential factors – such as the protagonist’s worry about his parents, and the cruel death of the family dog whom he and his friends find inside the deserted home – heighten the sense of anxiety about making *any* decision, the offered dichotomy between safety/trust in parental guidance versus taking one’s own, perhaps more risky, decision is also a dichotomy between two very different character traits. Because it is a choice based largely on intuition – the protagonist has, at this point, no way of knowing which decision will be better to resolve his predicament –, the reader/player steps into the first continuation without being able to estimate the consequences of her choice, while at the same time sensing that this is a choice that matters significantly. Again, the suffusion of individual choice with ethical relevance (many choices revolve around whether a specific individual’s persona or advice can be considered as ‘trustworthy’) points toward a deeper awareness of morality inherent in (gaming) decision situations, and, by extension, to video game conventions, where an increasing number of games revolve around the issue of ethical choice making. Of course, the dimension of ethics involved in *Into the Hollow Earth* is not comparable to the highly complex ethical gameplay of, say, *L.A. Noir*, but a comparison of CYOA in its early state with this late variant proves that pure optionality has been replaced in favor of more deeply narrativized, ethically significant decision situations.

Choose-Your-Own-Adventure is and remains a genre based on either-or, binary decision-making. However, how deeply these decisions are embedded into the narrative framework of the text has changed significantly from CYOA’s early stages until today. Providing the reader with more narrative content ‘around’ the nodal situation generates a sense of decision-making that is less haphazard and

more deliberately attempts to optimize the protagonist's position in the events of the story. The resulting decrease of choice situations and endings does not render the text less, but actually *more* engaging, because the reader has a much deeper understanding of why she should choose *a* over *b*, and what this may mean for the development of the storyworld and her role within it. The maxim of 'less is more' certainly holds in the case of these gamebooks, which seem to operate more efficiently through a reduced number of options. This, again, reinforces the fact that the quantity of options that a FN offers cannot be taken as indication of that narrative's overall nodal power. Though both *The Cave of Time* and *Into the Hollow Earth* operate under the same nodal principle – stringent bifurcation enforced by either-or choice making, non-reversibility, non-circularity – how they employ this principle in order to enable reader agency has changed significantly from the early years of CYOA until today. It becomes clear through the readings of these two books that the embedding of decision situations within a satisfyingly extensive, narrativized storyworld proves to be one of the most relevant aspects for how choice situations are optimized in terms of consequence and reader/player agency. The more we know about a world, and the more deeply (emotionally and ethically) involved we are in it, the more likely we are to involve ourselves to equal degrees in the decisions the text requests from us. Reader choice presupposes contextualization if it is supposed to matter, and in the medium of print, this contextualization can only be achieved through offering enough story 'behind' choice making. In the Choose-Your-Own-Adventure format, story complexity trumps pure optionality.

5.3 The Novel as Branching Structure: Svend Åge Madsen's *Days With Diam or Life at Night* (1994)

Days With Diam or Life at Night (*Dage med Diam eller livet om natten*) is a multi-linear novel first published in 1972 by Danish writer Svend Åge Madsen.¹⁸⁴ It tells the story of Alian (who is also the first-person narrator of the tale) and his lover, the elusive Diam, who may or may not be a figment of Alian's imagination. Their relationship forms the central issue of the novel and is explored within its branch-

¹⁸⁴ *Days With Diam* has been adapted as an illustrated, interactive hypertext e-book for the iPad by Sara Houmann Mortensen, testifying to its essentially hypertextual structure and interactive reading format. No English version is available until now, but the many illustrations may be of interest even to readers who are not familiar with Danish – Mortensen complements the relationship story between Alian and Diam with sketches of scenes between them, thus adding another layer to the multidimensionality of Madsen's narration.

ing story structure, as is Alian's status as a writer and his continual meddling of reality and illusion.¹⁸⁵ The most essential bifurcation happens at the very outset of the story: Alian either goes to the train station to pick up his lover Diam, or he does not; from this crucial decision result two highly diverse narratives which continue to branch into increasingly fantastical episodes of relationship tangles versus writerly solitude. All possible continuations branch off from the starting point "S", and movement through the arborescent configuration is aided by the assignment of letters to the story branches (so that the continuations of "S" are "SA" and "ST", their continuations are "SAL", "SAN", "STO", and "STR", and so on).¹⁸⁶ As *Days With Diam* is one of the few print texts which operates with a strict binary branching mechanism where the reader must decide how to continue at the end of each story segment, this novel can also be regarded as one of the most paradigmatic cases of future narration in the print format as a whole (excluding the thematically much more reductive Choose-Your-Own-Adventure format).

Days with Diam is structured as a classical forking-path narrative, with 32 different outcomes resulting from one initial nodal situation.¹⁸⁷ This *unidirectional arborescent structure* formally links the novel to the Choose-Your-Own-Adventure design, in which the choice of one option at a nodal point cancels out all other possibilities for continuation offered at this node during one particular run. Indeed, the reader of *Days with Diam*, if she follows the branching structure presented by a diagram entitled 'Contents' in the beginning of the book, can choose one specific route only through the text, a route which is, in itself, wholly linear and teleological and excludes all alternative pathways besides the one selected. Only after any one single run has been completed is the reader able to return to the starting node and choose a different path through the story. This mechanism of exclusion by selection characterizing the "strictly hierarchical structure" (Koski-

185 At the very beginning of his story, the narrator testifies to this confusion: "I cannot keep the two phenomena united, there seems all the time to be some discrepancy between them, all the time there is something I'll call the world, all the time there is something I'll call my fancies" (7).

186 In the section STOLIE, the narrator actually presents his idea for the construction of this novel: "My plan quite slowly takes shape. The novel must end up having a very special construction. It must begin with a meeting with Diam and then segregate into all the beautiful experiences I can ascribe to us. I can imagine how I shall soon have reached a hundred and twenty-eight delightful little episodes between us, one piquant, the second poetic, the third amusing, the fourth dramatic. The only way of avoiding schizophrenia is to invent every single beautiful event I can conceive of, not one experience will I renounce, every one of them will have to be described with such total identification, with such understanding, that the experience will really become mine" (194–196).

187 Koskimaa has indeed described this novel as "a paradigmatic case of the fiction of forking paths."

maa) of the novel is also thematized in a conversation between the narrator Alian and his lover Diam, as it significantly shapes their existence as human beings: “Can’t you feel that?” Alian asks Diam, “All those possibilities that are being lost, incessantly.” (72) A similar sense of loss will ostensibly be felt by the reader of *Days with Diam* within every decision situation, since progression within the text structure is only possible by choosing between two options, necessarily eliminating one of them in the process. As there are absolutely no interconnections between individual paths, a maximum degree of consequentiality is attributed to each decision act, and switching back and forth between alternatives is impossible. In one of the many openly self-referential sections of the novel, the narrator muses on the possibilities – and, more importantly, limitations – of the binary dynamics afforded by its branching structure. To him, the duality of options presented in each decision situation paints an unnecessarily restrictive picture of the potentiality of the textual universe and of himself as a person, as

[...] S is not necessarily only followed by ST; one could well imagine an unformulated SA, SB and SC. Similarly, my present self, STO is not the only possible continuation of ST. I might have brothers, STA, STB whom I can’t see, but only imagine. And so I must also imagine the possibility that something might rub off not only from one link to those following it, from ST till STA and STB, but also between ‘neighbours’, between links ranged side by side and stemming from the same predecessor, that is to say between STA, STB and STC. So that I have to see my STO-linked self linked to potentials of which I have only been dimly aware, but which are unfolding themselves outside me, or somewhere else within me. (26–27)

In this passage, Alian cognitively creates counterfactual selves that are excluded by the binary tree structure of his narrative; imaginatively extending the nodal structure to include more alternatives and linking these ‘neighbouring’ alternatives to each other, he conjures up a network of complexity that exposes his dissatisfaction with the strict binaries of forking paths. At another point in the story, he defies the either-or structure generated by the novel’s configuration more openly, referring to the possibility of re-starting the reading process at any point in time, and reassuring himself that “no choice will be binding, because I will always be experiencing the other possibility as well.” (94)

The unrelenting elimination of optionality effected by the tree structure thus reveals itself as one of the central concerns of the narrator, and it is countered with repeated references to the enticing option of reversibility, which, in this novel’s case, means ‘going against the rules’. Alian is quite taken by this option, maintaining that

[...] I might be allowed to cheat in our game, [...] I might be allowed to leap over into another junction, and be allowed to try again. The fact that I didn’t find the right way the first time doesn’t mean that I will never be able to find it. On the contrary, it means that I have a better

chance of finding it next time, for now, at least, I know one trail that leads nowhere, and that I can avoid. (129)

This reflection on the possibility of cheating the text by literally breaking through its branching format also includes a reference to the ‘putting on the backburner principle’, gesturing toward the potential of comparing individual reading performances to each other in order to make a better choice next time around. Exploring one possible alternative run through the text (or, in the narrator’s case, through the ‘game’ of his life), this alternative can be cognitively stored in order to serve as comparison to different routes. Knowing that a given path does not yield the outcome we desire, we can re-try, re-start and steer clear of this path for the sake of others that may lead to more desirable results. What is impossible in life is made at least theoretically feasible in Madsen’s fiction, and Alian, reading the text *as his life*, transfers the opportunity of reversibility to his existence as lover and writer. At one point in the novel, the narrator literally manages to ‘turn back the clock’ in order to take a different path through the story:

I can see only one way out it I am to make good the damage: I must turn back the clock. [...] For a moment I am on the point of turning off down to the beach, but I manage to alter my decision. Like seeing a film run at many different speeds, only stopping, reducing speed when you change the spool, to make sure that you choose the right continuation. (218)

This, of course, mirrors the exact motion of the reader who, after having travelled down one possible narrative strand, must revert back to the beginning in order to choose a different path. Though the novel’s bifurcating arrangement does not include the motions of re-circling or crossing paths in its rule system, Madsen’s text entices the reader – and its narrator – to become immersed in a labyrinthine experience, as we find ourselves in a narrative maze which we must enter again and again to explore all story possibilities. Indeed, the very last sentence openly reveals the book’s labyrinthine structure: “Would you like me to help you to find the way out?” (246)

The reading process generated by the bifurcating strands in *Days With Diam* is characterized by a degree of disruption that far exceeds that of other forking path narratives, as the reader must consult the initial diagram or ‘Contents’ after each section in order to make the next choice. Unlike in Choose-Your-Own-Adventure narratives, the options for continuation are not presented at the end of chapters, but only within the initial tree chart, which serves as the central point of reference and provides a general structural overview; it must recurrently be checked in order to remain oriented. Thus, *Days with Diam* encourages (and, indeed, requires) a constant ‘back and forth’ motion, the reader incessantly alter-

nating between the graphic representation of bifurcation and the continuations provided by this bifurcating pattern. The rule system of this text is, therefore, constantly present on the reader's mind, as she will be reminded of the fact that she is subjected to these rules at the end of each section. This exposes *Days With Diam's* self-referential ludic status, the reader as player having to accept and employ the game's rule system if she wants to play the text correctly (and this is, of course, in accordance with Alian's repeated characterizations of the text as game, such as the one cited above). In opposition to CYOA-narratives, whose nodal situations are narratively mediated by a game master (who advises the reader to *do this* or *do that*), Madsen restricts the mediation of nodes to a visual representation, emphasizing the strictly formalized ludic structure of his text.¹⁸⁸

Any sense of ambivalence about how to progress within the structure of this game novel is thus initially reduced to making a choice between two very clearly marked alternatives; as Koskimaa has observed, “[t]he points of departure are very clear – the whole text is like a treatise on the contingency of life, on how every decision bears consequences for the future.” Indeed, the notion of consequence is perhaps the central structural and thematic motor behind Madsen's narrative universe, and the narrator repeatedly reflects on his acts of choice making and the entailing (potentially negative) results:

I re-experienced the short time we were together, minute by minute, scrutinizing every moment to discover when I went wrong. And suddenly, it was as though I could see a complete pattern, a network with a lot of junctions, all of which contain the possibility of making a wrong choice. How can one choose the right way in this pattern when one has never learned the rules, when one doesn't know according to which principles the choice must be made? (127)

The narrator's fear of having made incorrect choices is mirrored, on the level of the architecture, by the near-complete absence of any information about the consequences of any given decision. This turns the reading/playing process into a game of chance, and in fact, reading instructions suggested in the section STOR reveal the novel as such a game, informing the reader that

188 Juul notes that in the short story Spor (“Tracks/traces”) in *Af sporet er du kommet* (“You have come from tracks”, 1984), which unfortunately is not available in English, Madsen uses the continuation-by-choice pattern in a more game-like fashion: “the choices have more of a game character; things can go well or less well for the protagonist. So Svend Åge Madsen initially uses the forks as a multitude of possible and parallel futures. Gradually, the role of the reader becomes more important, and the texts become more game-like. Spor does seem influenced by the Choose your own adventure [sic!] series, where the reader has to make choices of the sort ‘Do you want to attack the dragon?’” (*Clash*).

You can choose your path in many different ways. When you have read S, which in this case is the beginning of all things, you can spin a coin to decide which way to go. If it shows heads you take the first continuation, SA; if it shows tails you can move to the other, ST. And by tossing a coin five times in this way you can reach the final part of the 'short story'. (51)

This reliance on haphazard decisions guided by the toss of a coin signals the inherent randomness of any choice in Madsen's novel, mirroring the most often random choice mechanism of hypertext. The consequences of the reader's choice for the development of the narrative content are unknown to her at the moment of selection, as she can only make a very abstract decision between two different letter combinations which are in themselves meaningless. Like the narrator, the reader discovers the consequences of her choices only in retrospect, and must progress through the narrative based on a more or less arbitrary selective mechanism. This mechanism links *Days With Diam*, despite its strictly binary arborescent structure, to exploratory types of hypertexts more than the CYOA-genre, because no information is provided at the nodal points. As the text progresses, the continuation-by-choice pattern becomes increasingly finely branched and polymorphous; the narrator comments on this increasing complexity when he observes that "I can perceive more and more ways of proceeding, without knowing which of them will guide me to my goal." (28)

The rather curious word formation resulting from the narrative's bifurcation reflects a largely nonsensical play with combinatory options, diametrically opposed to the high value placed on consequence within the story's narrative involvement. As already explained briefly, the two main narrational strands of the novel are constituted by the SA- and the ST-strands and triggered by the central decision of the narrator (and the reader) made after the initial "S" section: to leave his writerly solitude, go to the train station and see Diam ("Once in the car I feel like another man"; 12), or to stay separate from her and exist solely as an artist, apart from Diam and others ("She has continued her journey now. I'm not thinking of her"; 15). These very different routes through the story are not only graphically divided by the tree diagram, they also thematize extremely different aspects of the protagonist's life (in one case, he is a lover involved in a complex relationship, in the other, he is a solitary writer faced with the construction of a narrative text). The very first decision the reader makes is thus directly influential for the entire rest of the ensuing story strands, and consequence is clearly of a high degree – but the reader cannot be aware of this, because she is not provided with any information about the outcome of her selection ahead of time. The sections in the SA-strand deal directly with the relationship between the narrator, Alian, and his lover Diam. They tell different stories about their meeting(s) together, their love affair and its various endings, and are thus the more 'con-

ventional', plot-driven part of the novel. The ST-strand, on the other hand, is primarily a self-reflexive meditation on storytelling itself (and on the telling of *this* particular story). In it, the narrator muses on how to construct his novel, how to integrate his different 'selves' into the narration, and on the nature of storytelling and fiction in general. Diam does not appear herself in these parts of the novel, she only exists within the thoughts of the narrator. In each strand, it seems that there is only room for *either* Diam *or* textual creation; these elements cannot exist in the same narrative universe and cancel each other out by their sheer presence. That is, the narrator cannot both involve himself emotionally (with Diam) and artistically (as author). He understands the significance of having to make a binary choice and characterizes himself as "a man constantly torn between two elements within himself, two 'urges': the desire to launch himself into the incomprehensible world, to experience it, to renounce all rational argument; and on the other hand the need to understand, to investigate systematically, to reflect on the world, in order to discover a certain order in it." (208–209) This opposition between physical experientiality and shielded intellectuality constitutes a central conflict both within the narrator's existence and the structural patterning of the novel. However, despite their separateness, relationship and authorship reciprocally influence each other, as the experiences Alian makes in the SA-strand with Diam creatively infuse his story writing in the ST-strand: "I decide that my perception of this relationship must furnish me with an opportunity to direct my life, to fashion my own story." (29) He even admits that "[p]erhaps I'm deliberately launching myself into the biggest emotional difficulties I can find." (18) Hence, the clear division of the SA- and the ST-world suggested by the forking-path structure of the novel does not entirely hold; while, as Koskimaa has noted, "[f]rom the point of view of fictional ontology these two worlds should be totally inaccessible to each other – they are alternative possible worlds, and in each, a certain decision shuts the other alternative out for good", they are "both present" during the reading process (and, one should add, during the creative process Alian undergoes in the course of the novel), and "one is infected by the other" in the sense of Bordwell's principle of 'contamination' (cf. Bordwell 98). Alian himself concedes that Diam, for him, "is never completely absent. Even when I think I am most engrossed in my writing she is here somewhere, somewhere behind my thoughts." (7) The 'crossing over' from one story strand into another, prohibited by the arborescent structure's rule system, thus happens imaginatively, in Alian's awareness of himself as writer *and* lover.

The character of Diam can be deciphered as a metaphor for the textual structure of this novel; like the text itself, she takes on various guises and roles and is as multifaceted as the story's narrative configuration. This may be the reason for the mutual exclusiveness of Diam and textual in the two narrative strands, since

reading *Diam as text* signals that the narrator's preoccupation with textual creation is satisfied on different levels in both strands. The forking-path narrative in *Days With Diam* generates multiple Diams; the decision of how to continue thus not only influences the development of the story, but also which Diam we (and the narrator) encounter. Koskimaa has noted that "personality as an interchangeable role is one of the recurrent themes in the book", and the fluidity of Diam's character extends far beyond merely showcasing different aspects of *one* personality; she takes on new roles as genuinely new identities (among others, she is a countess, a painter, and a prostitute) and denies any mentioning of playfulness or even role-play. When Alian, exasperated by her constant need to disguise, asks Diam whether they "ought to find another game to play", she answers irritably: "What 'game' are you talking about?" (41) To her, these changes of identity are as real as the relationship with Alian and all its problems; at the same time, they make her as unreal to the reader as the narrative structure appears to be, perhaps nothing more than a figment of the narrator's (and our) imagination. Is Diam merely a projection screen for the narrator's fantasies, or a text to be cut up and arranged into new combinatorial possibilities? Alian seems to enjoy similar suspicions:

Have I done it all wrong? Have I simply exploited Diam? I have absorbed impressions, I have extracted moments of experience from here. I have put her on a pedestal and walked around her to satisfy my yearning for beauty, I have turned her round, turned her face so as to get it in the most beautiful positions and see her from the most attractive angles. (168–169)

As a multidimensional collage of attitudes and identities, Diam represents both the consequentiality of choice making and the desire to *deny* this consequentiality, to be *everything* instead of one (chosen) thing, to recover "all those lives you are never allowed to experience." (72) She embodies the feat of the novel as a whole to offer a choice between alternatives which, at the moment of choosing, mutually exclude each other, while preserving all alternatives within the overall architecture of the text.

The narrator Alian, too, takes on different disguises.¹⁸⁹ As a character in the SA-strand, he must constantly perform new roles to gain access to Diam; when he checks into a hotel shortly after her, she has assigned him three different characters, and he must guess which one he is in order to convince the porter: "Diam has not made my choice easy. She has made either a pastor, a colonel or a director of me." (22) This role-play is often accompanied by a sense of ambiguity and disorientation; at one point, Alian admits that he feels "a little uncertain about how

¹⁸⁹ Contrary to Diam, however, Alian always signals that he is playing a role and is ready to give it up when Diam recognizes him.

to play the part expected [...]” (41).¹⁹⁰ The development and outcome of his new character identity are as undecided to him as the progression of the branching narrative is to the reader. In this sense, his (and Diam’s) existence is also a perpetual game in which the players must performatively respond and adapt to the new gaming situations they find themselves in. Similarly, the reader/player of this novel must adapt to its narrative rules and the choices she makes within this rule format. Once again, the openly ludic status of the novel is reflected both on the level of characters and on the level of the architecture. Alian admits that “[t]his book is about me and my attempt to understand myself as the sum of my potentials” (98) and conceives of himself as a “chain of beings creating themselves by writing.” (26) The book he is creating is “a kaleidoscopic picture of the possibilities I have felt within myself. [...] [I]t’s comprehensive in the sense that it doesn’t limit itself to portraying just one or a small number of the moods with which I am most familiar, but it presents my world as a series of flickering moods.” (100) Only through the branching structure, offering multiple divergent possibilities, can Alian try to comprehend his identity and the meaning of his existence as lover and writer, which he is not able to compress into one uni-linear storyline. Alian’s dividedness, however, goes beyond such a multiplication of moods and ideas; he also experiences physical ‘bifurcation’ in his frequent encounters with *Doppelgängers*. Early on in the SA-strand, while making love to Diam, he sees himself “standing beside us, looking at my body intertwined with hers.” (19) Later, this possibility of bodily branching becomes even more tangible; the narrator first imagines “a huge, empty world”, in which a man “reaches the ocean and stops. He divides into two. The two men walk in opposite directions, along the waterline. One of them stops at a boat. He divides. [...] The other man walks along the ocean. He divides [...]” (185), before actually encountering an alter ego of himself in his cottage: “Something is wrong. Suddenly, I know where I have seen this man before. I have met his face in the mirror every morning.” (112)¹⁹¹ This *Doppelgänger*, however, seems to exist in a different ontological sphere and is inaccessible to Alian, as he neither sees nor hears him; he is a version of himself to be observed, but not interacted with. Indeed, this alter ego, too, keeps dividing into multiple versions, and like the reader of the novel, Alian can only follow one of these versions at a time: “I hesitate, have no idea which of them I ought to follow, to whom I belong.” (229) His alter egos are as mutually exclusive as the

190 His relationship to Diam can thus also be seen to provoke episodes of improvisational theatre, with both Alian and Diam as performers in situations whose outcomes are undetermined.

191 At one point in his tale, he tells Diam a story of a world in which it is possible to freely exchange unwanted body parts with other people. This goes so far that one day, the narrator meets someone who has collected all of his old body parts and is thus another ‘version’ of himself.

branching text segments of his book, and there is no possibility of contact or connectivity between them within the world of the novel. Even when he kills one of his *Doppelgängers* with a metal bust of an author, he does not manage to escape the line of events set for himself in this particular story branch; the alter ego has, before the moment of his death, been writing the exact words which Alian has experienced at the same instant. The experience of *Doppelgänger* versions culminates in the section of the novel which is physically set as the last chapter, in which Alian encounters all alter egos in one labyrinthine funhouse. In this “living museum” (245), he sees all of the scenes of his life, those with Diam and those in which he is a solitary writer. As such, all strands run together here, constructing a multiple, fragmentary and kaleidoscopic ‘summary’ of what has been developed in the individual story runs.

Storytelling and identity are thus intertwined in Madsen’s novel to a degree that it becomes a near impossibility to distinguish between them. Physical and textual bifurcation are equally possible, and Alian presents the text as a fragmented, shapeable body (45–46) and his body as a fragmented, shapeable text. He furthermore concedes that

It is impossible to read the book as though it were about only one person [...]. When, nevertheless, the book so doggedly maintains that the 63 [persons] constitute one single person, it is precisely an attempt to enable the reader to understand the greater structure which these fleeting figures together constitute, the social being that the book presents. (205)

The importance of textuality for this social being, which is itself *composed of* text, surfaces in the repeatedly told story about a man (Toran Lynde) who is “story-less”, has no story to tell about his own life. At one point (160), Alian calls him “Iron Nihilsen”, a man who gets to choose from stories others have ‘given’ him. Quite possibly, this character is an allusion to the narrator and the overall structural concept of the novel, an amalgamation of different narrative possibilities. The equation of text and identity attributes a multifaceted, polymorphous structure to both, and renders them as two aspects of the same game of optionality. *Days With Diam* is both a ludic experiment with narrative multiplicity and a deeply insightful psychological portrait that refuses to settle on one image of individual identity, presenting instead a kaleidoscopic collage of a “multitude of possibilities” (190). As a FN, it operates with unidirectionality and binary bifurcation, but the world which the narrator and Diam find themselves in is characterized by an excess of potentiality, a surplus of both textuality and personality that simply cannot be accommodated in one uni-linear story strand.

5.4 Prose as Path: Jacques Roubaud's *The Great Fire of London* (1991)

Jacques Roubaud's 1991 novel *The Great Fire of London* (first published in French as *Grand incendie de Londres* in 1989) is the final printed FN that shall be considered here in a detailed reading, and thus constitutes the threshold between hard copy FNs in text and digital variants of the genre. Though it is published in 'conventional' book form and offers the least blatant mechanism of nodes and continuations within the group of print texts analysed in this section, it nevertheless points ahead most clearly to the functionalization of nodes in the *digital* realm, which are often employed to enable free movement that is not teleologically motivated, but offers a surplus of possibility and navigational choice. *The Great Fire of London* is centrally concerned with the workings of memory and thought, and revolves around the death of Roubaud's wife in an autobiographical sketch of their relationship – but equally important is the 'death' of the book itself, the book that Roubaud attempts to write but which escapes him time and again. This FN does something very different with nodes in print text, as it neither proposes a clear goal in its nodal structure nor, indeed, enforces this structure. It works by associative connection, and, in this, mirrors the nodal operations in electronic text, which very frequently (particularly in hyperfiction) favours associative patterns rather than proposing a clearly determined ending point or objective.

The Great Fire of London explodes into possibility even with its title. Indeed, the name of the book the reader finds on its cover – *The Great Fire of London: A Story With Interpolations and Bifurcations* – is not identical to the title of its contents. To start out with perhaps the most significant paradox of Roubaud's textuality, *The Great Fire of London* is the title of a book Roubaud never managed to write, a book that was part of his great literary *Project* on mathematics and poetry: "*The Great Fire of London* [...] would have held a singular place in the construction of the whole, distinct from the *Project* itself, although fitting into it, telling the story of the *Project* [...]" (VII). It is this failure of the *Project* that he muses on, toils with, and attempts to explain in the book the reader holds in her hand. This book Roubaud names *Branch One: Destruction*, the reference to bifurcation being due to the fact that Roubaud envisioned this first branch as only one of six volumes of *the great fire of London*, (French: *Le grand incendie de Londres*) in lower case (cf. Laskowski-Caujolle 26). *Destruction* forms an attempt of Roubaud's to "explain just what his original novel [i.e., *The Great Fire of London*] was supposed to accomplish while simultaneously staking out the narrative conditions under which its story may now be recounted." (Poucel) The novel we physically encounter is thus a poetological and narratological reflection on the novel Roubaud intended to compose. In order to achieve such a reflection, Roubaud

must deviate from the standard linearity of conventional novel writing, opting instead for a multi-linear, branching structure. Poucel has identified *Destruction* as “stag[ing] the question of literary genre (form)”, and this process takes place on several ‘stages’, or levels of the narrative. The potential text of Roubaud’s original project, *The Great Fire of London*, is contrasted with the actual(ized) text of *the great fire of London* (cf. James 55).

The Great Fire of London works against linearity and operates with nodal possibility in multiple ways. This novel is composed of a main text and two possibilities for digressing from this primary narrative, named “interpolations” and “bifurcations.” These deviations from the text are marked in the margins of the main text by “I §” and “B §” respectively, and thus constitute invitations for departures from the narrative route. The reader is both lured away from the primary text and called back to it once she has finished reading a particular digression. This configuration is likened by the narrator to “the reading of a road map [...]”, and to a “hydrographic network of waterways in the heart of the geologic continent, [...] [a] skeleton in the body, [...] the veins in green leaves.” (20) Though he refers to the text as ‘network’ and as arborescent structure composed of branches at several points (cf. 9), the return to the main ‘story’ after having reached the end of an individual digression structurally assigns his narrative an *axial* nodal configuration in the terminological context of this study: the distinction between the primary text and the side tracks are obvious, and once the reader has explored such a track, she *must* return to the primary text if she wants to continue reading. The digressions are thus *bidirectional* (i.e., they allow a return to the node from which they branch off), while the main narrative itself is *unidirectional* and can be read from beginning to end. The “interpolations” and “bifurcations” are as much part of the fictional universe as is the main narrative; this is why their marking within the main text (“I §” and “B §”) can be considered as constituting nodal situations of a future narrative.¹⁹² The relation of main text to digressions can be described as *complementary*, rather than contrastive or even rivalling; the digressions proportionally make up nearly as much text as the primary narrative and bear some similarity to links in hypertexts which provide additional informa-

192 In this way, Roubaud’s novel can be associated with works such as Vladimir Nabokov’s *Pale Fire* (1962), in which the ‘primary’ text (in Nabokov’s case, a long poem by the fictional bard John Shade) is interspersed with annotations by the equally fictional ‘editor’ Charles Kinbote. However, these are two radically distinct voices, and, indeed, the tension between these voices and Kinbote’s struggle for textual supremacy determine much of the novel’s semantic potential. In Roubaud’s text, on the other hand, the bifurcating motions away from the main text are not used in a competitive sense, but to simulate branching and digressing thought and memory processes.

tion and from which the reader can navigate back to the original screen. Indeed, the novel has been regarded as a prototypical print forerunner of hypertext:

Jacques Roubaud's novel [...] is not a traditional, linear novel, but, as described in its subtitle, 'a narrative with interpolations and bifurcations', thus it can be conceived as what George P. Landow calls a 'quasi-hypertextual narrative'. As in electronic hypertexts, the reader of *Destruction* is constantly required to make decisions and to take over some of the author's role: which possibilities to neglect, which to accept. (Laskowski-Caujolle 1)

Like many a hypertext, *The Great Fire* offers 'surplus' material that is 'linked' to the main text and can be explored at will by the reader or user; the axial structure of Roubaud's book permits two ways of processing the novel: either uni-linearly (leaving aside the invitations for branching off) or multi-linearly, if the reader chooses to follow the digressions.

Each time the reader encounters a marking that signals the option of embarking on a diverging branch, she must make the decision whether to stay on the core narrative path or to leave it (temporarily) in search of different input. In this sense, *The Great Fire of London* is a multipath text which offers page-to-page transitions within the overall structure of the novel. Contrary to forking-path narratives such as most Choose-Your-Own-Adventure stories, and also in opposition to networked hypertextual structures, the activation of a nodal situation is not intrinsically *necessary* in *The Great Fire of London* to create a meaningful narrative experience. While in these other forms of future narration, the refusal to make a choice at a given node will result in a nonsensical narrative or even a (premature) ending of the text, Roubaud's novel could, in theory, be read in a completely unidirectional mode, ignoring all possibility of bifurcation.¹⁹³ The narrator seems to be aware of this possibility and expresses a certain unease at having the structure of his novel undermined by a potential rejection of its bifurcating mechanism: "The distinction between mystery and riddle, one that I've invented for the sake of my story, will be presented to you at a later point (it's already written, but no doubt you haven't read it yet, at least if you are reading the insertions at the moment they appear in the continuity of the text)." (203)¹⁹⁴ It is thus apparent that *The Great Fire of London* does not employ digressions as a structural necessity, but as an

193 Laskowski-Caujolle also remarks on this possibility of upholding a uni-directional reading strategy: "Reading his novel means breaking with old linear reading habits (*though linear reading is still an option*) and – like the reader of a mathematical text – engaging in a new form of dialogue with the author" (8; emphasis added).

194 In this, it resembles game novels such as Cortázar's *Hopscotch*, in which the reader can also choose between merely reading the text or accepting the invitation to play it – this, in a sense, creates its own nodal situation at the very beginning of the reading process.

incitement to free play and deviation, in which the reader may involve herself – or not: “the act of reading Roubaud’s novel becomes an act of selecting which of the diverging fictional worlds to explore, or which path to take through the novel.” (Laskowski-Caujolle 1) This novel offers a surplus of possibility that is not accommodated within the main text, but into which the reader can tap if she wants to enrich her knowledge of the storyworld and its narrator. *The Great Fire of London* promotes multipath reading without enforcing it; the strategy of explorative reading is privileged over the teleological mechanism inherent in more openly ludic, *alea*-type structures (such as the CYOA novel or interactive fiction). The narrator confirms this when he states that “these continual leaps in my book, potentially represented by the *bifurcations*, *interpolations*, and every category along the lines of an *insertion*, correspond to one of reading’s absolute privileges: namely, the ability upon opening a book to be anywhere at once inside it.” (30) *The Great Fire of London* does not offer a game to beat, but indulgent play with possibility; it is thus evident that consequence plays a much more reduced role here than in other types of printed FNs. Whether the reader chooses to pursue the deviations or not will neither change the storyworld nor the presentation of events within the primary narrative. The reader’s choices only affect the amount of knowledge she can gather about the events narrated in the main strand, and thus the comprehensiveness of the overall reading experience. The nodal power of this axial future narrative is therefore quite low – neither characters, nor space, nor the temporal configuration of the text changes through reader choice – but the fact that *The Great Fire of London* does not enforce consequence does not speak against its force as a future narrative, it is merely a future narrative which has a different interest in implementing nodal situations. Its axial structure mirrors, as will be explained in what follows, the patterns and workings of memory and creativity.

Curiously, the abandonment of linearity is the only way in which the *narrator* seems to be able to create satisfactory story content at all – at various points throughout the novel, he insists on his aversion to teleological directedness and on his need to intersperse the text with branching mechanisms instead of crafting a coherent, uni-linear storyline. He describes his “effort to contemplate a linear topological representation” as “hopeless” (20) and comments upon his struggle to resolve his affinity for multiplicity with uni-linear narration:

I’ve tried, not without difficulty, to preserve a linear dimension to my prose, a direction to my story. Not without difficulty, because contrary to my calm and collected presentation in the first chapter, it isn’t always, nor even most often, a question of choosing a route from among the crossroads that appear along my way, abandoning the others for the time being in order to get back to them in insertions. (52–53)

Teleology does not work for the narrator as the governing principle for his prose; he wishes to write *inclusively* rather than *exclusively*. On another occasion, he comments upon his mental and emotional state when trying to write linearly: he feels “intense with anguish and hesitation over starting to write this piece in lines that will be black and cramped, in miniscule letters, without deletions, regrets, reflection, imagination, or impatience, promising nothing but their own existence line after line on the page of the notebook in which I write them.” (3) The interpolations and bifurcations are a way of evading definitude and finality; their digressive, expansive nature testifies to the narrator’s privileging of an additive storytelling mechanism in which more than uni-directionality is possible. Especially the interpolations are rather lengthy and involve the reader in detailed description and reflection – the first interpolation (I §100) constitutes a seamless transition into a more detailed description of the morning scenery described in the main narrative, and then extends into a portrayal of the larger surroundings of the room and the house before merging into a memory of Alix. The associative nature of Roubaud’s writing already becomes apparent here.¹⁹⁵ The bifurcations, fewer in number, constitute possibilities leading away from the text, at points even offering alternative endings, as in bifurcation § 194:

If this branch of my work in progress turns into a book, only this ending, albeit provisional in intention, will function nonetheless as the physical ending of the book, an ending for a reader; and my chosen continuity subsequent to certain hesitations – ultimately arranging the bifurcations after the interpolations, themselves following the totality of the story, which forms an autonomous whole – casts it in a particular light, confers upon it a responsibility of sorts: namely, to draw to a conclusion, here and now. (317)

Both the longer interpolations and the bifurcations necessitate a return to the ‘main’ narrative axis in order to pick up the narrative where it was left off, and there must always be a moment of re-orientation within this returning, an instant of disturbance from complacent reading, from being absorbed in the story. This story begins, aptly, with an image of a double photograph (the photo of a mirror and an image) taken at the Moroccan Town of Fez, which is explained as a structural metaphor for the narrative in section four of the story: “the double photograph of Fez will act as an example and model, and at the same time as a memory and a prop: a model of something to the same degree, at least, as the uncertain memory of itself, vanishing, that I would like to ‘capture’ in prose.” (7) From the outset, then, the principle of doubling and/or bifurcation (in this case, a visual bifurcation) is introduced into the narrative; the narrator’s preoccupation with

¹⁹⁵ The interpolations are sometimes detailed to the point of humorous exaggeration: I §103 spends several pages describing the nature of a perfect croissant.

capturing the ephemeral phenomenon of memory is reflected in the novel's branching structure, which mirrors both the process of creative thinking and that of memory: "Instead of proposing his novel as either a mirror unto the world or unto the making of the world as a novel, Roubaud seeks to engender a narrative reflexivity whose only mimetic aspiration is the representation of the movements of memory." (Poucel) Chiefly, the narrator's memories are focused on the death of his wife, Alix. The non-linearity of human remembrance, which works by association rather than by adhering to a strictly logical chronology, causes the narrator to embark on a bifurcating journey through his past, in which "[t]irelessly, in the thought of memory, I abandon myself to new beginnings, backtracking along cross-paths (*interpolations* and *bifurcations*) themselves ramified in a capillary network, in a skein of stories, toward my original goal." (71) This idea of 'backtracking' is reflected in the axial structure of the text, which permits exploration but also necessitates a returning to the main route. The metaphor of *walking* is often used in connection with the effort of recollection; as Calsoyas notes, Roubaud conceives of memory spatially rather than temporally in *The Great Fire of London*, making this novel "unusual within his oeuvre because it experiments with a spatial model of memory rather than a linguistic one." (25) In using this discourse, Roubaud inserts himself into a long-standing tradition of associating walking as physical movement with cognitive processes such as thinking, writing, or remembering; Niccolini regards texts which centre around the theme of pedestrian activity as valuable sources for poetological reflection (15), and Jarvis conceives of walking as "an idea, or a form of thinking." (4) The explorative gesture of walking as suggested in Roubaud ties into these conceptualizations of 'walking as thinking', and the narrator uses the image of the walk to illustrate his desire both to follow a path through his memory *and* to diverge from this path when his recollection branches off into a different direction. Walking thus "opens a path while at the same time following a path determined by the rules; it makes the old territory new, changes it, leaves a mark by making the new path through the old territory an already traveled one." (Calsoyas 36) Remembering his wife, however, is not a pleasant rambling experience for the narrator; rather, he struggles to narrativize his recollections in the sense of progressing along a coherent storyline; his digressions are also a painful indication of how little he is able to confront her death in storytelling. His tale is thus full of admissions of his failure as a storyteller, of "the impossibility of maintaining a simple linear progress, of guiding it in a single direction." (18)

Constantly on the verge of beginning his actual story, which he calls *The Project*, the narrator experiences the frustration of incessantly being lured away from the text by the workings of his own consciousness. The surplus of memory fragments, emotive responses to these memories, and other cognitive experi-

ences, makes it impossible for him to stay on the main narrative track; this is something Roubaud already points to in his earlier novel *Hortense Is Abducted*:

At every moment, it is true, in novels as in life, forking paths appear and choices, alas, must be made. [...] [T]he unpenetrated forest of other possible adventures looms before us, offering its mysteries. You disappear into it a few steps and suddenly hesitate: another path arises, with another fork. Why not open a second digression, a digression within a digression, and so on? (75)

The potentiality of bifurcation seems to be almost overwhelming to the narrator; it does not only grant him multiplicity and possibility, but also presses him to select between alternatives where he does not – and cannot – make such a selection. He expresses this impossibility of choosing, the inescapability of the ‘and – and’ instead of the ‘either – or’ in the following passage:

A choice must be made. But how to choose? The very nature of my narrated subject, as well as its truthfulness, which both precede any intention to tell a story (‘this has been’; ‘this is’; ‘I’ve told you, this was so’) and, even more so perhaps, the very nature of how stories in general operate – all conspire in fact to make such crossroads inevitable, such multiple forking branches on the map, those places of hesitation where no ‘right way’ perhaps exists. (19)

The Great Fire of London thus reflects the agony inherent in having to make binary choices, and tries to evade such agony by accumulating information rather than having choices cancel each other out. Roubaud sees the “plurality of worlds” (213) to stand at the very centre of his textual endeavour. He attributes this to his book’s “condition of presentness” (*ibid.*), which proliferates into various possibilities through the bifurcating narration. The novel thus expresses the potentiality of each present moment in the sense of Bakhtin’s ‘eventness’, but its narrator is never able to transgress this present moment, to functionalize it into a productively continuous sequence of events – in other words, he is never able to write the novel he so desperately seeks to compose. Indeed, he admits to this failure even at the very beginning of the book, in his preface: “I know that *The Great Fire of London* has not been written because the *Project* has failed, because it was destined to fail.” Caught in an eternal state of ‘now’, the narrator is only able to create by branching out rather than by closing in on the story that he actually wants to tell – the story about the death of his wife Alix. He must thus content himself with writing “in imitation of a novel” (71), since his own text lacks any narrative teleology, and admits that his text is “chiefly characterized by the absence of any determined, uninterrupted construction.” (*ibid.*) Tirelessly, Roubaud’s text strains against linear progression, as it “is always grasping for what is irrevocably anterior to itself; it is always and already headed towards its own origin.” (Cal-

soyas 29) *The Great Fire of London* not only offers a surplus of possibility, but also a surplus of potentiality of the moment, which paradoxically paralyses the narrator to an extent that he cannot begin writing the ‘actual’ story, but must succumb to a series of beginnings.

Nonetheless, we as the actual readers, of course, hold a novel in our hands, one that continually forces us to question our expectations about how narrative is meant to function. Progressing by associative leaps rather than by establishing a chronologically linear storyline, we are persistently invited to choose between two modes of encountering the storyworld. While the continuations springing off from one nodal situation are not mutually exclusive in the case of this novel – meaning that they do not present alternative, but rather *cumulative* versions of the storyworld –, they do constitute decision points at which the reading process itself must be reflected. The novel itself provides no clear ‘directions’ as to how to choose between its different continuations, no playing manual for this obviously aleatorically inspired text. The choice is as random as are the workings of memory. Roubaud is heavily influenced by the work of Oulipo, being himself a member of this group, and the novel makes numerous references to Oulipo and its work, which is characterized by mathematically inspired principle of combinatorics and chance. In fact, Laskowski-Caujolle has identified Robaud’s text as featuring “*mathematical style or mathematical prose*. Reading his novel means breaking with old linear reading habits (though linear reading is still an option) and – like the reader of a mathematical text – engaging in a new form of dialogue with the author.” (8) The combinatorial nature of *The Great Fire* surfaces in its largely haphazard associations between individual memories and text segments; reader choice must necessarily be haphazard as well because no information is provided at the moment of choosing. This, again, also refers back to the fact that choice in this FN is largely inconsequential when it comes to the status of the storyworld and the characters within it – the text allows combinatorial and random behaviour because it is not reliant on the reader making the ‘right’ choice. Roubaud remains deliberately vague on assigning a certain purpose or meaning to the individual branchings of his tale; he admits that “the ‘why’ of any given interpolation, or bifurcation, is passed over in silence; a ‘why’ whose answer aims to shed light on the story’s ultimate aim: its completion and the revelation of what it is.” (242) Since *The Great Fire of London* thrives on incompleteness, on ceaseless beginnings, it is logical that it wants to evade definitude regarding the rationale behind its continuations. What Roubaud is interested in is creating the possibility of “a ‘potentially infinite’ prose. [...] As a matter of fact, such a possibility can indeed be envisaged, which is another overly belated ‘discovery’ of this narrative.” (150) *The Great Fire* is not an ‘infinite’ text in the sense that Queneau’s *Cent mille milliards de poèmes* is (and even in this work, there exists

a finite, if incredibly high, number of possibilities), but it is a text which gestures *towards* infinity in its extensions of the main story through branches which extend the narrative. This is a FN that lures the reader away from the text, only to show her additional possibility which cannot be contained by just one story, but must branch and expand into the bifurcations and interpolations.

5.5 Temporal Experiments in the Digital Web: Stuart Moulthrop's *Hegirascope* (1995/1997) and *Pax* (2003)

Stuart Moulthrop is one of the most prolific hyperfiction authors of the day; both as creative writer of hyperfictional art and as academic hypertext critic, he has significantly advanced the development of this digital genre from a largely text-based phenomenon to a multimedial hybrid between text and game. Though published roughly fifteen years ago, his hyperfictional novel *Hegirascope* remains one of the most prominent and critically acclaimed works of the genre.¹⁹⁶ Indeed, Lee has termed it “the most typical hypernovel” (in reference to Victor Shklovsky’s assessment of Sterne’s *Tristram Shandy* as “the most typical novel in world literature”) because it “transgresses the boundary-conventions of early hypertext, inhabiting new forms made possible by digital technology.” *Hegirascope*’s experimentality lies in its attitude toward time and gameplay; it is one of the few hyperfictions in which reading (and/or playing) time manifests itself as a decisive factor within the overall reception experience. That is, *Hegirascope* operates under the concept of *temporal pressure*, a factor usually reserved for more openly ludic formats such as the computer game. The later *Pax* (2003), written as a response to the fundamental insecurity and confusion of a post 9/11 America, began, Moulthrop explains, as a “meditation on flying and falling, on judgment and its lapses [...]; but above all, it configured itself as a system of imperfect information.” (“*Pax*, Writing, and Change”) *Pax* generates narratives of an uncertain world, its voices oscillating between the articulation of non-sense and reflections on what it means to travel (on both a physical and a metaphorical level). Temporality is important here, too, as the reader/player must act within ‘real’ time, which continually progresses and thus works ‘against’ the reader in a similar manner to the time-pressures operating in *Hegirascope*. An analysis and comparison of these two interactive, digital FNs will trace the functionalization of nodes, the implementation of a temporal dimension into hypertext, and the relation between text and game in Moulthrop’s works. These are rare examples of textual FNs where time operates as a determin-

¹⁹⁶ A first version of *Hegirascope* was published in *World3* in 1995; a second online version has been available since 1997 at <http://iat.ubalt.edu/moulthrop/hypertexts/hgs/>.

ing factor rather than merely being an aspect of individual reader performance – time, indeed, may be what matters most in these texts.

Hegirascope is a collage of dreams, journeys (both literal and metaphorical), and reflections on the very sphere into which it is inscribed – the World Wide Web.¹⁹⁷ Structurally, *Hegirascope* is a classical hyperfiction, connecting segments of text through nodes. In its reliance on nodes for the reading experience, it is also, of course, a paradigmatic future narrative, implementing choice situations in order to engage the reader in activating narrative content. Only one textual segment is available to the reader at any one moment, and the story architecture must be explored by navigating through the nodal structure. This nodal structure is, as is also characteristic of most hyperfictions, networked with bidirectional edges, and thus allows (indeed, insists on) the revisiting of individual nodes: “It is always possible to come back to the same node after a while.” (Eskelinen, “Omission Impossible”)¹⁹⁸ The reader does not have access to a structural map of the overall architecture, but Moulthrop does include, for those readers who “may prefer a more stable reference point [...], an index to particularly interesting places in the text.” (“Introduction”) This is a three-column list of links the reader can access *without* time pressure (more on this time pressure below). Furthermore, she can trace her reading path through the story, as links that have already been visited change colour from blue to black (or white to grey, where the background is dark), a very common marking of already accessed digital links. This may help her in remembering where she has previously gone and which alternatives she has not yet explored, thereby optimizing her navigation through the text by avoiding unnecessary loops and repetitions. Some sense of direction within the hypertextual reading experience is therefore provided in Moulthrop’s text, working against the domination of complete randomness – as will be explained below, *Hegirascope*’s affinity to gameplay may explain this possibility of goal-oriented optimization that seems unusual for (particularly early) hypertext narratives.

Unlike in many other hyperfictions, the links in *Hegirascope* are not scattered (or even hidden) within the text, but placed around it in a neat symmetrical fashion. On every screen following the introduction (which itself offers no links), there are four clearly marked, underlined links surrounding the body of

¹⁹⁷ Lee offers a similar description: “Collage-like in form, heterogeneous in content, *Hegirascope*’s world is a kaleidoscope, its configuration shifting in tandem with changes of perspective.”

¹⁹⁸ Eskelinen further describes the circular structure of this hypertext as follows: “Despite the fact that those thirty seconds might not be enough for grasping or even merely reading the node, the recurrent cycle of *Hegirascope* allows one to reread its nodes as many times as one wishes” (“Omission Impossible”).

narrative displayed. This creates an effect very different from hypertexts that work with hidden links (most famously, Michael Joyce's *afternoon: a story*), or even from links that are integrated into the text, as *Hegirascope* openly flaunts its continuations and associates them with the rule system of the text instead of with the narrative itself. Placing the links outside of the body of text, a sense of spatial distance is established between what is read and what is offered as a choice for continuation; this is not a text which proposes an organic connection between narrative and node in the sense of, say, Shelley Jackson's *Patchwork Girl*, but which makes a clear distinction between text and the possibility of navigation, as the former is non-responsive while the latter allows the activation of new content. *Hegirascope*'s self-referentiality concerning the hypertextual status of text and node is thus made apparent in a very visual way; moreover, the literal distance between narrative and links is reflected on the semantic level as well, as separation rather than connectivity functions as the governing principle of the hyperfiction's textuality: "*Hegirascope*'s narratives and non-narratives mostly stay local and independent. In light of content, the work's fragmentary lexias are heterogeneous." (Lee) Though the link words or phrases pick up on what is expressed in the main body of text, and thus pose as gateways to further explore certain concepts or thoughts, the link words and the content offered by selecting one of them do not initially appear to have a clear connection to each other – in an interview with Noah Wardrip-Fruin, Moulthrop has termed this hyperfiction "mercilessly disjunctive."

Hegirascope begins by withholding any sense of agency, turning the reader (who may be eager to start choosing her way through the story) into a mere spectator. The first eight lexia appear in a quick sequence and offer no nodes; we are presented with short textual statements and reflections, boldly appearing in yellow letters on a black background, without the possibility of interacting with the text in any way. The statements self-reflexively comment both on *Hegirascope*'s status as hyperfictional narrative and on digital textuality at large, including phrases such as "What if the word will not be still?" "Structure without order", and "Where you are going there are no maps." This technique of opening a hyperfiction with what could be likened to an almost filmic sequence (through, of course, the visuality of this sequence is highly minimalistic here) is very prominent in recent video games, which often present non-interactive 'cut scenes' as a start into the game world. Here, the effect is not so much a visual immersion into the storyworld (though, of course, the basic design of coloured text against a differently coloured background is introduced), but an introduction into the hyperfiction's central receptive mechanism: the text is an autonomous agent, acting and reacting on its own if the reader does not make a decision quickly enough. If the reader, after having encountered a new segment of text, waits more than thirty seconds to choose a new link, the

text itself automatically selects a continuation. *Hegirascope* is thus what Ryan (*Avatars* 26) has called a “dynamic medium”, where “the text imposes a tempo, and consequently time limits, on the act of perception”, and what is termed an *active medium* in the context of FNs – a medium that generates content without any active user input. Instead of functioning as a straightforward mechanism of enablement, the links in *Hegirascope* counteract the notion of ‘empowered’ hypertext reader that has so often been hailed as a way of revolutionizing text-reader relations, and stages the text itself as a force to be reckoned with, as an antagonistic opponent rather than an entirely controllable entity.

Time is the decisive factor within the reading performance of Moulthrop’s text, and it shapes this FN into an openly temporal experience. The (arguably pleasurable) activity of leisurely exploring a hypertext and thus slowly grasping its larger structural configuration is forfeited here to create a fast-paced, temporally pressurized reading performance.¹⁹⁹ We must remind ourselves that this is one of the crucial differences between print and electronic media – only the latter is able to introduce temporal restriction, or indeed any kind of temporal dimension, into the reading process (a print novel could do this, of course, by including a time measuring device such as an hourglass which limits the reading time per section, but then, this is not a medium-intrinsic time pressure). The imaginary clock ticking away in the background will influence every decision situation in which the reader finds herself, as she must choose within a very short amount of time if she wants to avoid the text choosing *for* her. The motivation of ‘beating the text’ to the next segment is a crucial part of interacting with this hypertext, which poses as a mixture between conventional literary textuality and highly interactive gameplay. From the outset, the text establishes itself as an antagonist to the reader, who must be quicker than the text in order to determine her own reading path through the story: “Not to be humiliated, not to be embarrassed by the machine, one has to countermand it, finding ways to subdue it, tame it, and eventually disembody it.” (Lee) This sense of ‘beating the text’ associates *Hegirascope* with Callois’ concept of *agon* or competition – as a hyperfiction, Moulthrop’s text “operates like an average adventure game and can be considered to be a hybrid of narratives and games.” (Eskelinen, “Omission Impossible”) What complicates this notion of *agon*, however, is that there is no clear goal to be pursued in *Hegirascope*: unlike the genre of adventure games referred to by Eskelinen, this hyperfiction does not have a strictly teleological configuration in the sense of ‘solving a puzzle’ or ‘winning a quest’, and the reader is given no hints

¹⁹⁹ Aarseth has commented on the difference between *Hegirascope* and prior hypertextual narrative: “The previous hypernovels could be contemplated as the reader’s pace, just as any other novel, but *Hegirascope* does not allow for contemplative reading [...]” (*Cybertext* 80).

as to what could be the desired objective in reading it. Surely, an exploration of the narrative's scope and configuration is one possible end, and this will likely also grant the reader a sense of satisfaction in having discovered and travelled Moulthrop's fast-paced web; however, such an attempt at exhaustively or at least satisfyingly exploring the topological structure of a digital text is part of most, if not all, hypertextual reading experiences. The game-like nature of *Hegirascope* seems to promise something beyond this, but as one of its first lexia informs us, "The Traveler is the Tale" ("Where Have You Been in the Net Today?"). This hyperfiction shifts the focus on the reader/player and her role of playing 'against' the text, trying to cope with its restrictive temporality and her desire to make self-sufficient decisions without being left behind by the medium.

The notion of playing against the text (and vice-versa, as the text also plays against the reader through its status of being an active medium) surfaces especially clearly when the reader is presented with 'dead' nodes which yield no further information, though they pretend to do so. In these cases, the text very clearly presents itself as an antagonist that tricks the reader into a dead end against her better knowledge. The very first page containing active links re-states the initial question posed in the non-interactive introduction: "What if the word will not be still?" Selecting the upper right-hand link "now this", we access the "Catalogue of Dreams #1004", which, in turn, leads to an inactive node both by the link "control" (which, of course, takes on a heavily ironic undertone through this) and by the default link that the text chooses. The reader encounters only the word "click" in yellow letters on a black background; the apparent invitation to access this node turns out to be a trick, as "click" is only a mock-node, one that does not offer any continuation beyond itself.²⁰⁰ In order to continue the reading process, the reader must activate the back-button to return to the preceding page and try out another option. Other such 'traps' include black or white pages without text (as in "Epigraph", which leads to either "Fix it" (white) or "Baroque" (black)) which contain no further links, and which also force the reader to backtrack her steps onto the previous functioning page.²⁰¹ *Hegirascope* thus both self-reflexively plays with the concept of the link and withdraws itself from the control of its user, demonstrating a life of its own in a very real sense. The potentiality of any nodal situation within the hypertextual format is undermined both by the text's individual agency and by the inclusion of non-traversable nodes. This relativizes

200 In this respect, *Hegirascope* mirrors John Barth's mock-hyperfiction *Click*, in which all of the nodes are inactive and non-yielding.

201 Lee reads these dead ends as a commentary on the prevailing theme of ending in *Hegirascope*: "Their seeming emptiness may be interpreted as a metaphor suggesting termination of a certain progress or concept."

the amount of freedom of choice that the reader has in making a choice within the textual universe of *Hegirascope*, and it also decreases the sense of agency that she will experience, as the text constantly attempts to withdraw this agency from her. As clearly marked and accessible as the links around the body of text are on every page, as clearly do they work against establishing a sense of complacency and controllability.

Hegirascope is one of the first hypertexts that actively employ visuality as a separate factor within the creation of textual experience. Each page displays a vibrant background colour (except those which, as described above, contain no further links and are coloured either white or black), and the textual elements are presented in a different colour. Lee has commented on the significance of the background colouring, which, according to her assessment, “have an important role in the text. The whole lexic world could be divided into several sub-worlds according to their background colors.” That is, the colouring of the individual pages goes far beyond a mere self-contained visual effect – they are a means of ordering certain themes or thoughts into coherent groups. This ‘visual aid’ is, again, a method of cognitively sorting out *Hegirascope*’s large and sprawling textual configuration, which presents itself as a space full of loopholes, dead ends, and rapid motion. In fact, Moulthrop himself characterizes this text as having a spatial rather than a temporal interest for its starting point: “I started *Hegirascope* as a meditation on what space meant on the Internet, what space meant on the Web.” (Wardrip Fruin, “Interview”) The digital space he created in his hyperfiction is characterized by disjunction rather than coherence, and presents itself as a dizzying labyrinth to the reader who must not only keep time in mind, but also cognitively keep track of where *she* has been in the net. Space and visuality are important in Moulthrop’s work from the beginning, and develop into more openly graphic representation in the later *Reagan Library* (1999) and *Pax*, which we shall turn to in what follows.

Pax: An Instrument (2003) is at once an extension and a transformation of the temporal paradigm presented in the earlier *Hegirascope*. Fusing visual representation and narrative, *Pax* presents itself as a multimodal hyperfiction in which text and image enter into a playfully reciprocal relationship; the screen is split into a slim column of text and a much larger portion of animated graphics, where naked bodies ‘float’ upwards, while the faces of these figures appear in the bottom right-hand corner of the screen. The user can interact with this hyperfiction by clicking on the bodies themselves, which are then arrested in their upward movement and ‘produce’ utterances that appear in the text column. The figures are thus literally ‘lent a voice’ by the interaction of the reader/player; if the latter does not click on them, they remain silent and disappear. Perpetually in movement, the bodies only (re-)gain control through the activation of their voices by the reader/player,

and this activation is visually reflected by their 'awakening' after they have been clicked on for the first time, after which they gradually grow more active and *reactive*. Parallel to this accumulation of vitality, the narratives the bodies generate increase in meaning and coherence. *Pax* presents human physicality in its most existential form; its figures are naked and immanently out of control, and gain narrative significance only within the interplay of text and reader. In this sense, the bodies also reflect bodies *of text*, which similarly depend on a reader or user for meaning generation – this, of course, applies even more strongly to the digital genre, where the user takes on the central role of constructing and combining text within the electronic labyrinth of hypertext.

Pax, which David Parry has termed text that is both confusing and confused, was incited by an incident at the Dallas-Forth Worth Airport in March 2003, during which Moulthrop, amidst a group of fellow travellers, was held up by airport security personnel due to an unspecified security warning. The resulting anxiety of the travellers, which was due above all to the lack of information, was the spark that ignited *Pax*, though the deeper seed lies buried in the months and years after 9/11, a time during which confusion and uncertainty had unalterably invaded the American way of life. Moulthrop resumes that "*Pax* began on that terrible day the world ended; or strictly speaking, several months into the end times that followed." ("*Pax*, Writing, and Change") The structure of this hypertext mirrors this sense of uncertainty, as *Pax* offers no coherent narrative, but generates an almost musical polyphony of questions and utterances. Indeed, Moulthrop regards this hyperfiction as a 'textual instrument' (and thus its subtitle fittingly reads *An Instrument*, as well), and has noted that "[i]ts technical motivation came from a remark made in early 2001 by John Cayley, who noted that we play many things besides games, including musical instruments. What, he wondered, would textual instruments look like? One possible answer is *Pax*." (*ibid.*) *Pax* combines elements of video gaming (most notably, the visual interaction with bodies) and narrative (the text generated on the right hand side of the screen), and Moulthrop reinforces this notion of *Pax*'s hybridity when he states in the work's introduction that "[t]his is not a work of literature in the ordinary sense; neither does it have the formal properties of a game, though it is meant to be played as well as read." ("about") *Pax*'s status between text and game testifies to the artificiality of separating these categories in FNs, and especially those of the complex kind: the fact that a text 'tells a story' certainly does not mean that it cannot have a ludic attitude, or even a ludic structure. Future narratives invite ludic behaviour through their implementation of choice and agency, and *Pax* mirrors this affinity for gaming in its use of visuality, its temporal dimension, and its principle of storytelling through interactivity.

Pax features, like the majority of hyperfictions, a network structure with bidirectional edges. The reader/player, by clicking on the bodies to generate text, encounters the same figures multiple times, and can thus decide whether to activate them or leave them to their muted, passive flight. Their narratives, however, do not circle: they develop, ask more questions, pick up on the story where they left off when we last encountered them. This hyperfiction thus works by an *additive* principle, building on narrative content instead of replacing it; the more the reader/player engages with the figures, the more text they produce, and the more we learn about their experiences in an ever more confusing world (this makes it distinctly different from *Hegirascope*, which does not employ such an openly additive mechanism). The experience of ‘playing’ *Pax*, too, works by the principle of accumulation, and grows more intense as time passes – there are ever more figures on the screen to interact with, they spin faster and faster, and as the screen grows darker, it becomes increasingly more difficult to literally ‘handle’ all bodies and the stories they want to tell. This lends the hyperfiction an effect of temporal pressure, as time perceptibly passes and as it does, the chance to access all narrative content by each individual figure grows slimmer. The passage of time is marked by the inclusion of a digital time display on the left-hand upper corner of the screen – we begin the story at 12:00 p.m. with the title “Shaken out of time” and end it when the screen turns completely dark twelve hours later. The first signal that time is running out is the marking of ‘half-time’, at which point the bodies no longer move from bottom to top, but reverse to fall from top to bottom. The gradual dimming of the screen is, of course, a further visual signal of temporal development, and the utterances of the bodies correspond to the gradual loss of time. “No matter what you try, you will always lose the light”, says the character of “mira”, and this mirrors exactly the experience of playing this textual instrument – against the passing of time, we are as helpless as the floating bodies, and we can only try to make the most of the game while it lasts. *Pax* thus features a rather sceptical outlook on the future: advancing into time means losing time. The bodies themselves are, of course, ‘caught’ in time quite literally, as they revolve inside clock-faces as human clock-hands, and in this, they mirror the position of the reader/player, who must surrender to the internal clock of *Pax*. This clock is limited to twelve hours (which, however, pass much quicker than real time and can thus be read as internal game time), and the more the reader/player interacts with the figures, the faster the clock advances. As Moulthrop himself explains, “[t]he time [...] jumps ahead whenever the player interrogates a character. Interaction carries a time cost.” (“*Pax*, Writing, and Change”) That is, the player must accept the loss of playing time whenever she generates text, and the more intense her engagement with the figures is, the shorter it will also

be. In this sense, *Pax* evokes the impression of playing *against* time that already functioned as a determining game principle of *Hegirascope*.

The temporal experiences that *Hegirascope* and *Pax* offer are unique in the group of textual future narratives in that they functionalize the text as an active agent that offers an interactive experience determined by the passing of time. Whereas printed FNs are, as a rule, never able to implement temporal pressure – because here, the text cannot function independently of the reader/player – digital texts may establish the medium as a ludic opponent of the reader/player. The distinct sense of ‘losing time’ that is evoked in both of Moulthrop’s hyperfictional works makes us aware of the relationship between nodal structure and temporal development: the offering of choice to the reader brings with it not only the possibility, but the *necessity* of reacting in time if she wants to create an individual run of the textual architecture. The impression of text playing against reader is also evoked in the last digital future narrative that is examined in this chapter: Andrew Plotkin’s interactive fiction *Spider and Web* (1998), where time works against the reader in a very different, but equally fascinating way.

5.6 Do It Again, and Better This Time: Andrew Plotkin’s *Spider and Web* (1997–98)

Andrew Plotkin’s interactive fiction *Spider and Web* has been hailed as one of the most successful and intricate recent variants of the genre, and was awarded the *XYZZY Award* for Best Game in 1998.²⁰² A conventional spy story on the surface, *Spider and Web* reveals itself as a highly self-conscious examination of the storytelling possibilities of interactive fiction, working on and with different narrative levels, voices, and including metalepsis and unreliable narration in its storytelling structure. As Plotkin himself describes his work in the “about” section of the game, “[i]t is a game about deception, incomplete knowledge, and the ways that stories in other people’s heads can be the best lies. It is also about the role of the narrator [...] in interactive fiction.” The central conceit of the game, namely the fact that the events of the game that the player experiences in the course of solving *Spider and Web*’s puzzle are *already past* at the point of playing them, lends this interactive fiction a dimension of retrospectivity that is unusual for this type of FN, where the story usually emerges only through the interactions of the player, and is in no way ‘set’ before an individual run is embarked upon. As such, *Spider and Web* is a unique case of future narration that combines a past narra-

²⁰² The *XYZZY Award* is an award for highly innovative interactive fiction, and has been awarded annually since 1996.

tive with emergent gameplay, and resolves this apparent contradiction with an ingenious ‘twist’ toward the end of the game.

As the player character of *Spider and Web*, ‘you’ are a captured spy being questioned by an unknown man in a futuristic interrogation chamber. Gradually, the player character tells the interrogator how he entered an enemy laboratory, collected information and various items there, and was captured by the guards of the complex – or, alternatively, how he escaped, if the game is played successfully.²⁰³ After an introductory narrative setting the scene (this is an extremely limited narrative variant of a ‘cut-scene’ in computer gaming), the player finds himself in a narrow, dark alley facing a plain metal door, which he cannot open (yet); he then walks away from it. From this situation, he is suddenly ‘transported’ to the interrogation chamber, where he must start to answer the interrogator’s questions, who contradicts (and thereby implicitly questions the validity of) the version just played through, in which the player has walked away from the door: “If you’d had enough sense to walk away from that door, you wouldn’t be here. You don’t and you didn’t and are: we caught you. And you’re going to start telling me how you got through that door.” The interrogation thus takes place one diegetic level ‘above’ the actual playing process, which is embedded into the questioning as retrospective memory flashbacks of the player character ‘enacted’ by the player. This means that the flashbacks are *played out* rather than narrated, and each time the player makes a wrong move, he is taken back into the interrogation chamber for more questioning by the interrogator. In this way, *Spider and Web* is “a memory, or more precisely, is being presented mentally as a sort of reconstructed memory.” (Montfort, *Twisty Little Passages* 211) The two time levels of this interactive fiction, comprised of the actions of the player ‘inside’ of the retrospective memory and the scenes of examination, imply that the actions of the player character have already happened before the game starts and are carried out in retrospect. To repeat: this is a highly paradoxical proposition for interactive fiction, which usually works on the premise of story development through the interaction of a user, the events of the story being decidedly *undecided* at the point of starting the game – indeed, one could say that this is arguably the primary attraction of engaging with an IF in the first place. In fact, the retrospectivity of Plotkin’s work has, despite the overwhelmingly positive reviews of the game, caused some dissatisfaction within the player community; as one player puts it, “[i]f the plot has already been predetermined – down to every last detail, no less – then I’m not sure what’s the point of playing it in the first place. I might as well read a book.” (www.carouselchain.com) The framed memory structure of

²⁰³ Unlike the rest of this study, this chapter designates the player character as ‘he’, because this male gendering is heavily suggested by the text itself.

Spider and Web seems, therefore, to point into the direction of (past), print narration rather than toward truly emergent gameplay (causing the above quoted irritations of players expecting an 'open' game structure), but Plotkin finds a way to break through the fixity implied by the retrospective format (more on this below).

The transition between frame story and flashbacks is marked by a "glaring light" that appears whenever the player character is taken from the action itself to the interrogation chamber, and thus switches time levels. At this point in the game, there is only the option of hitting "any key" to continue, and this action will instantly transport the player to the level of questioning. The move into the interrogation chamber is thus non-optional and must be carried out after each segment in the flashback memory; it is not a node, but a default setting, which allows for no choice on the part of the player, a 'bottleneck' through which the player must pass in order to get to the next part of the story. Chapter 4.5.1 has identified this sort of player coercion between narrative segments as one of the central pitfalls of IF (which tends to severely limit freedom of choice at transitional points from one segment to another), but in *Spider and Web*, the feeling of coercion is ingeniously motivated in a thematic sense. The subjection of the protagonist to the methods and whims of the interrogator – characterized by *physical* restraint, as the protagonist is strapped to a chair and his head is connected to a computer by wires – is mirrored in the unavoidability of returning to this scene of mental and bodily distress over and over again. Plotkin here comments upon IF's tendency to restrict player action in order to direct game development by transferring this restriction onto the situation that the player character finds himself in over and over again. Moreover, while the player *within* the game has the possibility of carrying out a high number of commands and actions, the examined protagonist is limited to the answers of 'yes' and 'no' in the interrogation chamber; he cannot perform as a dialogue partner equal to his questioner, nor does he get the chance to defend himself verbally. The passivity of the player character in these scenes strongly contrasts the often action-packed experiences inside the story level. This also transports a very limited sense of agency in the scenes of questioning, as the binary 'yes'/'no' option within the dialogue does not allow any action besides triggering responses from the interrogator. Here, too, the bodily confinement of the player character is reflected in his restricted capability of making decisions. The entirety of the interrogation level, including the transition to this level, is hence marked by a significant degree of restriction, contrasting the high interactivity characterizing the IF experience on the hypodiegetic gaming level.

The interrogator forces the protagonist to revisit certain situations until he 'gets it right', and so the playing experience of this IF resembles a constant replay

of decision situations with the goal of result optimization.²⁰⁴ *Spider and Web* both implements *and* highlights, in other words, the circular, networked nodal structure of interactive fiction, which permits the re-tracing of prior paths in order to make more successful choices the second time around, except that this strategy is not performed by the player character at will, but under the coercion and supervision of the interrogator. The player character of *Spider and Web* is, indeed, compelled to practice this method of re-trying; the examiner frequently comments on the inefficiency of the player's action within the game, and thus serves as game master and interrogator at the same time: "Please, again", he tells the player character after a failed attempt to use a scan scrambler, "and using the magic less clumsily." In both of these roles, he displays his superior knowledge about what has happened on the game level,²⁰⁵ commenting on the action of the player 'inside' the story and providing subtle hints regarding their effectiveness.²⁰⁶ The comments on the interrogation level thus "act as a sort of hint system for much of the game, since your various mistakes draw out comments that indicate what he's [i.e., the interrogator] looking for and narrow down the scope of your actions through repeated tries." (Thornton)²⁰⁷ Again, this is surely due in part to the complexity of this IF, which the reader/player arguably could not solve without these guiding comments of the interrogator, but his remarks also serve to expose this FN's rule system, which reveals itself as enforcing the mechanism of re-trying as its central aspect. More than is common for digital interactive narratives, Plotkin's work self-referentially points toward its status *as game*, and toward the necessity of following specific rules in order to achieve optimal results.

The differing levels of information between the player and the protagonist (or player character) in *Spider and Web* effect a curious splitting of the ordinarily unified persona of the IF player. Though they are ostensibly one and the same person, player and player character operate under highly different knowledge

204 The game has been likened to *Groundhog Day* (1993; dir. Harold Ramis): "The challenge of the first part of the game is to replay each scene in such a way that it matches the evidence found by your captors. It's an awful lot like the movie *Groundhog Day* in that you do everything over and over until you get it right" (Thornton).

205 As the following comment, for instance, reveals: "I look forward to examining the others (i.e., the pieces of equipment). Not...that they did you good in the end."

206 Again, the following commentary may serve as an example: "The guards did not see you in that corridor, either. Please refrain from having them do so."

207 This mechanism of repetition has prompted one reviewer to compare Plotkin's game to the film *Groundhog Day*, where the protagonist relives the same day over and over again: "In fact, the interrogation had now adopted 'Groundhog Day' rules – repeat the current scene until you carry out what is required, with hints courtesy the PC's captor" (Chung).

conditions in this game; as Ingold has noted, “*Spider and Web* (...) places a distance between player and player character” (238), and this distance is the prime motor for creating tension within the playing experience. Since the “protagonist knows more about what’s happened than the player does” (Muckenhoupt), the latter can only gradually try to reduce the information gap by continually re-entering the game and trying out different strategies. He must ‘catch up’, so to speak, with his in-game *alter ego* if he wants to play the game successfully. The distance between player and protagonist is, however, suddenly reduced after about two thirds of the game, at which point the player finds himself in the interrogation chamber which was, until now, the setting for the frame narrative of the protagonist; he encounters the chair in which he is bound during the interrogation and sees the interrogator as a dim, shadowy figure: “The figure is nearly not there – like shadows at the edge of your sight, or a dream of blindness. It crawls away from your vision; your eyes feel thick and strained.” This ‘ontological’ switch from playing to storytelling level is the first signal that the boundaries between these two levels are beginning to disintegrate, causing them to merge into one; once back in the interrogation chamber, the interrogator comments upon the scene just experienced: “That was unnerving, you in this room... was that a true memory? The readings were odd, but that might have been the emotional loading of the chair, the controls – where you truly in here?” The interrogator’s questionings about the truth-value of the memory inside the interrogation chamber initially seem odd, but start to make sense once the player realizes that what he has been telling during the interrogation may not always have been truthful. With a radical twist, the game introduces the concept of unreliable narration into its structure, and this twist appears at the very moment that the player steps ‘outside’ of the story level and starts “playing for real” (Thornton), as he is now able to act on the story level instead of merely providing ‘yes’/‘no’ responses.²⁰⁸ In other words, the narrative level merges with the game level, and only once the player has figured this out, he can carry out the actions necessary to win the game: they are not necessarily the ones that he has been relating to the game master. The challenge now becomes differentiating between the fabricated stories the protagonist has told the interrogator to confuse the latter and what is

208 Thornton further comments on this central twist of the game as follows: “[...] about two thirds of the way through the game, there’s a huge shift. You escape and are suddenly playing for real. And that’s when you find out that there were certain things you lied to your interrogator about, and figuring out what you told him vs. what you really did becomes the major challenge of the game.”

‘actually’ supposed to happen on the game level.²⁰⁹ Only by deciphering the true version of events is the player able to escape the laboratory. The game gives subtle hints on the dubiousness of certain statements, rendering the text in italics to signal that a statement may not be entirely truthful; for instance, certain objects or devices are characterized as not being important, whereas they actually fulfil crucial functions in the escape plan of the protagonist. Any time the script is italic, the protagonist is thus trying to hide something from the interrogator. This “reliance on font differentiation to highlight a crucial piece of information” (Chung) is a visual marking of unreliability, and one of the very few cases where an interactive fiction actually operates with graphical indicators that extent beyond regular script. The ‘voice’ of the parser changes here, so to speak, and once the player has realized that this italic output is questionable, he can operate under a different set of premises regarding the information provided. *Spider and Web* thus works with *incomplete information* at nodal situations, and withholds significant facts from the player to create a more complex and open gaming experience: “You get to choose, but you don’t get to know all the final ramifications.” (Short) In this sense, Short has argued that

There’s something about it [i.e., *Spider and Web*] that is [...] true to morality in real life: not only do we often have to make our decisions blindly, but we cannot always know for certain even after the fact what the outcomes were or would have been. The difficult ending shifts the onus of decision entirely on you: you pick one way or another because that’s what seems right to you. The author will not afford you the kindness of telling you what you should have done.

This sense of ‘openness’ of choice making contributes to the effect that this interactive fiction thrives on ambiguity and conflicting information, and thus creates rather life-like decision situations where not all parameters relating to a decision are equally knowable and accessible.

Regarding the factor of consequence, *Spider and Web* includes reversibility in its bidirectional nodal structure and thus reduces the immediate impact of a choice’s consequence by the awareness that we can ‘undo’ the last move if it has been a fatal one.²¹⁰ Mirroring the heavily thematized issue of reversibility

209 Also see Yorke-Smith on this point: “The turning point for the interactor is a moment of intuition: in reconstructing past events under interrogation, the PC has woven a fabrication. His unreliable narration deceives the interrogator. The puzzle lies in the interactor perceiving the truth (hinted subtly throughout) and, at the critical moment, using this knowledge to escape; it is both satisfying and pertinent” (117).

210 The ‘about’ section of the game informs the player about this possibility of undoing an action: “It is possible to make a fatal mistake in this game, but you will immediately know you have done so. You can always ‘undo’ after death, and then fix the mistake.”

on the framing story level – i.e., the player character having to replay scenes over and over until he ‘gets it right’ –, the possibility of retrying is written into the game level as well, and player character death is not final. This is arguably necessary to make a successful playing of the game possible, as *Spider and Web* features an extremely high level of difficulty concerning the puzzle that must be solved. This IF places the focus on the optimization of decision processes and game agency, and less clearly enforces consequence as a matter of unsuccessful choice making. The most frequent consequence of a wrong action or decision on the game level is the sudden and abrupt return to the level of interrogation by the announcement “Glaring light...hit any key to continue,” which terminates the action the player has just been involved in, but not the overall gaming experience. After having received additional information or corrective hints from the interrogator, the player switches onto the gaming level again and attempts to solve the task successfully. When having made a wrong decision that results in being killed or captured, the game offers the possibility of fixing this mistake with the help of the ‘undo’ option. The factor of reversibility is thus a central element of the overall gaming experience, and connects this innovative IF with the genre of computer games, as many recent games also operate with this reversibility of player action.

The simple either-or of Choose-Your-Own Adventure has been outgrown, it seems, by electronic text games that align themselves much more closely with other forms of digital gaming regarding the implementation of consequence. *Spider and Web* demonstrates this by toning down the absoluteness of player decisions, which may be overturned if they prove to be fatal. We have moved very closely toward digital computer gaming in terms of decision dynamics, and though Plotkin’s interactive fiction thrives on non-visibility (that is, on providing the player with nothing but text with which he must explore and navigate the storyworld), the issue of reversible consequence strongly connects this contemporary IF with most modern-day video gaming adventures. The threshold between text and game is notably blurred in this FN, which privileges text over graphics but, at the same time, strongly relies on gaming dynamics such as the ‘undo’ function, different temporal levels, unreliability, and an ethical dimension (who can the player trust? Is he willing to deceive the interrogator in order to advance the game?). In this, *Spider and Web* proves to be a ‘hybrid’ future narrative, and transcends strict divisions between textual and ludic experiences in search of a narratively and ethically complex interactive adventure.

This seems to be the direction into which FNs are heading; phenomena such as VR, AI interactive drama, and the development of new medial narrative such as iPhone or iPad gaming testify to the fact that storytelling is gearing toward the merging of different media, genres, and technologies. This, again, is not to

discount the medium-specificity of different types of FNs, which, as this study has shown, play a significant part in shaping nodal narrative structures and their implementation of consequence, reversibility, and player interactivity. However, the lines between text and video gaming are losing their absoluteness, as alternate reality games, recent hyperfictions, and IFs such as Plotkin's have shown, and the interactive reading/playing experiences they enable are characterized by a degree of openness that has taken the FN a long way from its beginnings in hard copy textuality. Films, too, increasingly probe the potential of nodal mechanisms that stand at the heart of future narration; the 2011 film *Source Code* (dir. Duncan Jones), for instance, features a protagonist who must repeatedly re-experience the last eight minutes onboard a Chicago commuter train, which explodes after these eight minutes are up. Afghanistan veteran Colter Stevens is captured inside the 'source Code', an experimental government device, and has the ability to revisit the train in order to locate the bomber (who has another, far bigger, attack planned). The central nodal situation – going back into the train to stop the crime – is non-participatory on the side of the viewer, but forcefully demonstrates the film's interest in exploring situational possibility and the multiplicity of potential continuations, an interest which links it to earlier FN films such as Krzysztof Kieslowski's *Blind Chance* (1987), Tom Tykwer's *Run Lola Run* (1998), or Peter Howitt's *Sliding Doors* (also 1998). These motion pictures stage openness by implementing nodes as a structural conceit, which points toward a further dissolution of genre boundaries – namely, the boundaries between film and gaming. This becomes especially apparent in interactive DVD movies such as the CYOA animated film *The Abominable Snowman* (2006), where the viewer can choose from 11 different endings, or *Dragon's Lair* (1999), where the viewer similarly controls the actions of the film's protagonist. The ubiquity of FNs not only transcends the limits of individual media confines, but also increasingly blends storytelling mechanisms, medium-specific characteristics, and generic features once thought to define only a single medial manifestation. Volumes 3 and 4 of the *Narrating Futures* series consider future narration in film and computer gaming, respectively; Sabine Schenk's *Running and Clicking: Future Narratives in Film* evaluates filmic FNs in the broadest sense of the word, before Sebastian Domsch's *Story-playing: Agency and Narrative in Video Games* turns to the large and ever expanding field of digital gaming as a rich source for future narratives. The ending of the present study entails a nodal situation of sorts itself, then: the consideration of textual FNs with their increasing medial affinity to gaming and interactive digitality finds its logical continuations within the two following volumes, which are both contrastive in their medium-specific approach to future narration and supportive of the claim that medial boundaries are constantly probed by this type of storytelling. Rooted in the printed book, FNs are rapidly branching out into all

types of narrative representation, and as these types are ever more strongly fusing different medial strategies and manifestations, narrating the future is revealed to be a phenomenon that concerns us beyond any one single medium: it concerns us as a radically different approach to storytelling, one which privileges possibility over certitude.

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