Routledge Studies in Management, Organizations, and Society

BUSINESS MEETS THE HUMANITIES

THE HUMAN PERSPECTIVE IN UNIVERSITY–INDUSTRY COLLABORATIONS

Edited by
Martina Skrubbeltrang Mahnke, Mikka Nielsen,
Matilde Lykkebo Petersen, and Lise Tjørring

Business Meets the Humanities

Within the last decades, universities are increasingly expected and measured by their direct engagement in collaborations beyond academia. Exploring the potential that lies in university–business collaborations, the present anthology attends to the dilemmas, dualities, and challenges that follow such collaborations, especially in the academic traditions of the social sciences and humanities.

Each contribution investigates how the human perspective – a perspective that highlights how complex knowledge and a deep understanding of human everyday life – enriches companies' processes, products, services, and ideas. Some chapters focus on collaborations between researchers and business practitioners, others focus on teaching examples involving students in the collaborative work with businesses and organisations, and again others contribute with more theoretical considerations.

By gathering hands-on experiences, this book provides readers with inspirations, reflections on, and insights into university–business collaborations. This book, therefore, is intended for researchers within the humanities and social sciences who want to get a deeper understanding of the practice of such collaborations.

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1 Introduction

Martina Skrubbeltrang Mahnke, Mikka Nielsen, Matilde Lykkebo Petersen, and Lise Tjørring

Taking starting point in the potential that lies in university–industry collaborations, the present book explores the dilemmas, dualities, and challenges that follow such collaborations. We are specifically interested in *the human perspective*, a perspective that highlights and illustrates how complex knowledge and a deep understanding of human everyday life enriches companies' processes, products, services, and ideas. The human perspective aims at offering insights into specific challenges partners of university–industry collaborations may encounter. Some of the cases in this book focus on collaborations between researchers and business practitioners, others focus on teaching examples involving students in the collaborative work with businesses and organisations, and again others contribute with more theoretical considerations. Looking at the contributions in this book, a key concept authors in the different chapters are working towards is the idea of *collaboration on equal terms*. Ideally, collaboration on equal terms takes place where businesses and the social sciences/the humanities meet; where researchers and business practitioners work together on identifying and defining problems; and where the transformation of knowledge and pooling of resources foster innovative and sustainable products, services, and ideas (Cassity, 2006; Vikkelsø, Skaarup, and Sommerlund, 2021).

Within the last decades, universities have developed from being knowledge institutions that indirectly contribute to society's growth and development through the dissemination of research and student education, to institutions being expected and measured by their direct engagement in collaborations beyond academia. In agreement with international organisations, national governments, and university managements, universities have been reformed into institutions that shall act as drivers of the so-called knowledge economy (Cassity and Ang, 2006; Wright, 2019). While some disciplines, such as the medical and technical sciences, have a longer history in collaborations that lead to patents, licences, and spin-offs, other disciplines, such as the humanities and social sciences, are increasingly asked to contribute more directly to society's growth and organisational goals. In addition, educators are asked to teach and deliver competences requested by the labour market and, in order to address this request, a number of

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educational programs have started to install so-called advisory boards with representatives from the labour market that shall help in obtaining deeper insights into current and future workplace demands. This reformation implies a direction of higher integration of usability and applicability in the creation of knowledge, a transition that poses new challenges for how research is done.

The role of universities as drivers of the knowledge economy is contested. Critiques point to the pitfalls of universities embracing market forces privileging instrumental practice and challenging independent research and scholarship (Cassity and Ang, 2006). Moreover, in a time when research output and impact is demonstrated through a market-driven approach, disciplinary hierarchy is reinforced, leaving especially the humanities in a disadvantageous position (Hazelkorn, 2015; Hertzfeld, Link, and Vonortas, 2006). In public debate and within academia, therefore, the role of such disciplines is strongly debated. There is little agreement on what research in these areas should look like. However, concurrently to these more general debates, research practice has started to change. Although still a marginal group, a growing number of humanities and social science scholars are beginning to embrace the idea of business collaborations and are experimenting with these new forms of knowledge production. Output from these projects demonstrates that cutting-edge humanities and social science research – with its focus on producing deep insights in culture, communication, and everyday life – contributes substantially to societal growth and organisational value (Davey et al., 2018).

This book is not a continuation of the debate on whether humanities and social sciences partnerships with industry can create value for both research and business. Rather, the starting point of this book is that university and industry *are* valuable for each other. We intend with this book to explore how this value can be unfolded. We focus on the development of such partnerships, where researchers of the humanities and social sciences are developing new approaches and processes to anticipate challenges of research integrity and definitions of impact. Beyond unpacking this human perspective, with this book we also wish to contribute to build substantial knowledge for humanities and social science scholars and soon-to-be practitioners in research–business collaborations. By gathering hands-on experience, we aim at collecting the know-how humanities and social science scholars need in order to prepare, engage in, and succeed in university–industry collaborations. The overall take-a-ways of this book relate to the themes of relationship building and how to conceptualise a collaboration. There is an overall tendency throughout the cases that collaborations are more often than not person-dependent. This means the knowledge and trust built in a collaboration often resides in one or few persons in the business, and in one scholar (or educator, in regards to teaching collaborations). A big task ahead therefore seems to be related to finding ways to credit and formalise the networking efforts of researchers

and business partners, how to keep them nourished and growing, and not least, how to embed and pass on knowledge gained by scholars engaged in business collaborations. Without necessarily being able to bring concrete solutions to every collaboration project, this book offers insights into the different lessons researchers learn when going into research–business collaborations that bring valuable reflections on how to frame a project, the expectations going into the outputs and when to end a project, and the extended or spin-off projects that can come out of collaborations.

Following this, another concern of this book is to explore and show how to deal with the underlying complexities of university–industry collaborations. On an ideal level, collaboration on equal terms is desirable; in practice, however, collaborations tend to get caught up in organisational and academic structure, hierarchies, and traditions. Who has the final say in creating the problem definition? How can university–industry collaborations be formalised? What are the responsibilities of the individual researcher and the business partner? How can knowledge that benefits both, university as well as industry, be created? These are questions that quickly come up when moving beyond the first excitement of establishing university–industry collaborations. This book aims also at inspiring academics and business practitioners to find answers to these messy, everyday questions. Researchers who want to collaborate need to take part in the bustling business life. In other words, social science and humanities researchers engaging in university–industry collaborations need to fundamentally rethink their role as researchers. Research taking place at the intersection of university and businesses demands new and different qualities. Systematising literature and laying out theoretical frameworks needs to go hand in hand with developing knowledge and perspectives for hands-on solutions. Discussions can not only take place within academia but need to be tested and evaluated in ever-changing organisational environments. While for some, this might be unsatisfactory and troublesome; for us, the editors and contributors of the book, it is a new reality that has equally challenged and enriched our academic practices. Trying to move beyond established frameworks of knowledge production, we see it as a pioneering task to establish new pathways that connect researchers in the social sciences and humanities with businesses in a meaningful way.

This book concludes the research project *HumanImpact* anchored at the University of Copenhagen, funded by the Danish Industry Foundation. The ambitious goal of the project was to make humanities research relevant for Danish companies and, in turn, give researchers insights into the needs of companies by embarking on a number of collaborations between university researchers and businesses. Experiences from these collaborations were not only used to develop knowledge of, and models for, this type of collaboration but also to feed into more general academic discussions. Hence, besides contributions from researchers that have explicitly been working for the HumanImpact project, experiences from other scholars engaging with,

problematising, and developing models for these types of collaborations constitute a further, equally important, part of this book. Throughout the project, it became clear that more and more scholars across humanistic disciplines already experiment with different forms of university–industry collaborations. This book has therefore also become a place to gather some of these brilliant front-runners in order to learn from them.

Last but not least, this book is mainly a Scandinavian contribution, a region from which politicians and civil servants have been influential in envisaging and formulating ideas about the "global knowledge economy" (Wright, 2019). Both Denmark and Sweden have a strong industrial research tradition and the integration of societal and entrepreneurial activities is central to both countries' university policies (Bourelos et al., 2012; Callagher et al., 2015; Gregersen et al., 2009; Matthiessen, et al., 2005). However, especially in the humanistic disciplines, this is not reflected in university structures. Engaging in industry–research collaborations in the social sciences and humanities is still an add-on to the required list of publications. In an academic hiring process, peer-reviewed articles in high-ranked journals are still more valuable than having made a substantial difference in a locally based company. While this is an important discussion following the rise of university–industry collaborations that definitely needs to be on the public agenda and on the agenda of university management, it is not the focus of this book. First and foremost, the purpose of this book is twofold: (1) it shall serve as a source of inspiration for academics, who want to engage in actual collaborations between universities and businesses, and (2) it is intended for researchers within the humanities and social sciences, who want to get insight into and a deeper understanding of the theory and practice of university–industry collaborations. Beyond that, however, we also hope that this book will contribute to raising more fundamental questions such as what these new forms of university–industry collaborations mean for an academic career in the humanities and social sciences.

Overview of contributions in the book

The contributions in this book provide readers with inspirations, reflections on, and insights into collaborations between the humanities and businesses. They do not only provide food for thought and new theoretical concepts and perspectives, but also hands-on takeaways for researchers that aim to venture into university–industry collaborations. The contributions also demonstrate the width of the types of collaborations humanities scholars engage in – this includes various industries and types of projects. The collection of cases and examples throughout the chapters reflect how humanities can create value in a variety of ways, and on different levels of production – whether it is in the process of innovating products, or whether it is in the process of understanding new technological possibilities for businesses. The experiences gathered in this book

reflect a variety of examples of the human perspective on business practices, innovation, and growth.

Part 1 – Rethinking impact: Making collaborations work

The first part of the book zooms in on processes of making collaborations work. It spans from focusing on concrete aspects such as the use of ethnographic examples as bridge-builders and the development of the contract to more theoretical concerns regarding the social organisation and challenges of practice abstracts and the need to bridge critical and administrative perspectives through collaboration.

Mikka Nielsen and Lise Tjørring's chapter "Provoking dialogue: Ethnographic examples as bridge-builders in university–industry collaborations" explores and discusses the power of examples. They argue that ethnographic examples have the potential to become bridge-builders between the researcher and the company, as examples provoke dialogue, interpretation, and engagement. The authors present specific examples from their own work and show how they can be used in order to create new insights and perspectives on business challenges and innovation processes.

Matilde Lykkebo Petersen's chapter "Becoming-with or not at all: The case of a university–business collaboration contract" zooms in on university–industry collaboration contracts. Drawing on her own experience, she offers an innovative way of thinking about such contracts, as she invites the reader to follow her own rather messy way of creating and working with a collaboration contract. This chapter explores the pitfalls and opportunities that lie in the formalisation of university–industry collaboration in contractual terms, and relates to a broader discussion of how to define humanities research impact and to define the current challenges for universities to facilitate humanities scholars in business collaborations.

Håkan Jönsson and Ivanche Dimitrievski take further the discussion of how understandings of impact can be influenced by humanities scholars in their chapter "Performing impact through texts – Unwrapping the social processes behind an institutional term". By exploring the EU-funded research genre of "practice abstracts", they offer an analysis of the social organisation of research impact understood as textually mediated practices. This chapter offers a welcome new take on the discussion of research impact in relation to humanities and social sciences.

Concluding the theme "Rethinking impact: Making collaborations work" is the contribution by David Mathieu, Niklas Alexander Chimirri, Jelena Kleut, and Pille Pruulmann-Vengerfeldt, in which the field of communication and media studies is critically interrogated in relation to stakeholder collaboration. In their chapter "Questioning the business–humanities divide in media studies: A reformulation of the administrative–critical distinction in stakeholder collaboration", the authors relate current topics of datafication and research ethics to the often-disagreeing fields of audience studies and

critical internet studies in suggesting a collaborative approach to bridge differences and create research that improve markets and at the same time embody a critical approach.

Part 2 – Cases and collaborations: Exploring processes

This part of the book zooms out towards taking a meta-perspective exploring the entanglement of academic research with business practice. All chapters centre around a specific case and/or collaboration as illustrative examples of university–industry collaborations.

Mark Vacher's chapter "Making difference – An enquiry into what happens when an architect company acquires humanistic knowledge as a competitive business strategy" explores the contribution of a consultant hired to help an architect team. As defined by the architect firm, the task of the consultant was to provide a "truly different" approach to designing based on anthropology. This endeavour, however, developed into an attempt to navigate confusion and misunderstandings deriving from epistemological differences.

Isabel Froes and Cameline Bolbroe explore the question how open innovation frameworks may create tangible value to human-centred business innovation. The chapter "Human-centred research and open innovation (OI): How to implement and facilitate crosscutting collaborations in the built environment" looks at architectural practices of inviting interdisciplinary groups of working together and explores how humanistic research can push the boundaries of the initial pitch rather than solely focusing on the final technical solution. In conclusion, this chapter presents some guidelines of how to best deploy and facilitate open innovation activities and collaborations.

Morten Krogh Petersen's chapter "From position- to issue-driven collaborations between the humanities and business: The case of 'Eat it, and save it'" lays out what is termed an issue-driven approach to collaborations between the humanities and business. The approach is sketched out and its workings illustrated through a consultancy project, concerning the formulation of recommendation for scaling new and diverse crops and livestock enhancing food concept. In closing, four practical tips are given to the humanities scholar eager to experiment with and develop further the issue-driven approach in and through collaborations between the humanities and business.

Part 3 – Designing the classroom: Fostering university–industry collaborations

University–industry collaborations offer a unique possibility to enhance student engagement and motivation. The third part of this book aims to inspire educators to rethink the classroom and to invite university–industry

collaborations into the classroom, not only as examples but as part of academic teaching and student's project work.

Simon Lex and Kasper Tang Vangkilde's chapter "Designing anthropological impact: How case-based teaching makes a difference" describes how university–industry collaborations may unfold through case-based teaching. They provide a hands-on description of how to organise applied or practice-oriented courses and argue that (1) applied case-based teaching trains the students in critical thinking and constructive application as two sides of the same coin; (2) the students provide value by challenging established perspectives and practices by way of proposing new ways of thinking, doing, and being; and (3) this form of teaching promotes an engaged yet critical kind of citizenship among the students.

Mie Femø Nielsen's chapter "The AIM method: Bringing teaching, research, and business together in authentic industry mega-cases" is a personal narrative based on many years of teaching involving external actors. She invites the reader to think beyond the ordinary by introducing the AIM method, which inspires and pushes students towards new academic endeavours. This chapter explores on a more general level what it means to introduce problem descriptions that are impossible to solve for the individual student and how that can foster fruitful collaborations in the classroom.

Martina Skrubbeltrang Mahnke and Karsten Petersen present in their chapter "Differing expectations in student-industry collaborations: Towards a value-based framework fostering dialogic ground" a new teaching framework for collaborations between student projects and industry.

Acknowledgements

Looking back, we want to express our heartfelt appreciation to everyone who has been working with us over the past years and all who have been related to the project in one way or another. It has been an inspiring and equally challenging ride, with many ups and downs and we ended with more questions than we started with. As it is the case with many projects, we feel we have only touched the surface of a sheer endless number of topics that can be discussed in relation to university–industry collaborations. This book is, hence, equally a conclusion of the HumanImpact project as well as a starting point for further projects that push university–industry collaborations forward. A special thanks goes in this regard to Julie Sommerlund and Maja Horst, who initiated the project, and to Mark Vacher, who took over as a project leader at a later point. In addition, we would like to thank the project team, especially Astrid Pernille Jespersen and Klaus Bruhn Jensen, for their continuous efforts as valuable sparring partners. We further would like to thank Marie Roloff Groth, who has been the organisational heart of the project, without whom many things would not have been possible, and Tanja Alexandra Junge for her

continuous engagement in working with outreach and external partners. We also want to thank all the participants we have met during workshops, seminars, and lectures, and, finally, we want to send a big thank you to the contributors as well as the reviewers of this anthology. Reading and working with your texts, comments, and discussion points has led to many fruitful thoughts and discussions.

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2 Provoking dialogue: Ethnographic examples as bridge-builders in university–industry collaborations

Lise Tjørring and Mikka Nielsen

Introduction

Working with businesses as a humanistic researcher requires thorough deliberations about how knowledge is shared between the two parties. In literature on applied anthropology, it is often suggested that humanistic knowledge is either "translated" in order to be used by businesses or that knowledge from research is presented in the form of clear-cut deliverables that are applicable for the company (Sylow, 2008; Pink, 2005). While it is sometimes possible to provide translations and concrete recommendations based on humanistic research, it is more often the case that a cultural analytical examination of a phenomenon is difficult to translate or transfer into concrete recommendations without simplifying or compromising the findings significantly. So how to ensure shared knowledge? Our suggestion is to initiate engagement in and interpretation of the research material – in other words, to provoke a response and a dialogue – and that *examples* from research have the potential to do so. Through interpretation and common discussion, companies are encouraged to reflect on how to understand and eventually act upon the examples presented to them.

Drawing on cases from collaborations between researchers from the faculty of humanities at the University of Copenhagen and three Danish companies, this chapter demonstrates and discusses the possibility of engaging companies in interpretation processes and thereby producing the best possible conditions for contributing to the production of knowledge. We argue that ethnographic examples can portray ambiguities and complexities that call for a response and that these ethnographic examples, therefore, have the potential to become bridge-builders between a researcher and company and between the abstract and concrete. By bridge-builders, we refer to the responses and the dialogue that examples initiate and how examples then, rather than translating knowledge, produces avenues for shared knowledge.

This chapter is placed within discussions of ethnography in industry. During the last decades, industry has shown a growing interest in

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ethnographic researchers, who have been invited to influence organisations' understandings of their customers, their employees, and the social and cultural world in which they are embedded (Cefkin, 2010). This has raised discussions of the type of impact that ethnography creates in organisations. A common argument is that one of the key contributions from ethnography is the ability to make the hidden common knowledge become visible by defamiliarising it (Marcus and Fischer, 2014, Dalsgaard, 2008; Jarzabkowski et al., 2014). We have a tendency to be blind to ordinary life, but ethnography can make it visible (Dalsgård, 2003). Another key contribution is the ability to convey a sensory experience of other people's perspective (Cunliffe, 2010; Yanow et al., 2012; Dalsgård, 2003). This chapter confirms the aforementioned key contributions of ethnography. Whereas most research in the area of ethnography in industry has focused on the production of ethnography for industry, this chapter contributes with a perspective on the doings of ethnography *in the process* of meeting the industry. The argument is that ethnographic examples in particular have a potential for establishing a bridge between university and industry.

This chapter is centred on ethnographic examples derived from anthropological fieldwork. The use of examples, however, are familiar to most disciplines, and although the types and roles of examples presumably vary with the discipline, it is probable that those examples also have the potential as bridge-builders in similar ways between university and industry. In that way, this chapter is likely to be relevant in a broader context of social science and humanities disciplines.

What is an example?

Example derives from the Latin *eximere*, and the original meaning refers to that of a cut, an incision, or a singling out (Gelley, 1995, p. 2; Lyons, 1989, p. 9). The feature of the example is also closely related to a focus on detail (Lyons, 1989, p. 9; see also Massumi, 2002; Bandak, 2022). In other words, an example is something that has been cut out of a larger part/whole and points to specific details. In this chapter, we focus on ethnographic examples derived from anthropological fieldwork and analysis and perceive examples as important prisms to understand and reconfigure reality and analysis.

Following Bandak and Højer, we perceive examples as being in-between theory and ethnography. Regarding the relationship between theory, ethnography, and exemplification, there has been a tendency in academia to rank theory higher than ethnography and exemplification (Højer and Bandak, 2015, pp. 4–5). We are of the opinion that they inform each other on equal terms rather than theory being more important than ethnography and exemplification. Examples have the potential to advance theory and encourage a particular ethnographic description (Højer and Bandak, 2015, p. 13). Examples are concrete and abstract at the same time. They are

concrete in the sense that they show detailed depiction of real-life situations. They are abstract in the sense that examples can be said to *be* analysis, as the act of cutting out and selecting is an analytic act. Examples, therefore, are also always part of a schism of pointing towards both the particular and the general.

The ethnographic examples we present and discuss in this chapter are of varying length and character. We categorise all of them as being examples on the basis that they are all analytically cut out and point to details. Some of the examples illustrate very mundane everyday practices – practices that we have a tendency to overlook but which, when made visible, have the potential to create responses (Dalsgård, 2003). However, the examples were not necessarily selected for presentation to the companies based on their representativeness, but rather on their ability to convey a certain analytical point, a dilemma, or a paradox from the fieldwork. Sometimes, as argued by Mikkelsen and Madsen (2020), "the extreme case seeks to generate an effect rather than confirm by mere representation" (p. ii). In these collaborations, it is exactly the effect or the reception of the examples that are of importance. Not only what the example points to, but also what this pointing provokes, in terms of new reflections, ideas, initiatives, and discussions.

The use of examples is not limited to the discipline of anthropology. Examples are ubiquitous and used all the time in a variety of ways in and across different disciplines (Elgin, 2011). Although a single example seems insignificant, it is important in the sense that it displays an understanding of a subject (Elgin, 2011). If we can provide an example, we have shown to understand and made it possible for others to understand. An example is not just an instance, but also, as argued by philosopher Catherine Elgin, a *telling* instance (Ibid.).

Anthropological business research: Project development and methods

This chapter is based on an analysis of the empirical material from three research projects developed and conducted in collaboration with three companies: The Fire Fighting Company, the Sustainability Company, and The Bathroom Company.[1] The project description of each research project was developed in collaboration between the researcher and the company with the purpose of creating a project relevant and interesting for the company as well as from a research perspective. The researchers carried out the research projects independently, and company interests have not influenced the results.

The research project for The Fire Fighting Company was an investigation of "future catastrophes and firefighting suits". The company was interested in getting new ideas for developing firefighting suits through an understanding of how firefighting suits were used in practice by firefighters and how leading experts thought about catastrophes now and in the future.

The data collection consisted of participant observation in four 24-hour duties in two fire stations and 11 qualitative semi-structured interviews with leading experts in the field.

The research project for The Sustainability Company was an anthropological investigation of the everyday challenges of leadership across cultures. The Sustainability Company is a multicultural organisation, which experiences challenges with culturally diverse employees having to cooperate on a daily basis. The research project investigated employees' experienced cultural challenges and their various perceptions of leadership and employee–leader relations. The data collection consisted of 21 qualitative semi-structured interviews with employees in The Sustainability Company, two expert interviews, and observation in five company meetings.

The purpose of the research project for The Bathroom Company was to examine how elderly people, with disabilities or frail bodies, experience challenges in the bathroom. When designing specifically for people with disabilities, the company was interested in gaining insight into their customers' everyday challenges, wishes, and ideas about taking a shower and going to the toilet. The fieldwork consisted of three weeks of observations of bathroom usage in people's private houses and at two different nursing homes – with different degrees of participation from a care worker. Qualitative interviews with the people observed were also conducted. Ethnographic field notes and interview excerpts constituted the primary basis for analysis and for the final presentation of the findings.

Three types of ethnographic examples

In our research, we identified that different examples do different things. In the following text, we describe and analyse the doings of three types of ethnographic examples and discuss what happened when the companies were presented to them.

Type 1: The rich and nuanced everyday picture

The following ethnographic example is taken from the research project for The Fire Fighting Company and is developed by an extraction, compression, and re-working of field notes from fieldwork at two firefighting stations. The aim of developing the example was to portray what was identified as a typical everyday problem regarding the use of the firefighting suits: The confusion and lack of knowledge about when to change the firefighting suits in order to avoid harmful particles.

> *The alarm roared throughout the bedrooms in the fire station and a loud voice coming from the speakers announced "CAR FIRE on OAK STREET". The firefighters had 1 minute to make their way from their bedrooms to the vehicles including putting their firefighting suits on. Sliding down the pole*

outside the bedroom took you directly to the garage, where you were met with a smell of soot.

When we reached the burning car, everyone quickly jumped out of the car. The hose was rolled out; the smoke-helmeted firefighters approached the car with the hose. Extinguishing the fire went fast. It was easy routine work. However, it was difficult to find the car battery, which needed to be disconnected. If the battery caught fire it would worsen the situation and smoke from the battery was particularly harmful. The car door was forced open, the firefighters crowded around the car to help. The master firefighter called all, but two back. "I experience this all the time", he said, "too many go into the fire because they want to help, it's in their blood". After the successful operation, the master ordered the two smoke-helmeted firefighters, who had been doing most of the work, to change their fire suits. The master explained: "We don't know exactly when to change the suit, it's an estimation, I ordered the two firefighters most involved to change, but the others were also close. Should they change when they've been 2 metres away? 5 metres? 10? To be honest, we don't know." In the meantime, another firefighter did a smell test on one of his colleagues: "It doesn't smell (pause for thought), I don't think you need to change it".

Company response to and impact of the example

The example was presented to the Fire Fighting Company at a meeting, in which the purpose was to discuss preliminary research findings. The example initiated a lively discussion. The company expressed that they recognised the problem, but had not yet perceived it as a central problem. Up to the present, one of their main strategies for developing firefighting suits had been a clear focus on protecting firefighters' health. Fires release harmful particles, which firefighters are exposed to, causing a significantly higher risk for developing specific types of cancer. So far, The Firefighting Company had approached the problem as a matter of developing particle resistant firefighting suits. They had not thought of approaching the problem as a matter of developing particle-resistant firefighting suits *combined* with adjusting changing practices.

The presented example initiated a discussion on the possibilities for adjusting changing practices. One of the leaders pointed out the complexity of the matter. There were no easy solutions, because they (or science) did not yet have the knowledge to advise on when to change the fire suits. It would require developing and executing an investigation of the amount of harmful particles on the firefighting suits in relation to the distance at which the firefighters had taken part in the firefight. Such an investigation would require the right measurement tools to be developed, qualified people, time, money, etc. The concrete effect of the example was an initiation of ideas to develop such an investigation, and based on such an investigation to

develop precise guidelines for changing the firefighting suits. Thus, the example became a launch pad for further investigations and a possible development of a new side product: a manual on when to change the suit.

What was particularly clear for the researcher taking part in the earlier presented dialogue with the company, was that the example did not need a translation to create impact. The example in itself conveyed a picture of a detailed everyday problem for the fire fighters, which The Fire Fighting Company understood immediately. The example was simple in the sense that it was easily understood. At the same time, it was rich and nuanced in the way that it portrayed a detailed picture of real life.

It can be argued that the anthropological finding was relatively simple and straightforward. Most likely, the Firefighting Company would have understood the point if the researcher had simply delivered the sentence "the firefighters are confused about when to change their suits in order to avoid harmful particles". However, would boiling the finding down and delivering it in one sentence have caused the same lively discussion? It was our impression that the response, engagement, and dialogue was enhanced because the finding was presented through an example. The example created a platform for making the finding significant to the company. It created a possibility for the company to understand what it felt like to be a firefighter and not knowing when to change the suit. It was this feeling of insight, which seemed to give rise to dialogue.

At the time of the termination of the research project, the humanistic finding had not led to any concrete solutions yet. However, what had happened was that the example had set something in motion. We want to draw attention towards this capability of setting in motion, which might be precisely what constitutes the significant contribution of the humanities. This process of motion-setting seems to be rather invisible most of the time, and it might be the reason that the humanities generally suffer lack of recognition compared to other research disciplines. In this research project for the firefighting company, the example seemed to render visible the process of setting in motion.

Although the example did not show the answer, it indicated and condensed a problem, which made possible a new direction of attention. It catalysed new possibilities for focusing on the social world and the actors *using* the equipment rather than focusing on the equipment itself.

Type 2: Accentuation of oppositions

The following example is from the research project for The Sustainability Company. The purpose of the research project was to investigate cultural challenges in the cooperation among employees and leaders with different cultural backgrounds. The following example belongs to another category of examples, which we have termed "accentuation of oppositions". The opposition was identified based on an analysis of all empirical data collected

and deliberately, the example is didactically constructed and stripped of almost all context, when presented to the company. The reason for doing this was to bring forth the opposition in as clear a manner as possible.

The example represented a typical problem in the relationship between leaders and employees with different cultural backgrounds:

Leader: *"If I need some immediate information from an employee, I just contact them directly. It's a lot easier and more efficient than going through other people."*

Employee: *"I was shocked, when the big boss contacted me directly. I must have made a really serious mistake, and I feared I would get fired afterwards."*

The ethnographic example consists here of a juxtaposition of two opposing expectations to leadership within the same organisation. Although the specific attitude towards leadership varied across the interviews, what was common was that attitudes clashed. The intended purpose of the example was to draw attention to a difficult dilemma: for one person an action can be efficient and make things easier, whereas for another person that same action can cause feelings of shock and fear. This may cause delay in the employee's (and other affected employees') work, because the new task is prioritised over other work and time is spent on handling and reflecting upon the experienced feelings. In this particular example, the employee elaborated in the interview that she had come to think less of the leader, as the leader had lost face in her eyes by degrading himself to talk to someone low in the hierarchy.

Company response to and impact of the example

When the example was presented to The Sustainability Company at a follow-up group meeting, it raised a variety of responses and subsequently a heated discussion. Some sided with the leader and thought it was a matter of the employee having to learn to adjust to how things are done in the company. Others sided with the employee and thought that the leader should be better at adjusting his leadership. Furthermore, the employees, to whom the example was presented, started coming up with their own experiences of employee–leader controversies and how they had acted. The example seemed to provoke the company. Coleman (2015) points out that good examples provoke rather than fix thinking. By juxtaposing the opposing opinions, the example rendered visible oppositions that otherwise most likely would have remained hidden or unequally judged due to, for example, hierarchical power structures. The example seemed to provoke a rethinking of the company's idea about how things are done in the way that it placed the opinions next to each other as having equal status.

Although the discussion was heated and displayed disagreements, the example also created room for constructive and nuanced discussions in the

company. The researcher aided the discussions by posing reflective questions, which she found came out of the example: *What is good leadership in your multicultural organisation? Who has the power to define what good leadership is? How can employees and leaders come to understand each other better in your organisation?* During the meeting, the follow-up group members came to agree that the example showed the need for developing employees' and leaders' skills of being sensitive to each other when collaborating, and the researcher was asked to come with suggestions on how this could be done.

Another of the discussions emanating from the example was a discussion about what was the reality, what employees wished to become reality, and how that new reality could be reached. A leader in the follow-up group suggested that the problem of misunderstandings could be fixed by developing a better communication strategy. The leader was of the opinion that If only communication happened through the use of the right words, everyone would understand it the same way.

The researcher's claim to them was that there was no such thing as a perfect communication strategy, because different people would always interpret information differently, as various other researchers have pointed out (Verplanken et al., 1997; Jensen, 2007). The researcher attempted to show the improbability of the ideal: when what was the right action for one person; was the exact opposite for another person; an ideal situation where no one was offended, confused, or misunderstood seemed rather impossible.

The example thus came to accentuate the real world clashing with the ideal. The leader was aiming for an ideal situation, where cultural differences would evaporate and things would run smoothly if only the right communication strategy was found. To begin with, the leader was focused merely on what ought to be in a certain way and how to get there. However, the example seemed to direct the attention towards a recognition and understanding of the real world and the actual collaboration problems that happened on a daily basis. Moving away from the idea of the real clashing with the ideal, the example opened up for discussing future possibilities embedded in real circumstances. Whereas the future possibilities were first perceived as a matter of developing a perfect communication strategy, it was later nuanced as a quest to recognise context and culture in future communications. It spurred leadership discussions about what managers at what level (regional as well as hierarchical) to deliver which type of messages to whom. The example became evidence for what was not yet existing (Holbraad and Petersen, 2009, p. 384; Strathern, 1999, p. 163), and the follow-up group started to develop initiatives to improve cross-cultural collaboration based on a combination of the real and the ideal.

Some of the initiatives developed were an integration of a workshop on developing cultural skills in the annual mandatory training course for leaders, and a buddy system, in which all new employees are assigned a buddy with another cultural background to guide them in collaborating across cultural backgrounds. Besides, the company also started working on adjusting

their visions of a common work culture with the aim of integrating more respect for culturally different ways of working. Besides bringing forth discussions and concrete initiatives in the company, the example also became bridge-building. By engaging in the discussions in the follow-up group, the researcher got an insight into the complex organisational and structural challenges of implementing new strategies, which spurred further reflections on the role of humanistic knowledge in implementation processes.

It can be questioned whether the example presented earlier does in fact represent an ethnographic example. Is it too empty of context and does that make it too "thin" to be valuable? We argue that this is a risk when constructing this type of example, and we encourage careful consideration between the need for showing context and the need for a clear and short illustration of a point. At the same time, we point out that although the example itself lacked context, it is carefully extracted from a context rich data set. We also point out that it was our experience that the reason the example created impact was precisely because it was so clear-cut in showing the opposition.

Type 3: Illustrating needs and values

The following example is one of many field notes excerpts presented to The Bathroom Company. The purpose of highlighting this passage was to illustrate the interaction between a care worker and an old man in need of assistance while performing a very mundane everyday practice in the bathroom – and as part of this to discuss the use of (or lack of use of) welfare technologies. But the purpose was also to initiate a conversation about values, bodily sensations, and ideas about starting off the day in a good way. Prior to presenting the example, the researcher outlined three different analytical approaches to studying the body and thinking about bodily needs: the functional body, the social body, and the sensorial body. When analysing experiences of living with a physical disability or a frail body, the first approach can direct our focus to the way bodily challenges are compensated for or treated. The second approach makes us notice social aspects of living with certain bodies, as for example the social taboos connected to living with a disabled body. And finally the third approach helps us attend to the sensorial aspects of being a body in the world. The analytical approaches were presented based on the assumption that a variety of perspectives could foster a nuanced dialogue. Therefore, with these three approaches to studying the body, the researcher presented the example:

> *A care worker and I are visiting a married couple in their eighties. The man is lying in bed and is slowly recovering after a broken hip.*
>
> *The man uses a walker to get from bed to the bathroom. He leaves the walker outside the bathroom door and turns the handles of the toilet lifter down, while*

> *leaning against the wall for support. The care worker helps him get his pants and diaper off. With the trousers down his ankles, the man turns around by leaning against both the wall and the nurse and sits at the toilet. We close the door to offer the man privacy. After some time he knocks on the door and the care worker opens. The man uses the door handles to get up. He reaches for the walker and the care worker puts on a diaper and pulls up his pants.*
>
> *The man turns towards the sink and leans on it with his hands. The care worker finds a stool for him to sit at. She helps him off his shirt and he puts a stopper in the sink and fills it up with water. He covers his lap with a towel and washes his face and armpits with a cloth. He takes his time. Adjust the temperature of the water. Looks in the mirror and carefully runs his hand through his hair. He reaches for the mug with a toothbrush, brushes his teeth and spits in the sink.*

The example demonstrates the many different practices in a morning routine. It shows how the man primarily needs assistance for a few processes and how he manages to perform most of the intimate hygiene and morning toilette by himself while the care worker is waiting outside the bathroom. But the excerpt also sheds light on the man's enjoyment of dwelling; taking time to prepare for the day; and the bodily sensation of washing, rubbing, and cleaning himself.

Company response to, and impact of, the example

When presented to the company, the field note initially sparked an interesting discussion about the potential for reducing the man's need for assistance and thereby time spent by a care worker. Could a new design of either the sink, the toilet, the stool, or other products make the morning routine easier and the man independent of help? Within the past decades, welfare technologies are used in private homes and in health care institutions to a still greater extent and beside the ambition of reducing the need for care services, the possibility of enhancing self-reliance and independence of citizens is a strong argument (Hansen and Grosen, 2019). Self-reliance has become an imperative in care work, which naturally affects how manufacturers of bathroom solutions design. In that perspective, the example tapped into current discussions of technology, hope, and self-reliance in care work and became a launch pad for grounding these discussions in everyday practice.

Thinking about mitigating the man's difficulties by designing new assistive aids and thereby enabling him to manage most practices at the toilet by himself met the needs of what could be analysed as the functional body and the social body. Physical challenges were compensated for and intimate situations were performed in private. But what about the sensorial body? At the meeting, the researcher returned to the three analytical approaches to studying the body and challenged the employees at the company to think of the example from a perspective that focused on the sensorial aspects of doing a

morning routine. The researcher emphasised the man's careful facewash and hair styling, but somehow the perspective remained at the periphery while the two other perspectives were at the centre. The dialogue kept circulating around how to avoid practical obstacles and how to ensure self-reliance, as was already persistent ideas connected to designing assistive technologies.

However, a year after the presentation, the power of the example and the discussions about it had continued, it turned out. At a follow-up meeting that evaluated the collaboration and the outcomes of it, the designer described how the example had directed focus from requirement specifications to everyday challenges and more subtle prioritisations when using the products. The example offered her insight into details she had never had access to before but just as important; the example and the following dialogue prompted her to reflect on aspects that were rarely foregrounded when designing. Pondering about the many elements of the man's morning routine, the example had spawned the development of the concept "me-time" as an essential part of time spent in the bathroom. Me-time, in this regard, denoted the dignity and satisfaction connected to doing a morning routine, caring for the body, and slowly preparing for the day in your own tempo. The example, then, initiated reflections about not only the functionality of the company's products but also what they enabled the user to do and the values inherent in them. The company interpreted the example and transformed the learnings from it into a new key concept for design, connected to the self-reliance imperative but centred more on the satisfaction and enjoyment of self-care than on independence.

The sensorial aspects of doing a morning routine were not mentioned explicitly by the designer, but the detailed description from the example and the exercise of trying to understand not only the man's challenges but also what he took pleasure in had contributed with new perspectives. Encouraging the employees to think of a morning routine from different analytical perspectives may have directed their thoughts in new ways but it was the *example* of a man's morning routine that stuck with them throughout the year. The example was not necessarily representative or stood out in any way. But it portrayed the ordinary, the general experience of a morning toilette in a specific man's everyday life. Bandak and Højer note that examples are always "in danger of being shallow 'exemplars for everything' or reduced to 'mere examples', standing for nothing other than themselves" (8). Yet, as this example shows, examples may in fact, in a productive manner, become more than just an example illustrating one man's specific needs but actually an example that points to general values recognised and appreciated by many.

Discussion

Earlier, we presented, analysed, and discussed the doings of three different types of ethnographic examples. In this section, we will discuss two topics,

which have arisen from analysing the role of ethnographic examples in humanities–business relations: the unruliness of examples and the ethical implications thereof and the example as part of a dialogic process or an end in itself.

The unruly doings of examples and the ethical implications thereof

Many scholars point out that the example *does* something. It is, however, not necessarily predictable *what it does*. In "the power of example", Bandak and Højer explore the persuasive and evocative power of examples in social and academic life. They argue that effective examples manage to theorise or assemble what lies beyond them by elucidating connections, evoking trains of thoughts and persuading audiences (Højer and Bandak, 2015, p. 7). The good example points to a constant movement, in both theory and the world, by suggesting, proposing, and revealing new generalised "wholes" (ibid, p. 8). The movement, which examples create, may be rather unpredictable. When the example is presented, it is set loose in the sense that we cannot always predict what is made out of them. This is the unruliness of examples (Gelley, 1995; Humphrey, 1997). The unruliness means that the example often contains a potential for being understood and used in different ways than expected (Gelley, 1995; Humphrey, 1997). The meaning of a given example or research result, for example, cannot be controlled, as "they will always be interpreted according to personal or professional agendas" (Dalsgaard 2008, p. 146). This unruliness can be seen as a tension between intention, interpretation, and use of the example. Rather than being a negative thing, such tension creates movement and impact (although often in unforeseen ways), and makes the example alive.

We have presented and discussed how the companies have responded to our three ethnographic examples. The examples seem to become woven into the context of the particular business and find their ways through internal rationales, strategies, and work culture. The researcher loses sight of it, and the end of a research project might be the beginning of the company's work process. This process is positive in the sense that the example is alive and makes an impact, but it also illustrates the unpredictability of collaborations in general and of working with examples in particular. In the case of The Bathroom Company, we saw how discussions about the example evolved from a focus on technology to a focus on dignity related to having and taking so-called "me-time". The concept was coined by the company and not by the researcher, but it resonated with the researchers' experience from the fieldwork.

However, what if the unruliness of the example, in the hands of the company, develops into an argument or a concept that, to the researcher, seems mistaken or distorted? In an evaluation session with one of the businesses, it turned out that a single particular detail from one of the presented examples was highlighted by the company for sales purposes as

a proof of why the company's product was better than its competitors'. To the researcher, the detail was part of a bigger illustration and therefore dependent on the context in which it appeared, but since the detail fit nicely into the company's existing sales strategy, it served as a "proof" that the company was right in its argument. The case sheds light on not only the possibility of interpreting the example in different ways but also the fact that an example often consists of several details that, when interpreted in isolation, may point to other directions than when interpreted in connection to other parts (analytically chosen by the researcher). This illustrates the potential instability of examples – the possibility of "becoming something else" (Højer and Bandak, 2015, p. 8) when fragments and details are overexposed or connected to other contexts. To acknowledge this instability and trust the future path of the example is therefore part of the challenge but also the potential of working with examples. The unruliness of examples is good in the sense that it sets the examples in motion and into use. However, in the very same process, ethical implications may arise if the researcher's intention with the example lies too far away from the company's use of the example. Rather than letting potential ethical implications abstain researchers from collaborating with industry, we suggest raising one's awareness towards potential ethical implications, discussing them with the company and safeguarding against them in a collaboration contract.

The example as part of a dialogic process or an end in itself?

In what phase(s) of the collaboration process with business partners does the use of examples fit in? Should the researcher's job end with the presentation of the ethnographic example as a means to convey understanding of the scientific result or is the example better placed in the middle of a collaboration process as a focal point for dialogue with the business partner? We know that examples tend to initiate new discussions and questions. And more often than not, this process of reflecting upon and relating to emerging questions and queries together is when new ideas arise. So, on the one hand, ending the collaboration after presenting the example(s) does not harness the potential of pursuing new directions emanating from the example. On the other hand, as shown in this chapter, the open-endedness of the examples and the companies own way of relating to and interpreting the example is exactly what makes it so powerful, productive, and usable.

In the case of The Fire Fighting Company, the example both served as an end in itself and as a focal point for discussion. The example conveyed the result of an anthropological analysis: The identification of a confusion in practice of when to change the fire fighting suits. But the example also instigated an immediate dialogue between the researcher and the business partner centred on the question: What can the business partner do from here with this problem identified?

In the case of the Bathroom Company, the collaboration ended with a presentation and following discussion of examples selected from the fieldwork. But due to, among other things, the powerfulness of the examples, both parties were interested in pursuing questions, dilemmas, and potentials that evolved from the discussion. Continuing the collaboration, however, would require additional funding, and as is often the case in such a situation: time passed and urgent tasks overshadowed good intentions of following up on a prolonged collaboration.

In the case of The Sustainability Company, the examples mostly became integrated in a dialogic process with a follow-up group consisting of four employees in the company and the researcher. The examples and the questions they raised became intertwined in an interesting ongoing dialogue. However, it was also a dialogue that pointed out an uncertainty about the researcher's and the company's roles and responsibilities. The researcher did not feel that she could or should give a qualified specific answer to the questions raised, as the answer, according to her, would need to be built on internal knowledge about the organisation. However, the company pushed for specific recommendations, and the researcher is unsure about whether she should have attempted to pose specific suggestions anyway. At the same time, the ethnographic examples did something on their own without the researcher's need to pose further concrete solutions. The examples conveyed, in a rich but easily understood way, important challenges within the organisation. But these challenges raised new questions and the need for new initiatives.

As described earlier, our ethnographic examples were used both as part of a dialogic process between the researcher and the company and as an end product delivered to the company. Although used as an end product, the example never became an end in itself, as it lived on and was used in new (and sometimes unpredictable) ways in the company. The process, in which the example became embedded, also raised questions of roles and responsibilities: Who has the responsibility for a good research product? When does the researcher's work end when collaborating with a company? Humanities knowledge is rarely (and perhaps never) an end in itself, but points to the need for new knowledge and initiatives. This is less problematic, when research is carried out within the university, as research projects tend to officially end with the termination of the funding period. However, when collaborating with companies, the termination of a research project is simultaneously met with the question of "did we meet each other's expectations?" Based on the experience of conducting the aforementioned research projects, we suggest that the researcher carefully and strategically considers and plans when in the process to use the ethnographic example and what one's role and responsibility is accordingly. With advantage, the distribution of roles and responsibilities can be discussed with the company. Although companies are sometimes out for more, ethnographic examples do have the potential to do something in

themselves, and perhaps our responsibility as researchers is to insist on this potential rather than giving into a company's wish for more.

Conclusion

We identified three different types of examples in our research projects: an example showing a rich and nuanced everyday picture, an example that accentuates opposite positions, and an example illustrating needs and values. To these three examples, we identified three different responses: the example leading to a launch pad for new ideas and product development, the example leading to constructive discussions between the researcher and the company as well as within the company, and the example leading to the development of a new concept for design. The examples and responses are of course not an exhaustive list, and we want to emphasise that we did not find any direct relation between types of examples and types of responses in our material.

As the responses to the examples witness, examples function as "in-betweens". They are not just in-between theory and ethnography; they also have the capability of being in-between academia and industry. Ethnographic examples are easily understood by companies, although they reveal the complexity and ambiguity of human life, and the need for translation from academia to practice, hence, is not needed. The example offers a common language and reference point, making it possible for the researcher and the company to speak the same language. In that sense, examples function as bridge-builders. What is connected by the example, the bridge, is of course not two separate worlds, but yet two different actors often making use of different ways of examining, understanding, and talking about the world. The ethnographic example, then, serves as a starting point for discussing that same world in a common language.

We imagine the existence of many different types of examples across disciplines additional to the types of examples, which we have dealt with in this chapter. We hope that the presented examples will inspire researchers in our own discipline as well as other social science and humanities disciplines to use examples more, both for analysis and for improving the depth of knowledge conveyed and exchanged in university–industry collaborations. Working with other types of examples in other disciplines, and entering the dialogic process that often follows the examples (and the unruliness of them), might lead to similar processes of impact and collaboration with industry as we have presented here.

Note

1 The names of the companies are invented to ensure their anonymity.

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3 Becoming-with or not at all: The case of a university–business collaboration contract

Matilde Lykkebo Petersen

Introduction

You have a great idea for a research project, and you have initiated a new collaboration with an exciting business partner. You leave work with a smile on your face, and imagine all the relevant research outputs that are going to come out of this collaborative project. Everyone involved is on board, everyone says "yes", nothing can stop you or get in your way. Except, as it turns out, the creation and signing of a specific piece of paper: a formalised research–business collaboration contract.

This article takes a close look at the institutional contract between a business partner and humanities-based research project at a Danish university. By the example of an empirical case, where the creation and signing of a collaboration contract was creating a whole lot of trouble, this paper sets out to map the challenges specific for humanities-based research–industry collaborations, when forming a collaborative agreement in legal terms. This specific case serves to shed light on the differences in perceptions of the committed parties in regards to interests, hopes for outcomes, and fear of threats. The case also serves to raise the question, whether universities are ready for humanities-based research–business collaborations, when it comes to facilitating the needs and interests of this type of project.

The aim of this chapter is therefore to investigate how a case of a standard collaboration agreement between university and industry creates challenges specifically for humanities-based research–industry collaborations. Further, this chapter intends to point to potential solutions to these challenges.

The paper takes point of departure in a single situated case of research collaboration and its challenges with forming a contract. Through conversations with colleagues about their experiences with forming similar contracts, I believe the case touches upon real issues in the field of humanities, not only in this particular department and university. The intention is not to sell humanities researchers short by exposing our lack of experience with forming such contracts, but to give an honest account of dominant challenges encountered, and to trace back the underlying premises for standardised contracts and their embeddedness in particular

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university and societal structures. By sharing this experience, the paper intends to provide humanities scholars with knowledge of how to approach contracts in future collaborations, and point to general challenges that need to be addressed at the university level.

To investigate this, I take on an approach to understand collaborations inspired by Donna Haraway's thinking, where I particularly wish to put the concept of "string figures" to use (Haraway, 1994, 2016). Playing games of string figures is that ancient social game between (at least) two players, who hold a loop of string between their outstretched fingers, and take turns in developing a pattern or a figure with the string placing it between their fingers, by lifting and shifting the string loop between them. The game requires a deep level of collaboration, skill, and commitment, and thus poses an apt analogy for analysing the process of collaboration between research and business as games of playing string figures.

Playing games of string figures also serves as an analytical concept to trace inherent meanings and look for patterns of meaningful exchange and the actions leading to it. Consequential, it could also indicate when the opposite is the case, and help to understand such uneven or problematic patterns.

Furthermore, this chapter engages with an understanding of contracts based on Durkheim's sociological approach to contractual society, as well as engaging existing literature on humanities-based research–industry collaborations in an attempt to understand the context of which the challenges for humanities-based collaborations reside.

Context: Research impact

It has not gone unnoticed to any humanities scholar in the past few decades that research's ability to create, and not least *measure*, societal impact has become a political priority, tendentious to a political demand of universities. According to Cassity and Ang, academic research is expected to contribute to the "national innovation system" that helps drive economic and social development (Cassity and Ang, 2006). This can be seen as what Nowotny et al. has described as the "Mode 2" of knowledge production (Nowotny, Scott, and Gibbons, 2003), which means a focus on outlet and impact and a closer collaboration with practitioners, thus being different from traditional "pure" science with its emphasis on disciplinary specialisation and individual autonomy (Mode 1), which is becoming less and less dominant in academia (Cassity and Ang, 2006, p. 4). In a Danish context, the political agenda has since 2000 focused on how to improve research and technology transfer from university to industry, in an attempt to create societal value and innovation growth (Norn, Jensen, and Laursen, 2013; Vedel and Irwin, 2017). The notorious mantra in Danish beginning-of-century research politics "from research to invoice" marked a political focus on direct value-creation and innovation from research to business. Initially

this focus was mainly on the so-called "hard sciences" (e.g., technology, medicine, natural sciences), a focus that was directly manifested in new "technology transfer offices" – specific institutional units for support and development that would help university–industry collaborations thrive and create the wished-for impact (Norn, Jensen, and Laursen, 2013). The *tech trans offices* were also responsible for writing up the legal agreements and for measuring the impact of the university's industry collaborations quantitatively through patents and agreements (ibid.).

On this background, several accounts outline that there is a lack of knowledge about the humanities-based research–industry collaborations and their impact (Siemens and INKE Research Group, 2019; Norn, Jensen, and Laursen, 2013; Kongsted et al., 2017). A recent report on the Danish universities' industry collaborations states that in Denmark the humanities and social sciences are as likely to engage with stakeholders beyond academia as the STEM[1] disciplines, but:

> Because of the focus on university patenting, spin-off creation, and large formal research agreements, university-industry ties are often associated more with the STEM disciplines, where these types of activities are more common, than with SSH [Social Sciences and Humanities].
>
> (Kongsted et al., 2017, p. 8)

The problem lies in the way that impact is measured – namely in patents and contracts – which has proved to be a misrepresentation for the actual research collaboration and impact both in "hard" and "soft" sciences, as, according to Norn et al., measuring patents does not take into account the more diffuse and subtle processes of change that happens in university–industry collaborations (Norn, Jensen, and Laursen, 2013, p. 5). When it comes to the humanities, the difficulty in measuring impact presents as the following:

> The humanities typically produce 'explanatory models and rich and nuanced interpretations of complex questions'. As a consequence, their economic, social, and cultural benefits are difficult to measure, and their contexts of application are diffuse and inferential.
>
> (Cassity and Ang, 2006, p. 5)

To sum up the earlier discussion, the main discourse around university–industry collaborations revolves around the idea that academic research has to create impact and "societal growth", and that this impact could be measured in universities selling patents and the number of signed industry–research agreements – a monetised and quantitative way of understanding impact. A counter discourse seems to go against this perception

of impact, but is, on the other hand, not able to characterise what research impact is – other than it is "hard to measure".

The earlier discussion is relevant when wishing to understand the context in which humanities-based research collaboration contracts are established and with which contextual reference points. For the specific case at hand, it is the local tech trans office that drew up the contract, and as the analysis will show, the legacy of the "patent-impact-discourse" is visible and putting its mark on the contract template.

Perspectives on contracts and collaborations

In general, two overall types of university–industry collaboration agreements exist: co-funded research and commissioned research. The co-funded research is when both the university and the collaborator contribute resources to the project, and the rights to results accrue to both parties. The company can obtain a license to be able to use the results commercially. In the commissioned research, a company buys specific services of the university, for example, to solve a specific research assignment, and covers the costs of the research. Here, the company has the rights to the results; however, the university has freedom of research in the performance of the assignment, and is allowed to publish the results of the research. Other types of more narrow agreements are non-disclosure, material transfer, and licensing agreements.

A contract can be defined as: "a formally documented arrangement for governing a voluntary exchange relationship in the shadow of the law" (Suchman, 2003, p. 94). Taking a sociological approach, forming and engaging in a contractual relation can be seen as a symbolic gesture or ceremony (Suchman, 2003, p. 92). Writing up a shared contractual agreement is thus a sociological process with certain technical and symbolic elements, and the contract can be understood as a social artefact in this process (Suchman, 2003).

Others have emphasised the contract as a necessary precaution for collaborative relationships:

> After this honeymoon phase is over, partners have to deal with differences and conflicts, learn to accept each others' imperfections, and maintain commitment to the relationship and its outcomes.
>
> (Sofoulis, 2011, p. 48)

Sofoulis uses marriage as a metaphor to describe university–industry collaborations, where trust in a marriage – as in a collaboration – is crucial, but if the marriage goes south, you are better off with a pre-nup, a marriage agreement – and for collaborations, a contract (Sofoulis, 2011). One important reason for drawing up agreements is to specify the parties' rights to the produced intellectual property, the output, and to specify the

precautions in terms of secrecy. Sofoulis mentions issues regarding how data is handled and owned, who are first- and co-authors, protocols for permissions to release data, publish results or share data with other researchers, and commercialisation of results as the most salient issues (Sofoulis, 2011, p. 53).

As Evans writes, academia and industry have different modes of sharing and relating to secrecy, in particular regarding "hard sciences" research that come up with new discoveries and innovations, which in industry is an intrinsic part of business competition and therefore secrecy is key (Evans, 2010). In academia, secrecy regarding research results also exists, but there is a different culture of sharing and collaborating between researchers to gain new results and build on top of each other's findings (ibid.). Thus, in collaborations between industry and academia, specifying intellectual property, secrecy clauses, and modes of sharing output are highly relevant, but also potentially challenging. And, in the context of humanities, the definition of the research output and the intellectual property might be even more challenging to map out beforehand, as humanities do not set out to "discover", for example, new bacteria or how to clone genes, but rather produces new perspectives on complex social phenomena, new ideas for change, or simply shed light on an underexplored context. This means that the problem with measuring impact also connects with issues of defining outputs and intellectual property. In a contract, rights to the produced material and the rights to publish it, would align with the academic culture of sharing (and freedom of research, not least), but this unlimited sharing might misalign with the business partner's desire for secrecy as part of a competitive market. Another central aspect to contracts is defining the financial setup and obligations of the parties. This can be less evident in humanities-based collaborations where joint resources, for example, could be time and access (as in the present case). If no direct financial resources are added to the collaboration, it is a challenge to address the indirect resources and the expected output – thus value-creation – in the collaboration.

Solidarities and string figures

Durkheim's theoretical framework of contractual society (Durkheim, 2014) offers a sociological understanding of the embeddedness of contractual relations with societal social and cultural norms (Andersen, 2011, p. 33). As industrialised society is based on contracts, Durkheim states that "the social" is a form of *sui generis* of society (Follert, 2020), and further that the contractual relation can be characterised as supported either by contractual solidarity or organic solidarity. The contractual solidarity is what binds the contractual parties to the contractual frame itself; and the organic solidarity refers to the social contract, society's expectations to the individuals forming a contract, and binds individuals (on a social or business basis) to each other through specific cultural and social norms (Andersen, 2011, p. 35).

In relation to university–industry collaboration, the contract involves two explicit parties – the university and the industry – who are agreeing to a contractual relationship with a specific legal framework to insure their division of labour, rights, and claims towards one another. Hence, they are committed to each other in contractual solidarity, but, moreover, they are also committed in organic solidarity. The organic solidarity – which broadly refers to the shared societal consciousness and moral, and in this, social norms and standards – ties the parties together in a moral obligation towards each other and a set of shared standards or norms towards their relation. I apply this framework of the contract to the specific case at hand of a collaboration contract, to analyse its relational aspects as well as embeddedness (or lack hereof) to contextual norms.

As mentioned in the introduction, I approach university–industry collaborations through the analytical lens of Haraway, specifically her thinking concepts of "string figures" and "becoming-with". Haraway's writings deal with a world in ecological catastrophe, overpopulation, and global inequalities. Her thinking concepts are developed to deal with difficulties in coming together and finding shared ways to move forward without succumbing to "game over" attitudes to the problems we face in this world today (Haraway, 2016, p. 3). "Staying with the trouble" (2016) is a way to deal with, for example, climate crisis, where none can do it alone, but together in collaborations and with attention to others' experiences and expertise, there is hope. I like to downscale this thinking figure to the much more mundane case of a collaboration contract, however small in comparison, where the sense of despair can be real enough, and the prospect of reaching collective solutions would seem like the more sensible attitude.

What is interesting about the current case of a business–research collaboration – in relation to Haraway's approach – is how this case invokes perspectives on collaboration (becoming-with) between research and industry, two strong representatives for structural global forces of potential change. We can argue that research and business should endeavour much more into collaborations and becoming-with each other, in producing multi-situational solutions to the world's troubles and challenges.

Applying the thinking concept of "string figures" to analyse the process of establishing the collaboration contract enables me to focus on the collaboration as a becoming-with, exactly as a troublesome co-existence, and to see where the collaboration works and where it goes wrong. Following these instances of trouble helps shed light on the epistemological, institutional, and practical challenges that humanities-based researchers can meet when establishing business collaborations. The idea is to track and trace patterns and knots in the identified string figure(s) in the case (Haraway, 2016, p. 3). Haraway's original use of the string figure or *cat's cradle* analogy is a mixed analytical apparatus of different critical perspectives, knowledges, tools, etc., to trace out patterns and knots in relation to specific issues (Haraway, 1994: 69). Following this trail of thought that we can learn to

play cat's cradle in sustainable, livable, and knowledgeable ways, instead of antagonistic, militant logics, I intend to put this thinking figure to use in something as simple and specific as a collaboration contract.

The case

As an example, I use an empirical case from a business collaboration I undertook with a Danish company in the health sector. The company is a private clinic that competes on the European market. When I worked on this case, I was employed at a Danish University and was part of a research project that focused on exploring and developing humanities–business collaborations. I have chosen to anonymise all actors in this case, as it is not relevant who the specific actors are, but rather their role in relation to each other, and the knowledge and perceptions they each bring with them into the collaboration.

In this case, we had a standard collaboration contract that was slightly customised to our specific type of projects as a humanities-based research group, but it still brought out some blind angles. The issues at play were not difficulties in collaboration or resistance to the project – everybody was on board. Rather, the issue at play is how the formulation of a legally binding contract led to a range of new issues and raised contradicting positions and perceptions of what commitment to a research collaboration meant.

Thus, the object of my analysis is the process of forming, revising, changing, and finally signing the collaboration contract, based on my retelling of that process in three acts. I see the overall process of collaboration between myself and the business as a game of string figures where each of the three acts represent a step in forming that string figure together – three standstills that show how the collaboration contract inflicts a certain pace and atmosphere to the project. I use the different steps to identify the perceptions and culture that consolidate humanities-based research–industry collaborations.

Act 1: Defining the setup

First, setting up a game of string figures requires the coming together of two willing players. The business partner that I ended up forming a collaboration with was someone with whom I shared interest in a particular research field, and therefore, we had a common ground in the mutual recognition that the topic and focus of the collaboration project was relevant to both of us. A game of string figures needs two sets of hands creating the pattern of the string loop together, by taking turns in giving and receiving the string between their outstretched fingers. To do it successfully, it requires an equal or symmetrical engagement and commitment from both parties. From the beginning of this case, both the business partner and I were highly committed to the project and the intention to produce knowledge together on the chosen subject. I provided my

humanities approach and my research time; they provided their expert practitioner knowledge and access to their field.

Further, a successful game of string figures with an ongoing and elaborate development of a pattern that is created out of the two players' joint creative skills, also requires the players' ability to understand the premise of the game and the mutual understanding of each other's different intentions, wishes, strengths, and weaknesses in terms of co-creating an elaborate pattern. In the case of the research–business collaboration, the contract enters as a formal mutual recognition of those intentions and efforts.

As previously mentioned, the contract was drawn up by the local tech trans office, and was a slightly customized, standard co-funded research collaboration contract for a humanities-based small-scale collaboration with no financial obligations. For me as a junior researcher, it was the first time I read such a contract, and I was slightly surprised to read the long list of 16 subtitles that indicated topics of concern that I had not imagined relevant to the project.

I filled out the blanks that were the background and purpose for the research collaboration, and read the remaining template sections, whose legal language and framework seemed foreign and distant to my understanding of the collaboration we were embarking on. For example, this section:

> 12. Violation: If a Party significantly breaches its obligations under the Agreement, the other Party may terminate the Agreement. Regardless of whether the Agreement is terminated as a result of the Company's significant breach, the Department is entitled to compensation in accordance with the general rules of Danish law. If the Agreement is terminated as a result of the Department's significant breach, the Department shall, as the only consequence of the breach, repay the grants, (i) which have not already been used, and (ii) which the Department has received from the Company in accordance with the budget to finance the tasks which was the responsibility of the Department, cf. resp. points 3 and 4. Reference is also made to the limitation of liability in point 8. (Excerpt from the contract template, my translation from Danish)

As none of the parties directly added financial resources to the collaboration, the earlier section read as a bit overwhelming and seemingly irrelevant. However, I figured it was just a necessary precaution that I did not have the professional expertise to assess, which is why the legal department, and not I, drew up the contract.

At this point, the contract resembles what Suchman identifies as "prophylactic" contracts, which is the understanding from both parties that the document will become relevant only if their ongoing, largely noncontractual relationship devolves into an "end game" (Suchman, 2003, p. 107). As such, the language of the contract is not making up the rules of the collaboration,

but the rules, should the parties need a third party to solve a dispute. As such, the contract may go "unused" for the entire project, without this deeming the contract useless. What this also suggests is the notion of organic solidarity that seems to tie the parties together more consistently than the contractual agreement. We are forming our collaborative project through conversations and relation-building and shared interests, as well as a moral expectation of "good behaviour" from the other party.

Act 2: Getting to know each other through contractual paragraphs

When I sent the contract to the company to sign, they read it carefully, and came back with a request to include a phrase that would grant the business partner co-authorship of the project's publications.

As a private clinic, the company's business is a health-related service, and they are on the market to compete. In our joint project, the purpose was to create knowledge about the patient experience in relation to a new digital service, and the CEO of the company was worried that my research would end up as a critical review of their endeavours. I explained that, as a humanist researcher, I was not interested in giving any kind of review or evaluating them or their products; rather, I was interested in understanding a context and the individual experience of patients. My contact person in the company – the clinical director – appreciated my point of view, but nevertheless preferred some kind of understanding that the company could be added as co-author, meaning they would be involved in whatever writings came out of the project. Seeing that this could sound like they wanted to add a clause that potentially restrained my intellectual freedom and violate my rights to the data I would collect, I needed to discuss this matter back at the department. I discussed the issue with the project PI, and we ended up with a rephrasing, saying that the company could be co-authors on publications that directly would deal with their products and services. Hence, we thought, a delicate compromise.

Our joint string figure is developing in complexity, and we have experienced each other take some turns going back and forth between us. Metaphorically, a difficult knot occurs in the string figure after I introduce the contract. A knot that brings a standstill in the game, and requires me to pause. We continue the game, but the knot is still there, reminding me of the uncomfortable compromise. The contract makes visible potential future problems, but in the present moment in our collaboration, dealing with the contract also creates problems in the shape of awkward and slightly unpleasant conversations about subjects that might never be relevant.

Here, I want to draw on Bacchi's critical "What is the problem represented to be" – approach, which in its core seeks to understand underlying premises and assumption about a given problem through policies' suggestions for solutions and actions (Bacchi, 2012). The contract's purpose

to define solutions or what we could call "legal management framework" for "yet-to-be-conflicts" in collaborations is thus *defining a specific horizon for understanding potential problems/conflicts*. This means, more than being prophylactic, the contract can also be understood as a specific delineation of collaboration-related conflicts – where the point is that this is *one way* of understanding conflicts, namely from a legal framework and its scope. Following Bacchi, the represented problem further constitutes real consequences, and affects the actual context and people involved. In this case, the writing and definition of a collaboration contract affects the involved parties by making them reflect on potential conflict areas, which from a prophylactic, legal point of view is positive as it might prepare them and clear out potential misunderstandings. However, these defined – but just potential – conflicts can also be seen as disruptive of a collaborative flow of building trust and a strong relation.

Because of the contract mentioning publication rights, it became visible that the two parties had different perceptions of potential outcomes and threats related to sharing/compromising results and research integrity. The clash of perception of threats also indicates a difference in interests in the project related to market advances and gaining new knowledge.

The compromise conjured by the PI and myself, could be seen as an effort to align our position with that of the business partner. The ways in which boundaries and expectations are flexibly aligned and "unaligned" in collaboration practices (Vedel and Irwin, 2017) becomes evident in the light of the collaboration contract, which becomes a catalyst for alignment and "unalignment" regarding the meaning-making of basic premises of the collaboration.

The business partner signed the contract, and I sent it to my department chair to have it signed and have this matter done with. Or so I thought.

Act 3: The homeless contract and "how low can you go?"

As it turned out, the department chair declined to sign the contract, since he found he was not the responsible party, but rather the PI of the research project should be. Further, the department chair pointed out, that what was stated in the contract about the department's financial responsibility of 500.000 DKK (about 67.000 EUR) needed further explanation, as well as the (newly instated) phrase about the business partner's co-authorship on publications.

The project PI agreed to be responsible for signing, but he also refused to sign the contract as it was. He argued that since the project in itself had no financial obligations between researcher and business partner, it seemed strange to have a section where we agree to financially compensate the company for things unknown. "Can't we just delete this section?" he said, "it's overkill". But, seeing that we could not just delete phrases in this

contract that was made from a template at the tech trans office, we decided that it had to go back to the tech trans office for revision that fit this project.

Here, the homelessness of the contract becomes evident: Since the signing role is contested, it is unclear who is actually the "owner" of this project, and who is the legal responsible part. Should it be me, as the researcher? Or my boss – the department chair? Or my manager, the PI? The answer to this question becomes important in a very practical way, because it might entail financial responsibility in a scenario of contract breach. Suchman writes that the contract can be seen as a symbolic gesture (Suchman, 2003, p. 112), and as such "mediums of communication" (Suchman, 2003, p. 130), where the contract becomes an artefact that communicates, for example, identity and intention, as well as boundaries and members. However, as the case demonstrates, the actual *signing* of the contract becomes a delineating gesture, marking a contractual solidarity against the organic solidarity. The symbolic gesture is no longer just symbolic or tied into organic solidarity, but demands a contractual responsibility that somehow seems to imply scepticism rather than trust.

The situation where everyone declines signing the contract, while at the same time being all aboard the actual project, brings attention to underlying issues that are highly relevant for humanities-based research environments to address and develop:

1 What underlying research culture(s) and perceptions facilitate (or prevent) specific contractual relationships?;
2 What is the relationship between the humanities research departments and the tech trans office?;
3 What is the proper (legal and formal) frame for this type of humanities-based collaboration?

Engaging Durkheim's distinctions between contractual solidarity and organic solidarity, it is here possible to identify issues relating to both concepts. The contractual solidarity is normally upheld by an agreement (in legal terms) between the two parties and their intention to honour that agreement – at this moment, the solidarity towards the contractual relationship is not clear from the university's side, and the reciprocal honouring of the agreement is not possible. Regarding the organic solidarity between the two parties, the case demonstrates how a lack of shared institutional and cultural norms in humanities research towards engaging in legal contracts in academic-industry collaborations makes it difficult to navigate the forming and signing of a contract. This points to the lack of precedent and normative and institutional anchoring at the department and perhaps at the faculty of humanities as a whole.

Looking at the string figure, we have now encountered a big knot that prevents free engagement with the game. To further track the pattern means identifying this knot, and investigating its cause(s). As already

identified, there is a discrepancy between the researcher and the business partner's view of potential threats to the project: the issue of publication rights highlights differences in interests and fears; in short, the business partner fears "bad publicity" and the researcher fears "compromised freedom of research". The homelessness of the contract (lack of responsible signer) highlights the aforementioned lack of norms and precedent; the "uncomfortable" liability section in the contract reads as "overkill" and as an unfamiliar concept to the humanities scholars. Keeping in mind Novotny et al.'s distinction between mode 1 and mode 2 research, here the humanities-based research has its research identity tied closer to the mode 1 research, than mode 2, a point also made by Cassity and Ang in regards to humanities less easily translation into "calculable outcomes in clearly demarcated contexts" (Cassity and Ang, 2006, p. 5). My point here is that even though this collaboration is meaningful in form and content, the humanities-based institution is not geared for the mode 2 research as it comes across in legal and financial terms in a contract, and more generally, it does not have an institutionally "beaten path" of navigating business collaboration contracts.

The collaboration with the company is moving forward; I am collecting data and having meetings with relevant staff. However, I am not able to return a signed contract; it is beginning to become awkward, and it makes me feel unprofessional. I have to find a solution to the contractual issues. I would say at this moment, the string figure is uncomfortably tight on my fingers, and I am not confident in my next move.

The programme manager at my research project has sought help from the tech trans office in vain. It seems we are on our own; at this moment, there is no institutionalised, formalized support for legal issues for humanities-based research–business collaborations. We set up a meeting with a colleague who also has expertise in research legal counselling to help us go through the contract to see if we can change it ourselves. We discuss the possibility of writing a "memorandum of understanding" instead, as to avoid the heavy implications of the current contract, but the program manager reminds me that it is important that we can count actual collaboration contracts in the research project, because currently that is an important criterion for measuring impact.

We are all eager to "downscale" the contract to the bare minimum required to call it a contract, and we discuss "how low can we go" – meaning how little we can write and still call it a contract. We need to write a document that counts as a contract, but at the same time makes collaboration as simple and smooth as possible. Our colleague explains that a contract as a minimum is a written agreement of two parties who decide on a promise, an obligation, towards each other, and a description of how this obligation is imposed. The contract is therefore only meaningful if it imposes legal obligations on the parties. As we go through the different sections in the contract, we make some minor corrections, and remove two

sections altogether. The addition about co-authorship made by the PI and I is deleted again, because our colleague finds it incompatible with research ethics and freedom of research.

The contract can still be characterised as prophylactic, and with a problem horizon laid out in the contractual document, as we saw with Bacchi, which we break down in smaller bits to minimise and tackle them to fit the minimum requirements of a contract. However, this process does something else as well; the process of writing and signing the contract also functions to create new dialogue, to identify interests in output and ownership, and to identify underlying challenges for such collaborations. Thus, the contract's "social potential" lies both in the dialogue-creating process, as well as the social act itself of signing a shared contract.

A week before I give my final presentation of findings to the company, I am able to send them the revised contract, asking them to sign it again, and apologising for the prolonged process. To my relief, the company signs without further comments, and the project PI signs as well. The contract is filed in the research project's list of results (for measuring impact).

Discussion

By going meticulously through this case of a collaboration contract, the details of when and why collaboration contracts become barriers to humanities-based collaborations become part of a greater story. For example, the case helps identify how humanities-based research–industry collaborations are measured by the number of signed contracts, but that the forming of contracts remains underdeveloped in addressing *impact as content*.

Furthermore, there is a problematic discrepancy between the importance and consequence of the contract on one side, and the lack of knowledge and ready-to-support expertise for humanistic researchers on the other. The arrow points at a structural dimension manifested in the tech trans office's overall approach to research–industry collaborations as related to STEM and medical science and a narrow understanding of impact, as well as an underdeveloped precedent and language for legal agreements for humanities-based research–industry collaborations. The structural premises for humanities-based research–industry collaboration is seen in the institutionalized framework, where the lack of research cultural norms and institutional anchoring of a know-how and sophisticated understanding of humanistic research needs, strengths, and rights becomes a barrier for working with collaboration contracts for this type of research projects.

The case also demonstrates the lack of contact and developed ties between the tech trans office and the humanities faculty. Necessary and helpful ways, the tech trans office could accommodate the humanities in the future, include: develop a simple contractual framework that addresses humanities-based interests and stresses freedom of research, and develop

and prioritise the collaborative ties between tech trans office and humanities faculty and, not the least, leadership.

The applied concepts of contractual and organic solidarity help demonstrate that the institution's support system and know-how is underdeveloped for the type of formalised collaborations. The concepts shed light on conflicting norms about "measureable" value creation vs. the purpose and impact of humanities-based research–business collaboration, and they help explore by what are the parties committed and who are the committed parties.

These findings add to the existing knowledge about research–industry collaborations in the hard sciences and the difficulties in measuring impact (Kongsted et al., 2017). The present case contributes to understanding the challenges specific for humanities-based research–industry collaborations; however, it also offers insights into how humanities are not only specifically challenged, but potential pioneers in how to formalise collaborative relationships.

The case brings attention to humanities researchers' culture and heritage in ethnographic work, where mutual trust is generated through relation-building, dialogue, and soft approach, which are some of humanities scholars' finest merits in regards to collaboration. Rather than letting the interpersonal experience be compromised by defining financial resources and output, the organic process of building trust and creating explorative research methods and findings that are strong in complexity, reflexivity, and critical thinking might not have to be incompatible with contractual terms. What if humanities insist on defining impact on their own terms as exactly that, unpredictable and explorative, critical and reflexive analysis of specific contexts and issues, and hence, the impact would be measured in how this integrates into the business (whether it creates direct monetary value or not)? Humanities needs to develop a language and precedence, even a culture, for formalised collaboration contracts, a process that will likely benefit other disciplines in understanding research–industry contract relations.

The need for contracts is real. The occurred knots in the string figure demonstrates how fast a contract can reveal contradicting expectations and fears, and how important it is to have an understanding of one's own rights and obligations as well as the other party's.

One could suggest that to fully engage in the string figure metaphor's potential would also mean including the business partner's perspective in the analysis as a contributing party – to also engage their voice and perspective in the understanding of the contractual collaboration process, to emphasise the string figure not just as a metaphor, but as a critical and attentive practice of multiple perspectives and knowledges. This somewhat undermining point does however open for a new question, namely why university–business collaboration contracts should be authored and managed by the university partner, and not the business partner, or, ideally, both?

The identified challenges poses the question, whether the humanities are equipped and ready to facilitate the "mode 2" of research. Pushing it further, Nowotny et al. conceptualises the existence of a "mode 2 society", where the blurring of lines between research and industry, state and market, are pervasive (Nowotny, Scott, and Gibbons, 2003), a perspective that stresses the importance of academia developing institutionalised and social norms as well as strategies to navigate and engage in mode 2 research. Not out of resignation and "game over attitudes", but in the acknowledgement that becoming-with industries and business collaborations and staying with the trouble, means finding and creating new individual and shared stories and solutions.

Concluding remarks: How to write a (contractually) happy ending

"We want to produce work that is credible to industry, and to policy makers, and we want to produce work that is credible within our own academic environment, to our peers. Very different knowledge regimes. Challenging stuff"[2] (Cassity and Ang, 2006, p. 13).

The aim of this paper was to shed light on how a standard contract created specific challenges for a humanities-based research–industry collaboration, and to point out possible solutions. As stated in the aforementioned quote, working together across "very different knowledge regimes" is "challenging stuff", indeed. Being part of an overall research project that focuses on developing humanities-based research–industry collaborations, this case has served to identify the "contractual issue". The case helps identify the "blind spots" in relation to the needs in a humanities-based business collaboration, and highlights the importance of having a contract that is suited for the specific needs in relation to rights and obligations to, for example, data. Working through this case, we have improved the department's know-how about collaboration contracts, as well as improved the future template for contracts used in similar projects. This is learning by doing, and every time humanities-based research–industry collaborations are attempted, researchers are paving the way for future humanities–business collaborations and the creation of the much-needed cultural norms supporting and facilitating smooth operation. Here, I wish to recommend the following hands on-considerations, should you desire to venture into a humanities-based research–industry collaboration:

- Prepare: Sort out in advance who are the responsible parties at your university and are they prepared for the type of contract you will ask them to sign?
- Define: Consider using the contract as a springboard to open a conversation with your business partner about expectations, hopes

for outcomes, and fear of threats. Facilitate the talk and use it actively, so that the contract will take neither of you by surprise.
- Develop: Current standardized contracts do not have the language to describe humanities' impact. This might not be an issue in your specific project, but consider taking the opportunity to develop and improve contract language in this regard, for instance, in pointing out that the impact of the joint collaboration should be viewed against the value of creating critical reflection, new perspectives, and widen complexity – something that can be difficult to measure in absolute terms.

The collaboration with the company came to an end. With their help, I was able to get access to a unique group of respondents, and to create a research project that provided the company with a complex context of their customers on which they can base their future developments, and at the same time, gain valuable insights to form relevant research contributions to my field. On that ground, it is safe to say the collaboration was successful.

In the end, the improved and revised contract was signed, a necessary formality and prophylactic arrangement, which suggests that the weight of moral obligation – the organic solidarity – towards each other resides in the relation building as well as wider societal norms about fair conduct, was present throughout the collaboration. The contract became a knot in our joint string figure that forced the institution to reconsider and improve their skill set. This case has illustrated a process of becoming-with that involved and transformed the institutional knowledge and its tools to facilitate humanities–business collaborations.

Notes

1 Science, Technology, Engineering, and Mathematics.
2 Quote from a survey with Australian academics (Cassity and Ang, 2006, p. 13).

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4 Performing impact through texts: Unwrapping the social processes behind an institutional term

Ivanche Dimitrievski and Håkan Jönsson

Researchers are increasingly obliged to identify, report, and substantiate the societal, economic, and environmental impacts of their research activities (Broucker and De Wit, 2015). Various concerns have been raised regarding this development, including fears of steering research towards some disciplines at the expense of others, while devaluing fundamental "blue sky" research (e.g., Belfiore, 2015; Hazelkorn, 2015). Critics have also expressed misgivings about the nature of impact, its assessment practices, and definitional ambiguities (e.g., Bakioglu, 2009; Martin, 2011; Ochsner et al., 2017).

This "impactization" of academia (Power, 2018) calls for studies of the ordinary, everyday activities through which researchers actually accomplish (or fail to accomplish) impact. For example, Spaapen and Van Drooge (2011, p. 211) argue for the need to look at "what actually happens in the process of knowledge production and […] the role of different stakeholders in this process". Considering the "productive interactions" involved in these processes, they contend, would "inevitably lead to reconsidering current impact evaluation practices" (ibid). Similarly, Smith et al. (2013), identify a lack of studies elaborating impact accounting practices at the level of academic staff. So, what does "impacting" mean in the mundane, everyday work contexts of researchers?

A key feature of researchers' work (including humanities scholars) is their use of texts. Impact work is no exception. The actual or anticipated effects of research get to count as impact when reworked and presented in a textual format, from research applications and reports to newspaper articles and social media posts. Audiences – as diverse as institutions, peers, practitioners, and the lay public – typically know about the impacts of a research project through the documents where those impacts are being described, summarised, claimed, suggested, and substantiated.

For Canadian feminist sociologist and ethnomethodologist Dorothy Smith (1983, 2001, 2006), texts are crucial for the existence of large-scale, complex phenomena, including impact. Smith's approach is concerned with the *social organisation* through which experience is linked to the institutional fabric. It examines how locally particular, actual relations

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between people become hooked to, and organised through, a discourse. According to Smith, texts are central to this process. For example, it is through the work of elaborating locally particular statements of effect (e.g., "this tool makes my life easier") in relation to documents (e.g., institutionalised guidelines for identifying and measuring impact) that those statements become instances or expressions of, say, "technological impact", which then can be elaborated in ways divorced from the local and particular.

This article aims to shed light on the social organisation of research impact understood as textually mediated practices. Following Smith, we look at textual accounts of impact to reveal and understand the social relations that generate and sustain specific versions of impact. How do texts render impact available as a reading to a variety of diversely situated social actors? What assumptions enter the processes of rendering impact textually? What relationships are being established between writers and readers through textual accounts of impact? By examining these questions, we draw implications for humanities and social sciences as objects of impact policies as well as, importantly, in terms of their place in impact-making outside academia.

Framing research impact

In line with the policies of new public management, since the 1990s, policymakers in higher education and research have been putting great emphasis on evaluating and quantifying the outputs and impact of research (Belfiore, 2015; Broucker and De Wit, 2015). The early models for doing this were heavily influenced by business economics. More recently, alternative frameworks for impact assessment have been launched to tackle the perceived shortcomings of those early models (e.g., Molas-Gallart and Tang, 2011; Bornmann and Marx, 2014; Morton, 2015; Ozanne et al., 2017). Notable amongst these is a growing concern with impact as a complex socio-political phenomenon (Douthwaite and Hoffecker, 2017; Chouinard et al., 2017).

Thus, for Kuby (2003), the non-linearity of innovation processes makes it problematic to establish unambiguous links between research outputs, or indeed specific research actors, and highly aggregated (societal, economic, or environmental) benefits. Further, Douthwaite et al. (2003) highlight the importance of "process-related factors" (e.g., the nature of the relationships between researchers and stakeholders, their duration, the type of research strategies used in specific contexts) as determinants of impact. These studies emphasise that, when evaluating impact, evaluators need to look at the everyday activities involved in achieving it. At the same time, however, they fail to address that impact models themselves are an important part of those activities. For example, organising impact assessment procedures often involves reviewing existing impact models and impact definitions, in

relation to which to generate working ones, to be used when identifying and evaluating a given project's impacts (Derrick, 2018; Ozanne et al., 2017; Penfield et al., 2014; Muhonen et al., 2019; Springer-Heinze et al., 2003).

How then should we understand the use of impact models in relation to impact? A useful starting point in this regard is Jasanoff et al.'s (1998) concept of "framing". For them, framing refers to "the process of selecting out and making sense of particular, salient phenomena to be considered as *impacts* from among the wide array of biophysical and social processes taking place at any given time" (Jasanoff et al., 1998, p. 3; emphasis in the original). Any such selection, argue Jasanoff et al., not only singles out certain aspects of a problem for attention, but also connects it with understandings of how things happen and what things matter. Framing thus relates to the organisation of knowledge that people have about the world in light of their attitudes towards key social values (e.g., risk, nature, freedom, etc.); their notions of agency and responsibility; and their judgements about the reliability, relevance, and weight of competing knowledge claims.

How researchers frame the impacts of their research activity, then, matters. According to Lund (2020), *boasting* – namely, the use of "excellence vocabulary" when communicating one's research to others, has become a form of mandatory work in contemporary university settings. However, despite a widely held belief in the opposite, Lund shows that not just anyone can turn "boasting" into a resource for securing or improving their professional standing. For instance, junior female academics, young researchers in general, or new academic departments may face barriers to being considered "legitimate boasters". Lund thus emphasises the need to look at the social organisation of the practices articulating impact in particular contexts.

At the same time, we ought to be cautious. Framing a practice as "boasting" qualifies it in particular ways. The term *boasting*, for example, connotes exaggeration in how somebody communicates their results and achievements. In formal settings such as review panels, the reviewers' work in part at least consists of estimating the "actual" or "real impacts", given the possibility that those who have claimed them might have been "exaggerating". Reporting review panellists' concerns in this regard, for example, Derrick (2018: 73) writes in the context of UK's Research Excellence Framework (REF) 2014:

> Both the ICSs [Impact Case Studies] and the Impact templates depended heavily on the use of narrative to justify the worth and sell the value of Impact. The narrative played a major role in constructing notions of the Impact as valuable and outstanding (4 stars). Evaluators acknowledged how they were aware of how many HEIs [Higher Education Institutions] had employed professional writers to construct each ICS, a consequence of the REF2014 Impact criterion that has

> been widely acknowledged. This professional construction wherein the value of the Impact might be "a bit of hyperbole", or ICSs might be "lying a little bit" and that panellists might be "blinded by people who are good storytellers".

The aforementioned excerpt demonstrates several important aspects of the phenomenon we are investigating. Firstly, it suggests that the process of producing impact accounts involves a variety of actors, potentially beyond those to whom the impact is attributed through the accounts. As claimed earlier, this process may also involve professional writers. Further, our analysis will make apparent the role of administrators in impact articulation. Secondly, the passage connotes the importance of textual organisation for the articulation and evaluation of impact. Somehow, the way in which impact accounts are written provides for the reviewers' judgement *that* a specific higher education institution has achieved impact, for their shared sense of the extent to which *that* institution has achieved *that* impact, and for their mutual assessment of it as valuable. These are all remarkable achievements, given, as Derrick reports, how evaluators often face situations where multiple actors claim the same impact, thus being "forced" to decide which impact to attribute to whom and to what extent. More broadly, thirdly, the passage frames impact as a practice involving *writing* and *reading* impact accounts, where the writing orients to the reading, and the reading orients to the writing. Somehow, the sense for the impact claimed in the accounts arises in that doubly reflexive process. We will now move on to an empirical case, illustrating how framing impact can be enacted in practice.

Impact as relevance – The case of the practice abstract

One European research funder with an explicit focus on impact is the EU. Since 2018, we have been working within NextFood – an EU-funded, Horizon 2020 project. As a project partner, our home institution, Lund University, has several responsibilities, including writing and publishing several practice abstracts as a way of demonstrating the relevance of our emerging research results to stakeholders. The EU also expected that we align the practice abstract format with one of the project's main activities – the development of a new framework for assessing the impact of agricultural research (see Dimitrievski and Jönsson, 2019).

The general public or the average humanities scholar might not be familiar with the practice abstracts format, but if you go to EIP AGRI's project database,[1] you will find thousands, where actors from across the EU have described their research while emphasising, from their own perspective, the usefulness and relevance of that research to its potential users. While currently addressed as just a communicational tool, the practice abstracts are also thought of as forming a ground for impact evaluation in

the future. It is important therefore to address practice abstracts critically at this stage already, by examining how they partake in social organisation and thereby their political consequences.

During the NextFood project, we gained extensive experience with practice abstracts, forming the empirical basis for this chapter. We have been writers of practice abstracts – being part of an EU-funded project, we are obliged to produce and disseminate a minimum number of them. We have also contributed, in collaboration with others within NextFood, to the development of the practice abstracts format. As part of the latter, the research group that we are part of revised 100 randomly selected practice abstracts from different countries across the EU. In total, we conducted 30 interviews with farmers, agricultural advisors, and other stakeholders from Greece, Sweden, the Czech Republic, and North Macedonia (as a representative of an EU candidate country), each lasting 40 minutes on average. In addition, participants in ten mixed focus groups, each lasting 70 minutes to 2 hours, were asked to read through pre-selected practice abstracts and then make comments regarding understandability and relevance.

In this paper, we focus on the practice abstract that generated the liveliest discussions, where issues central to the paper, such as language, "who this is for", and "whose interests does this enact", came to the foreground. It should be noted, however, that these discussions reflected how the participants (and we, as the facilitators/interviewers) felt in relation to the broader range of practice abstracts reviewed. Thus, our textual analysis of the single practice abstract presented in the next section reflects our rich experience regarding this EU format, including relevant snippets from interviews with stakeholders and NextFood project members. Our textual analysis of the practice abstract as an impact-framing technology is informed by Dorothy Smith (1974, 1978, 1983), on which we elaborate in the next section.

In working out a way to include practice abstracts into the NextFood impact framework, one major concern we had was that practitioners, to whom practice abstracts were addressed as a way of communicating relevance, might not be able to understand them. The question with which we were concerned was: Will practitioners be able to read these practice abstracts? The EU documents address this primarily as a problem of language, suggesting, for example, that apart from English, authors should also translate the abstract in the native tongue of the potential readers, that they should avoid using technical ("scientific") terms, and so on. We too arrived at similar conclusions initially, agreeing that if practitioners were to see relevance, the practice abstracts had to be written in a simple way. The sentiment was shared by the agri-food experts we involved in the work, who even noted a need for mediators – namely, people who would translate the content of the practice abstracts for practitioners. In practice, all this led us to producing new, "simplified" guidelines for practice abstract authors on how to write "simple".

These concerns addressed the relationship between practice abstracts and practitioners as a problem of language, while presupposing relevance as something that anyone with the proper mastery of the language could suggest through writing and could see through reading. Our analysis of the practice abstract mentioned in the following text, however, challenges this assumption.

An anatomy of a practice abstract

Henceforth, we will focus on a specific practice abstract, produced by a Dutch project about protein extraction from grass. It reads like this:[2]

> Title (in English): Protein from grass by the farmer, for the farmer

Objective of the project (in English):

> The aim of this project is that a farmer can independently extract high-quality proteins from the grass that can be fed to the animals. A new technology is being developed to extract the proteins from grass. The grass is converted into two semi-finished products, grass juice and grass fibre. After which it is converted into the end products fibre, protein, phosphate, and the other juice (the "whe"). The semi-finished product "grass juice" is suitable as an alternative to soy in pig feed. This means an improvement in meat quality and animal health is expected. The semi-finished product "grass fibre" can replace the current ensiled grass for dairy cattle. The required nutrients for the cows are retained.

Description of activities (in English):

> Within this project, the technology will be further developed into a prototype for obtaining the semi-finished products that can be used at farm level. The technology is new and has not yet been tested on a practical scale. The current grass refining installation from Grassa does not meet the capacity to be supplied. The installation must be scaled up from 300 kg per hour to 2000 kg per hour. We are also working on:

- The development of the pipeline system and the silos.
- Adjustments to the mixing installations at the participating farmers.
- The development of the logistics process.

In analysing this practice abstract, we draw on the work of Smith (1990a,b, 2001), who argues that the organisation of texts is isomorphic with the conceptual schema used to make sense of it. This isomorphism is not merely a matter of spatial arrangement – namely, where in the text different items, things, or descriptions appear. Rather, we take it that "organisation"

primarily refers to the ways in which the text depicts the character of the (social and material) entities mentioned and, crucially, how they relate to one another. For example, in her analysis of a text which purports to describe someone suffering mental illness, Smith (1978) shows how key organisational features of the account – for example, the depiction of which characters have which attributes, who is responsible for what, which persons ally with the views of others, what counts as behaviour that is "out of character", and so on – sustain the key features of what we think of as mental illness.

In a way resonant with arguments in Science and Technology Studies (STS) that practices enact realities (Law and Singleton, 2000; Mol, 2002; Woolgar and Lezaun, 2013), Smith shows that what texts "convey", or apparently "report upon", is not so much an antecedent phenomenon as it is the upshot of specific practices of enactment. Following Smith, then, we take it that the aforementioned practice abstract does not merely *suggest* impact from adopting the described technology in the future, but also, initially, *accomplishes* impact as a suggestion. The reading of "relevance for practitioners", in other words, arises in relation to the practice abstract insofar as the text is organised to provide for such a reading. Thus, our analytical aim, following Smith, is to show how the practice abstract makes available a cast of relevant characters, assigns attributes to each, and depicts the network of rights and responsibilities that sustain the specific sense of impact as "relevance for practitioners".

It is important to note at the start that, while the practice abstract explicitly addresses "farmers", this orientation is accomplished in the authors' relation to an EU institution. The EU mandates that all EU-funded projects will submit accounts of their relevance to practitioners in the form of practice abstracts. The EU-funded projects address this by using various EU documents that provide guidelines[3] for writing practice abstracts. The orientation to farmers in the current case is rendered in that textually mediated relation. For instance, the EU documents establish *practitioners* as the target audience. The given practice abstract realises that institutionally directed target as the character "farmers". It is possible to imagine other stakeholders of the knowledge generated in this project – for example, academic peers, the universities hosting the research activities, the suppliers of inputs for those activities, and so on – which, in terms of the EU documents organising the formulation of practice abstracts, are not accountable as practitioners, and so neither as target audience.

The institutionally determined purpose of practice abstracts is conveying knowledge generated in projects in ways that are "relevant to practitioners". But note the use of project terminology for accomplishing this, specifically the categories: "objective" and "activities". On the one hand, framing relevance in this way presumes prior knowledge of and skill in using project-particular methods of selection and ordering. Not all activity (in the broader sense of this word), not all features of activity as they appear

to those who participate in it, can be conveyed through the category "activities" as it is used in a project setting. Activities count as "project activities" in relation to a set of pre-determined, institutionally sanctioned, and formally accountable "project objectives". The activity and features of activity that do not relevantly and recognisably pertain to "objectives" do not (and cannot) formally figure in reports of "project activities". Indeed, activities explicitly oriented to "impact" often do not even count as work.[4]

On the other hand, this framing of relevance interpolates a reader ("practitioner") who is capable of using project terminology for making sense of the practice abstract. Thus, the link between "working on … [t]he development of the pipeline system and the silos" *and* "a farmer can independently extract high-quality proteins from the grass that can be fed to the animals" is not readily apparent. The making (or presuming the existence) of such a link depends on a reader who can appreciate and understand how the actions formulated under "description of activities" can be seen as steps in, or as moves towards, the realisation of the benefits/positive effects claimed under "objective of the project" (or the vice versa, a reader who can see those benefits/positive effects as a motive for the activities formulated subsequently in the text).

The practice abstract's orientation thus originates in the authors' textually mediated relation to the EU institution. Following the EU guidelines, the authors have rendered project features in terms of a "title", "objectives", and "activities". It is important to emphasise that this is the institutionally sanctioned way of narrating projects. If the account was written for farmers only, if it was written in a different "context of telling" (Smith, 1974), it might have followed a different structure. Of course, following a different structure may also render the account unrecognisable as a "practice abstract" to the EU institution that mandates it.

In writing practice abstracts, readers-as-practitioners is not the only orienting category. For example, the authors might orient to, say, coming up with a title that adequately expresses what they think their project is about. Linda (pseudonym), who is an administrator in the NextFood project and charged with the task to collect and publish practice abstracts online, expressed concerns about the authors' lack of investment in making a "searchable title", one with "the right keywords" in it. In this way, Linda holds the practice abstract authors accountable to an understanding of readers as *searchers*.

We can think of Linda's work as orienting the production of practice abstract titles (i.e., their writing) to their intended context of consumption (i.e., the online setting) where, apart from such "quality issues" as clarity, understandability, and overall appeal, additional textual features come to matter as well (e.g., searchability). This matters if only for the sheer amount of practice abstracts being published in the official online database, making exposure and reach, that is, the capacity of the practice abstract to be read by an audience who uses this database to access

it, an increasingly relevant concern. Expressing such a concern, for example, a colleague in the NextFood project noted: "If a PhD cannot find our practice abstracts, how can we expect that ordinary farmers will?" (e-mail communication, 2020). We can consider then titles as playing a role in the articulation of impact through practice abstracts, in the sense of providing for the possibility to be searched, and thus found and read in the online setting of their publication.

The EU guidelines specify a proper way of rendering projects accessible through practice abstracts to practitioners, in this case, farmers. The specific address is done, not simply in relation to farmers but also, crucially, in relation to institutional specifications of how that is appropriately done in text. Apart from overall instructions regarding the structure of the text, this also involves specifications elaborating the expression of relevance. For example, in one PowerPoint presentation from the European Commission,[5] this advice is given:

> The main scope is to focus on results, outcomes and recommendations that can "be used" and move the practitioner to action. Avoid describing project activities since these are of no further use for the reader at the time he/she is reading it.

The excerpt instructs that practice abstracts are written in ways that suggest "usability" and incentivise "use". It is important to note, however, that the sense as elaborating such an incentive arises for readers who can, at the point of reading, recognise and appreciate them in this way. For example, we presented this practice abstract to a farmer from North Macedonia. After reading it, his face as if to suggest he is not entirely convinced, the farmer made the following remark:

> But soy is rich with proteins. It would take a lot of grass to achieve the same nutritional effect.
>
> (personal interview, February 2021)

By contrast to farmers in countries such as the Netherlands, farmers in North Macedonia do not *cultivate* grass. The Macedonian farmer sees grass as meadows – as what marks where cultivated land ends. It ends there because typically, due to the shape of the terrain, agricultural machinery cannot access such "wild" places. The farmers using grass, therefore, use it as pasture. As a meadow/pasture feature, moreover, grass is subject to the climatic conditions of the country, it is not irrigated, and is, for the biggest part of the year, dry. All this inflects the farmer's remark "a lot of grass" to suggest, not only the quantity needed but also the magnitude of the effort necessary to obtain such a quantity given the assumption of grass as primarily a natural and not an agricultural object in the farmer's context. The effort necessary to use grass as an *alternative* to soy as a source of protein for animals is simply too great.

We thus point out that the sense of the technology for grass protein extraction *as of use* depends on a reader who can adequately appreciate the claim about grass being an alternative to soy. Put differently, the practice abstract implicates a community (of farmers) in relation to which the description can be read as demonstrating relevance. While the practice abstract renders a general farmer, our elaboration points to the geographical specificity of this "general farmer". Would farmers in North Macedonia – an arid region – find the extraction technology as useful as would or might farmers in the Netherlands, where grass is green for most of the year? Our elaboration suggests that the sense of the generality of the claimed relevance depends on who reads it. Assumptions about the farmer and about what farmers have on disposal in their work have entered the writing of the abstract, rendering relevance locatable in the text for them.

Another example of this is the implicit economic orientation of the text. Thus, in the sentence "This means an improvement in meat quality and animal health is expected", the first part enacts an economic incentive (i.e., it interpolates a farmer who would use the technology for reason of improving meat quality). Though it does not anchor the use in purely economic intent (albeit secondarily, animal well-being is also suggested), the main intention is clearly to address competitiveness. This can also be seen in terms such as "semi-finished products" and "end-products", signalling economic discourse, and "alternative to soy", which implies an orientation to competition.

The practice abstract thus implicates whoever reads it and recognises him/herself as the addressee, for example, a farmer or other kind of potential reader, into a specific institutional framing: *an economy-oriented practitioner*. The claim to "use" locatable in the practice abstract is articulated to this version of "the farmer" – and not to farmers in general, who might have other interests or motivations, at least not simply, solely, initially, or primarily economic.

Damianakos (1997) claims that for many Greek farmers, and we believe this to be an appropriate characterisation of many Macedonian farmers too, farming is not seen as an occupation. Rather, it is something that farmers do in the absence of occupation. Moreover, as Damianakos suggests, the relations constituting farming and farmers in the Greek context are not always and necessarily economic. As we have demonstrated elsewhere (Dimitrievski and Jönsson, forthcoming), these relations can be family or other communal relations. Thus, our analysis of organic farming practices in North Macedonia and Greece suggest that the decision to apply a particular fertiliser, or indeed introduce a novel technology such as that described here, need not have an economic, scientific, or environmental grounding at all, but rather a grounding in what a family member (typically a patriarch) advised or in what others in the relevant community (e.g., the neighbour, other farmers) do when it comes to using fertilisers or novel technologies.

When the framing category is an economy-oriented farmer, this is potentially senseless.

The organising concepts of the practice abstract, then, are farming and farmers as understood in the institutional EU setting. Organising the practice abstract according to the conceptual contours of the nonoccupational farmer would address matters that do not fall within the framework of practice abstracts, thus resulting in documents that would not be recognisable as practice abstracts to the EU institution. More broadly, we could think of practice abstracts as organising the expression of impact as "relevance to practitioners" according to institutionalised presumptions regarding what constitutes farmers and farming. The point is that, recognising relevance as expressed in the practice abstract implies acceptance of, and orientation to, the category farming/farmer-as-profession/occupation.

Discussion

The focus of this article was on the relationship between research impact and what researchers did in their daily work-life. Looking at a single practice abstract, we showed that the relationships between institutionally recognisable versions of impact and the actual, everyday activities of the researchers achieving, identifying, and reporting it are complex. These activities oriented to multiple stakeholders. Different presumptions regarding what/who these stakeholders were, and how best to address them, entered the process of reaching out to them through practice abstracts. Based on our analysis, we argue that we cannot (and should not) take the work that goes into *writing research impact* as merely a matter of *communicating* impact. Impact – understood as social relations organised locally to provide for seeing, interpreting, judging, and using impact in specific ways – is not external to the texts communicating impact, but rather is achieved through them.

The social organisation that underlines the communication of impact enables multiple actors within a complex social landscape, such as agriculture, to speak to/with one another about impacts without necessarily specifying what precisely is meant by this term. Or, differently put, readers must take-for-granted the social organisation enacted through the impact accounts, in this case, the practice abstracts, for the suggested and/or described impacts and relevance to make sense. If we treat texts such as the practice abstracts merely as representations of impact – as just summaries of some project's potential or actual effects out there – we risk naturalising certain institutionalised notions – for instance, farmers – as purely economy-oriented entities or farming as fundamentally an occupation/profession. We thus claim that by studying the making of impact texts, we were studying important dimensions of impact in the making.

Our study has important implications for impact assessment proposals, such as that of Spaapen and Van Drooge (2011). Their model of "productive

interactions" – namely, the interactions with stakeholders that lead to change – has been cited by Ochsner et al. (2017) as a suitable impact assessment framework in the context of the humanities. Our analysis complicates this perspective in several ways. Firstly, we have seen that impact models are not external to, but rather intricately entangled with, impact-making processes. Secondly, depending on the institutional vocabularies used, some interactions do not count as interactions in a project context and thus, as interactions that can be seen (or assessed) as "impactful". And thirdly, in Spaapen and Van Drooge, textual mediation is merely an aspect of "indirect interaction" – namely, the type of interaction that involves some kind of mediating vehicle, be that texts, images, or film, as opposed to face-to-face, "direct" types of interaction. This, however, undermines the role of texts in formal contexts such as research (be that in the humanities or not) and theoretically relies on a simplistic differentiation of text and action (for a careful problematisation of this differentiation, see Woolgar and Cooper, 1999). In fact, our study shows that we need to attend carefully to the textual dimensions of impact – especially in the social sciences and humanities where texts, as Ochsner et al. put it correctly, are central.

The critical reader may ask if our approach to research impact is useful outside the seminar rooms of the universities. Is this not just yet another attempt to deconstruct a term while evading pressure to provide something useful? We do not think so! As we have shown in this paper, impact accounts enact relationships. The implication is that changing the account-making technologies has the potential to change the relationships. So, how can humanistic knowledge contribute to innovate, leverage, and support businesses in their innovation processes and in everyday practice?

The interactions accounted for in this chapter between researchers (including humanities scholars) and businesses (like farm businesses) do not automatically result in impact. They become matters of impact in the textually mediated work processes where actors use institutionalised and theorised notions of "impact" rendering those effects and implications analysable and addressable as "impacts". This process makes the actual people, in relation to whose activities and experiences those effects and implications originally arose, disappear. Humanities can play an important role in slowing down that organisational process, specifically: (1) by bringing attention to the actual work that impact discourse organises and obscures and (2) by facilitating the development of modes of communication that make actual people present in articulations of impact.

While the practice abstract format is intended to address practitioners, it ultimately fails to relate to practitioners' actual practices. We have shown that "relevance" as expressible through practice abstracts implies acceptance of and orientation to an economy-oriented farmer, further implying a particular way of dealing with resources, both natural (e.g., grass) and technological (e.g., machinery to cultivate, harvest, and process grass). The institutionally sanctioned vocabulary used to write practice abstracts fits this

monolithic view of practitioners. At the same time, farming practices (or business practices in general) are multiple, accomplished in people's diverse relations to their social, economic, and environmental surroundings. Impact, as institutionalised through the practice abstract format, thus presents a narrative that obscures the work and activities of a large part of the intended user category, in this case, farmers. Understanding this process of exclusion has the potential to support the development of socially more just approaches to impact.

To facilitate the development of relationships that more closely align with values such as "equal access" or "equal grounds", there is a need for changes in the organisation of the work that provides for knowledge flows, which goes beyond just obligating researchers to engage in writing practice abstracts or in similar forms of impact accounting. Part of this may involve, for example, attending to and revising the descriptive technologies, vocabularies, and categories involved in the communication of knowledge, including impact.

Conclusion

In the research literature on impact, a lot of attention and creative thinking has been dedicated to the pros and cons of different models for research impact assessment. But the very activities for achieving impact, and especially their textual dimensions, have largely been overlooked. Impact is not only written and read, but also actually accomplished through writing and reading. We have shown that impact accounts enact social relations. The implication is that changing the account-making technologies has the potential to change the relationships. Humanities can have an important role in facilitating such a political process, and thereby enable the forming of a new ground for research–business–society interactions.

Notes

1 https://ec.europa.eu/eip/agriculture/en/find-connect/projects
2 In the original version, each section of the text was given in Dutch (identified as the "native language") first, followed by translations of those sections in English. Our analysis focuses on the English sections exclusively. The use of Dutch in the original is relevant to the analysis, however, in that it pre-figures practitioners as readers of Dutch. We return to this point later.
3 https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/annex_to_eip_guidelines_on_eip_common_format_-_16_march_2016_0.pdf
4 Here, we are drawing on a Swedish informant who noted that while researchers are nowadays and increasingly obliged by their institutions and funding bodies to estimate, achieve, report, and substantiate – in short, to account for the impact of their research, the work that this involves (e.g., forming audiences through the use of online platforms such as Facebook or Twitter, or reaching out to potential audiences and "users" through media appearances, and so on) is nevertheless not being

remunerated and is not part of the annual work planning. In those senses, according to the informant, such impact-oriented work does not formally count as "work".

5 http://ec.europa.eu/information_society/newsroom/image/document/2018-20/2018_march_8_-_practice_abstracts_and_info_flows_-_inge_van_oost_and_fabio_cossu_52B906D2-A6B3–7C00-EAA58BB06620BFEF_52371.pdf

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5 Questioning the business–humanities divide in media studies: A reformulation of the administrative–critical distinction in stakeholder collaboration

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Introduction

This chapter proposes to bridge two perspectives on media audiences – a critical perspective represented mostly by scholars in academia and an administrative perspective held by actors working in the media industry – and to showcase how collaboration can be used to overcome diverging knowledge interests between these two perspectives. In media studies, the role, position, and work of the audience – the influence of people reading, listening, and watching media over media's structural conditions – is perhaps the most contested issue of the field. Are audiences hoodwinked into submission to powerful media effects, or are they active agents of meaning-making, coproducing the social and cultural fabric with their media consumption?

The conceptualisation of audiences in the industry is strongly connected with business models and social functions of media. As advertisement builds on the promise that media have effects on audiences, and as media provide channels by which societal actors distribute their messages, audiences are conceptualised as consumers, as targets of messages, and as objects to be reached and influenced. From the position of critical media studies, audiences are consequently viewed as being commodified by the media industry, and as such, vulnerable in the face of media's attempts to administer, control, and manipulate their meaning-making and actions (Ang, 1991). The dawn of datafication, where more detailed user data allow for individually tailored messages and advertisement (Turow, 2011), has arguably worsened the position of audiences.

In audience research, there is a marked and widely recognised distinction between industry and academic research (see, for example Sullivan, 2013, Patriarche et al., 2013, or Napoli, 2011). As scholars interested in the media–audience nexus, we are particularly sensitive to the distinction – even

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opposition – made between business and the humanities. This distinction is often discussed in our field as one between industry research – characterised by a desire to control and commodify audiences as consumers – and academic research – lifted by a critical approach aimed at the emancipation of audiences as citizens. In media studies, this distinction has come to be known as one between administrative and critical knowledge interests (Lazarsfeld, 1941).

In this chapter, we argue that the separation of these knowledge interests is unproductive. An integration of the two traditions is desirable in order to produce knowledge that takes into account the imperatives of media companies as well as the human needs of the audience (for example, to participate in a mediated environment they can trust and which contributes positively to democracy). We challenge and reformulate the opposition between administrative and critical knowledge interests into a proposal for the joint production of knowledge that acknowledges differences in the business–humanities relation and puts these differences into productive use, rather than framing the relation as adversarial. We outline this integration between administrative and critical knowledge – or between business and humanities – as a stakeholder collaboration that encourages dialogue and a meeting between the two interests. The intention is to foster innovation and more robust knowledge about socially critical topics such as datafication, but more generally about the relation between humans and technology.

Our own academic background is that of audience scholars who find the administrative perspective on audience research incompatible with our own humanistic and critical view of audiences as active agents. The proposition of bridging the critical and administrative perpectives can be seen as controversial in media studies. While we share many of the points made by critical scholars regarding the threats of datafication to human rights and democracy, we are concerned by the implicit protectionist approach embedded in the dominant political economy view of datafication research. By offering a critique of the media, this research simultaneously downplays or ignores the agentic character of the audience while arguing for its protection against the evils of the industry. We find it increasingly challenging to communicate the audience perspective across the divide and, hence, look favourably upon ways to bridge the gap between administrative and critical perspectives in media studies.

The chapter is structured along the following lines. First, we introduce the origin of the distinction between administrative and critical perspectives that has contributed to the compartmentalisation of audience research. Second, we outline the distinction in the context of the datafication of media audiences, and demonstrate the disadvantages that this separation has engendered. Third, we review several theories and models that encourage collaboration and exchange between different knowledge perspectives, underlining some of the limitations we see in these attempts. Finally, we

propose a phenomenological approach (Finlay, 2012) as a way to overcome the critical–administrative divide, and argue that both sides of the divide can potentially gain from better understanding the research done by the "other side".

Our vision for the collaboration is guided by theories in collaborative knowledge production, such as practical theory (Barge, 2009) or dialogic knowledge production (Tsoukas, 2009), and various concepts used to define the terms of a joint meeting ("joint relevance", Chimirri, 2015; "bounded rationality", Simon, 1957; "alignment experts", Sorenson et al., 2019). Our phenomenological perspective on stakeholder collaboration is relevant to larger concerns about the interaction between technology and society, between automation and human action (Hasse, 2020; Vermeulen et al., 2018), which have heightened with the rapid deployment of technologies in many sectors.

The historical separation of critical and administrative research

In the early days of media research, there was no strong separation between industry and scholarly research. Herta Herzog's research on radio audiences (1941), entitled "What Do We Really Know About Daytime Serial Listeners?", is considered pioneering work in both academic and industry circles. Herzog's career navigated back and forth between academia and industry. Following her contribution at Princeton University, Herzog joined an advertising company, and later went back to European universities to teach about the reception of American soap opera. For Herzog, the need to understand what it means to be a media audience in the modern age was manifold and complex, and not reducable to one interest or perspective.

Working on the same project as Herzog (the Princeton Radio Research Project, 1937–1944), Paul Lazarsfeld and Theodor Adorno – two prominent figures in media research – engaged in a disagreement that marked media studies profoundly. As Lazarsfeld was developing methods to help radio broadcasters attract more listeners, Adorno studied the role of radio and, more broadly, cultural industries, in promoting a false consciousness amongst listeners. In face of their differing interests on how to study media and their audiences, the two scholars eventually parted ways, and the disagreement served as a silent background for Lazarsfeld to establish the distinction between administrative research and critical research (1941).

Interestingly, many other distinctions or dualities have followed from this repartition of work in media studies. The administrative versus critical distinctions point to dualities between empirical and theoretical work, quantitative and qualitative methods, practical and abstract thinking, or applied sciences and pure sciences. Ashcraft and Simonson (2015) outline a similar gap between academic and commercial research running along

gender lines, in which Herta Herzog's work in the same Princeton's project was supposed to draw in resources through conducting "messy" empirical research, while "pure" theorising work was conducted by Lazarsfeld. Importantly, as will be the focus for this chapter, the distinction between administrative and critical increasingly signifies the gap between technological development and human development for those concerned with the impact of recent technologies on societies.

The administrative and critical perspectives on datafication

While the field of media studies has moved on from the disagreements between the two scholars, the advent of big data in the media industry is resurfacing the distinction in a new arena. The quantifiable data about audiences and their behaviour is attractive for industry researchers as the sheer magnitude of the data comes with the promise of understanding (and manipulating) the audiences better than ever. And as more scholars raise alarm regarding the impact of media industries and their reduction of people into computable units, they follow the protectionist logic of the early critical research. Thus, on one side of the divide, there is the "big data" paradigm (Kitchin, 2014a), which draws on the availability of data from the internet and social media and on advances in computation, artificial intelligence, and machine learning for administrative purposes. In the context of media, these purposes mainly translate into business and marketing strategy, notably by commodifying media audiences (Fisher and Mehozay, 2019; Zamith, 2018; Athique, 2018). On the other side, there is a growing literature in academia on "datafication" (Van Dijck, 2014; boyd and Crawford, 2012), research inspired by political economy and preoccupied with the implications and consequences of data collection, and applications for citizens and democracy, produced under the broad umbrella of "critical data studies" (Iliadis and Russo, 2016).

While administrative and critical research can be considered ideal-types or poles, and many examples of integration or overlap can surely be found, the distinction they bring has become a defining aspect of media studies. At the heart of the distinction between administrative and critical research is the question of whose interests are served by the knowledge produced in the field. Today, the distinction articulates an administrative interest in which knowledge is produced to help media organisations achieve their commercial and institutional goals, and a critical interest whose knowledge serves to protect the interests of audiences.[1]

As datafication research focuses on the political economy of media, we can observe the human perspective disappearing from the critical research. Depicting media audiences and users as vulnerable and passive victims of datafication, the critical research does little to bring up the human perspective of audiences, whose lives are deeply intertwined with media and

platforms. As audience researchers, our interest is to critically assess the role of media for social and political life while remaining attentive to the contributions made by an active and resourceful audience, whose everyday life is culturally and socially linked to media in important ways. Therefore, we are dissatisfied with the current distinction between administrative and critical research and believe it to be inadequate in articulating relations between business and humanities. A phenomenological approach that emphasises a meeting between the lifeworld perspectives of administrative and critical stakeholders can provide a way to re-humanise both critique and business.

Administrative perspectives on big data

Big data have become a key source of innovation in industry (Kitchin, 2014a). Knowledge produced about the audience draws on the availability of data from the internet and social media and on advances in computation, artificial intelligence, and machine learning for administrative purposes. The optimism animating the industry towards datafication exposes the blind spots that administrative research has developed over almost a century of isolation from critical research. Van Dijck (2014) associates this optimism to an ideology that "betrays a belief in the objectivity of quantification and in the potential of tracking all kinds of human behaviour and sociality through online data" (p. 201). As detailed by Beer (2018), the discourse of marketing materials presents data analytics as speedy, accessible, revealing, panoramic, prophetic, and smart. Others compare data to the new oil[2], which is telling of the blind spots of administrative research towards the ethics, sustainability, and the well-being of society.

This fixation with data is characteristic of an industry obsessed by control. Audience control, however, is not an aim in itself, but has become an instrument of organisational optimisation for beating the competition and making profit. Knowing the audience helps to target and market media production. But as this idea has developed within the administrative perspective in isolation from the critical perspective, it has translated into a narrow understanding of the audiences.

With more and more data, the gap between data representations of audiences and the actual humans behind these data avatars is widening. Audiences are increasingly seen through the exclusive filter of data (Rouvroy and Stiegler, 2016), which is tracking devices rather than people (Bolin and Andersson Schwarz, 2015). Athique (2018) argues that audiences have become largely fictitious commodities that make the digital economy work, claiming that "we may find ourselves increasingly studying data about audiences, instead of audiences themselves" (pp. 71–72).

The reliance on data and metrics is justified by a need to "stabilize industries struggling to adapt to the rise of digital media" (Arsenault, 2017, p. 9) and cheap and automatic measurements of the audience allow us to see

audiences differently, albeit not more accurately (Fischer and Mehozay, p. 201). In the media sector, this means that labourious, expensive, and comprehensive ways of knowing the audience are replaced by audience analytics and metrics (Tandoc, 2019; Zamith, 2018), which provide a constant inflow of data about every website visitor, application user, or smart TV viewer. Complex understandings of audiences are replaced by simplistic and inaccurate quantification that gets challenged by the critical research based on the intent of control and not so much as it loses the human behind the data.

The empiricism of big data leads media to constantly experiment with their audiences, without being able to foresee the consequences of the choices made. As big data knowledge is for the most developed in commercial contexts on engineering know-how, it is not concerned with its societal implications (Murschetz and Prandner, 2018).

Critical perspectives on big data

In parallel to these developments, research from the critical perspective exposes the dangers and shortcomings of datafication on citizens and democracy (Zuboff, 2020; Couldry and Meijas, 2019a), and denounces the increased commodification and objectification of media audiences that follows from focusing on the quantified audience and exploitation of user data (Fisher and Mehozay, 2019; Zamith, 2018; Athique, 2018). And yet, these critiques have limited impact on the development and application of data analysis and its commercial applications as they fail to appreciate the knowledge interests driving datafication in the media industry.

Much attention in the critical literature is directed towards the "big five" (Alphabet/Google, Amazon, Microsoft, Apple, and Meta/Facebook). In spite of this critical attention, their commercial applications seem to keep gaining ground in terms of their intrusiveness, pervasiveness, and ubiquity. All the while Google and Facebook amongst others are offering users all-in or all-out options via the consent required for their terms of services, effectively forcing citizens to unwanted data collection in exchange for free media services. The recent firing of two top ethics researchers at Google[3] is the latest example in a series of moves that testify of the gap between administrative and critical interests.

We find the criticism raised towards datafication to be blind towards the modus operandi of media. It is clear that this critique is presented in the public interest and is useful in putting pressure on the industry. However, critique has become a "hermeneutics of suspicion" towards the every moves of an evil, cold, and calculative media industry (see Mathieu, 2015). While the industry may well deserve the attention of critical research, the latter could bring more nuances by incorporating the perspective of media actors. For a problem with critique is that it often offers very little guidance on how to implement criticism other than ending the status quo. Solutions

like creation of an alternative, ending the structure from which datafication arose (e.g., capitalism), or expecting individuals to opt out and turn off their devices are just too unrealistic. Rarely are the solutions offering more tactical and strategic interventions to the existing models.

In short, we could say that big data knowledge produced or relied upon by administrative stakeholders is characterised by a high degree of technological innovation and social experimentation, by uncertainties in the nature of the knowledge relied upon (boyd and Crawford, 2012) and by a lack of awareness about the implications and consequences that datafication brings to society and citizens (Couldry and Meijas, 2019a). Many scholars question the ability of big data to accurately reflect and predict cultural practices (Kennedy, Elgesem, and Miguel, 2015). Instead, data mainly performs a stabilising role for a media industry that is growing estranged from the human side of audiences. Conversely, the critical perspective is in need of situated empirical evidence about the ways datafication affects and impacts media audiences, and its hermeneutics of suspicion could benefit in being challenged by the imperatives and logics that govern media production. There is also a need for a critique to find its way into industry practice, instead of remaining in its ivory tower.

A profound and irreconcilable divide?

Looking back at the gap between the administrative and critical perspectives in audience research, Katz and Katz (2016, p. 8) observed a profound divide:

> *The profound differences that divided them were, first of all, epistemological (How do we know what we claim to know?); second, contextual (What elements should enter the investigation?); and third, ideological (Do we need to question the ulterior motives of those who posed these questions to researchers and respondents?).*

To encapsulate the two knowledge interests and their perspectives on datafication, we propose Table 5.1, which draws a contrast between the epistemological, contextual, and ideological divides that characterise current discussions. We use the logics of ideal-types to show the forces of repulsion that shape the compartmentalisation of audience knowledge in the age of datafication. Both sides are pushing the other away, seeking to abolish the other. Critique often calls to replace the principles at the basis of the administrative tradition, while the latter is busy ignoring the critical position, persistently calling into question its relevance for society at large. But we wonder whether the divide is as profound and irreconcilable as Katz and Katz imply, or simply the product of almost a century of institutional disconnection and opposition.

We argue that, not only are both interests needed, but their integration is needed to make better research and more impactful critique (in the context

Table 5.1 Comparison of administrative and critical knowledge interests in media-related datafication research

	Administrative	*Critical*
Epistemology	Positivist paradigm: data tells the truth about human nature	Critical paradigm: data is amplifying things that are wrong in society
	Methods: quantitative, descriptive statistics, relational analysis, correlations	Methods: qualitative, critical desk research
	Assumptions: behaviouralism, exposure, direct effects	Assumptions: power, social construction, interpretation
Context	Practical, commercial (economic/political)	Academic, societal critique
	Answer to old challenges	Inserted in existing dynamics
	Need to control the audience	Safeguarding audiences from the evils of the global industry
Ideology	Pragmatic – getting the most out of the data that is being collected/logged anyway	Idealistic – rebelling against the global capitalist forces
	Idealistic – serving the society by ensuring that the fourth power reaches more people	Pragmatic – pursuit of academic recognition, and "publish or perish" attitudes

of datafication). Critical knowledge cannot exist on its own, but needs to be made relevant for all actors involved in the realities it criticises. There needs to be a way for critique to be recognised, accepted, and acted upon by actors who may not immediately see the value of it. Similarly, critical scholars also need to consider the complex realities involved by their critique and the impact these make on the processes and practices involved.

Stakeholder collaboration: An approach to bridge productive differences

To fill the gaps left from almost a century of differentiation, distancing, and compartmentalisation, we argue that both groups of stakeholders will benefit from a collaboration that we define in terms of a phenomenological meeting between the two interests. "Phenomenology is an umbrella term encompassing a philosophical movement and a range of research approaches" that emphasise the importance of lived experiences in the functioning of everyday life (Finlay, 2012, p. 173). In communication studies, phenomenology may relate to the experience of otherness, which demands openeness and authenticity in one's meeting with the other. As Craig explains, such meeting requires "that we can and should treat each other as persons (I-Thou) not as things (I-It), and that it is important to acknowledge and respect differences, to learn from others, to seek common

ground, and to avoid polarisation and strategic dishonesty in human relations" (1999, p. 139).

We envision the stakeholder collaboration as a long-term and symmetrical relation between administrative and critical stakeholders regarding the production of knowledge about the datafication of media along principles of joint relevance. Here, we want to emphasise the artificiality of the distinction between administrative and critical stakeholders for the phenomenological meeting, as if the formers were incapable of critique and the latter unwilling to recognise the importance of economic imperatives for their survival. A phenomenological meeting is possible because the administrative knowledge interest can be realised critically and because critique can be done within established social orders. In doing so, the participating stakeholders need to accept, rather than challenge, the validity of the other's point of view. Accordingly, the relation between media and audience, between administrative and critical, and between business/technology and humans becomes collaborative rather than adversarial. Such a phenomenological approach also acknowledges that both industry representatives as well as critical academics also live lives as active audiences, challenging through their own lived experiences the limitations of one-sided knowledge perspectives.

The benefits of systematically collaborating across both interests for administrative stakeholders could be an increased quality, systematicity, and hermeneutic value of big data analysis, a broader and more valid base of knowledge to inform decision-making, and a decrease of the risks and uncertainties associated with datafied practices that are potentially harmful for audiences. From the outset, the benefits for critical academics are an access to the industry-specific data to open it for scrutinisation, resources and know-how of administrative stakeholders, insights into the operating conditions of media, and hence increased relevance of research questions and findings, as well as opportunities to further the interests of audiences amongst the industry.

Going beyond power relations in stakeholder collaboration

Stakeholder collaboration is here conceived as the exchange or co-production of knowledge between critical and administrative stakeholders. We use the label stakeholder as a broader umbrella term for a variety of social actors, individuals, research centres, profit, and non-profit organisations. The stakeholders can origin from the different contexts, carrying different perspectives but at the core of this proposition is the idea that none is by definition more relevant than the other and we seek to have a respectful recognition of different knowledge perspectives.

In the literature on stakeholder collaboration in audience research, the gaps between critical and administrative stakeholders have been analysed in terms of access, discursive differences, and power relations between the

interests at play (Bolin and Bjur, 2014). The relation is often framed as something conflictual, inviting to take sides,[4] pitted in terms of whose vision, administrative or critical, should prevail: for example, a future with or without "surveillance capitalism" (Zuboff, 2020). The pressure created by critical research on the industry can be said to be partly successful in relation to, for example, privacy issues, epitomised in the coming of the GDPR framework in 2018. But we wonder to what extent such critique is really changing the administrative knowledge interest, or whether such a pressure leads to satisfying solutions for both media producers and audiences. Cookie declarations are a case in point: required by the new framework, these declarations were designed by the industry to obfuscate users (Draper and Turow, 2019), who have largely ignored their implications. But as it is becoming easier to reject cookies, users do so en masse, and cookies will soon become obsolete and replaced by other tracking devices.[5]

These power relations are important because they relate to a struggle about the societal relevance and value attached to research, and the use of research to inform public policies, technological development, educational programmes, and research funding priorities. Bolin and Bjur (2014), noting the asymmetries of power in stakeholder collaboration between academia and the industry in audience research, highlight the risk that scholars become the "academic token" of administrative decisions (see also Mathieu et al., 2020).

Instead of problematising the issue of power as central in stakeholder collaboration, we wish to foreground the phenomenological meeting between the two interests. In doing so, we do not deny the reality of power dynamics, but we do not make these the conceptual and analytical anchor from which to define our idea of stakeholder collaboration. We argue that a framing of the relation in terms of power alone is unlikely to change the status quo and possibly contribute to maintaining borders in place or even exacerbating the differences between these two knowledge interests. Instead, we wish to change the status quo by suggesting an integration of these conflicting interests along phenomenological lines of analysis, allowing for an equal meeting between these two interests in which both sides of the divide can gain and be improved. In doing so, we do not pretend to be able to erase, displace, or smoothen power relations. It is not our ambition to change these knowledge interests, and as they are maintained, power struggles are likely to endure.

Approaches to stakeholder collaboration

Attempts to bridge the gaps between critical and administrative knowledge interests already exist. These tend to see the dialectic relation as one between academia and practice, and as such they tend to maintain an asymmetrical relation of power between the two; one in which academia is best positioned to inform practice. In the following, we will briefly review some

selected attempts, but with the aim of learning from them so as to develop a model that allows for a more symmetrical relation and exchange of knowledge between administrative and critical stakeholders.

In a project seeking to bridge the gaps between robot engineers and affected stakeholders, the project group *Responsible Ethical Learning in Robotics* (REELER) suggests the role of *alignment experts* as intermediaries "seeking to align robot makers and affected stakeholders based on empirical knowledge of both" (Sorenson et al., 2019, p. 17). In this suggestion, humanistic researchers are the experts who align the knowledge of robot engineers based on their ethnographic knowledge of users and other stakeholders. This model can be assimilated to the distinction between administrative stakeholders, whose application of big data is often grounded in expertise of data science, and critical stakeholders, who anchor their knowledge in the practices of media audiences. However, as critical stakeholders are not reciprocally being aligned by administrative stakeholders, the REELER model runs the danger of reproducing a power hierarchy in the production of knowledge. REELER's development of alignment tools and training programmes fostering relational responsibility across administrative and critical stakeholders irrespectively sound promising and fruitful. But to this end, it would be important to acknowledge the fact that robot developers/engineers and other relevant administrators are just as much "end users" and "distantly affected stakeholders" in most arenas of their everyday life – and therefore have a stake in humanistic and critical knowledge.

Another interesting approach is offered by what some scholars term *practical theory* (Barge, 2009). Practical theory seeks to develop theory that is *useful* for and *recognisable* to practitioners. "Practical theory is intended to address the problems, dilemmas, and challenges that social actors face in their everyday life and to generate new possibilities for action" (Barge, 2009, Section Approaches to Practical Theory, paragraph 5). Practical theory promotes a meeting between theory and practice meant to encourage (1) a better mapping of an area of research, (2) heighten reflexivity between theorists and practitioners so that each informs the other, and (3) transformations in the practice as a result of theories that "engage and address the interests of research participants" (Barge, 2009). However, in this distinction of practical theory, the role of the different partners is not always clear and can easily remain asymmetrical – in that theory could become a mere servant to a practice, instead of understanding theory as crucial site for developing practice as well.

Finally, another strand of research that promotes a more symmetrical meeting and development of knowledge – one that is more along the lines we wish to suggest in our phenomenological vision of stakeholder collaboration – is the field of *dialogic knowledge production*. Here, a process of dialogue does not necessarily assume that one kind of knowledge is "better" than the other. Dialogue is seen as the medium by which stakeholders put

to work their "productive difference" in the creation of new knowledge (Tsoukas, 2009). Each group of stakeholders is different from the other, and it is by inquiring into their differences that new knowledge emerges. Reaching out to an other provides a means to create distance towards one's own taken-for-granted centre, which is necessary for reflexivity and transformation.

This process can be understood with the help of the concept of "bounded rationality", developed by Herbert Simon (1957) in economics to describe how economic reasoning is subjectively limited. Although Simon defines the concept in terms of cognitive ability and limitation, we can extend its use to understand the bounded rationality of knowledge interests, as systems that limit the perception, identification, and typification of relevant experiences. Each knowledge interest is limiting its range of vision and its ability to incorporate relevant data in the building of its knowledge. As reflexivity – the ability to think about one's practice – is situated within the limited range of relevant experiences (what Schutz, 1970 calls one's "stock of knowledge" or "frame of reference"), it is no surprise if our ability to reflect on our practice becomes similarly limited by the range of experiences that we allow ourselves to perceive. And similarly, as our ability to transform practice is based on our ability to reflect on practice, we can begin to appreciate the importance of collaboration as a way to challenge and expand on our own centre of attention.

Through stakeholder collaboration, each knowledge interest is bringing its own subjective understanding which, combined with the other, can enhance its range of vision and action. As such, the goal of stakeholder collaboration is not to change these knowledge interests, but to recognise the limitation in their attempt to understand (and to articulate processes of) datafication. As the knowledge interests are diverging, such collaborations are often fraught with conflict, in that an agreement on how to act together based on differing knowledge requires negotiation of where to head on the basis of these collaboration. Addressing the underlying epistemological and ideological conflicts will give space to determine and uphold the *joint relevance* of a project (Chimirri, 2015). Or as practice psychologist Erik Axel (2011) puts it: "everybody knows something, nobody knows everything, and neither do we know everything relevant together; therefore, it is constantly possible that we disagree" (p. 76). For example, critical research rarely takes into consideration the modus operandi of datafied media, which in turn makes it difficult to integrate critique into media practice, thereby circumventing potentially relevant and productive conflict across knowledge interests, logics, and experiences.

Productive differences in stakeholder collaboration

Tsoukas relates the productivity of accepting and working with the limitation of specific knowledge and knowledge interests to the ability to

produce new experiential "distinctions", whose creation "is facilitated when knowledge boundaries are crossed" (2009, pp. 941–942). The collaboration is conceptualised as the occasion for stakeholders to "assimilate mutually experienced strangeness" (ibid., p. 949). Such assimilation, according to Tsoukas, occurs through three processes of conceptual transformation made possible by the meeting of productive differences: (1) conceptual combination, (2) conceptual expansion, and (3) conceptual reframing. "Through these three processes of conceptual change, new distinctions are made, which, when intersubjectively accepted, constitute new knowledge" (ibid.).

Conceptual combination provides new knowledge when "a new concept [is] generated by combining two or more existing concepts" (ibid., p. 946). Without wanting to preclude the empirical outcomes of actual stakeholder collaborations, we can understand this form of new knowledge production as a process of combination arising from the productive differences of each stakeholder; that is, a combination of the differences expressed in each column of Table 5.2. In this second table, we suggest different concepts that encapsulate the areas of expertise and blind spots of each stakeholder community's knowledge, which could be used to combine their productive differences. For the purpose of providing an example, we could imagine a new concept called "contextual evidence" arising from the productive differences of each stakeholder.

Table 5.2 Productive differences in administrative and critical knowledge

	Administrative		*Critical*
Epistemology	Validity issues	**Conceptual transformation**	Contextual interpretation
	Overwhelming quantity of data		Relevance and issue driven
	Digital traces and metrics to know the audience		Observation and conversation to know the audience
	Opacity due to copyrights and legal challenges and technical specification of data processing		Transparency
Context	Behavioural measures		Reflexivity of audience
	Actionable correlation		Interpretative in-depth causation via contextualisation
Ideology	Control the audience		Protect the audience

New knowledge can also be produced through the means of conceptual expansion, that is, when a concept is extended beyond its normal use to apply to a new situation (Tsoukas, 2009, p. 947): "New distinctions may arise through analogically mapping a relation (or system of relations) obtaining in the source domain to the target domain and, therefore, drawing inferences about something unknown (target) from something known (source)" (ibid.). Here, we could imagine – again more for the purpose of illustration than for predicting the outcome of an actual collaboration – how the concept of audience agency could be brought into the realm of design engineering or audience metrics to create a new concept: "agentic co-design".

Finally, new distinctions can also arise through the reframing of existing concepts. "Reframing means reclassifying an object, or at least shifting emphasis from one class membership to another, so that a new view of it emerges" (ibid.). In critical research, different metaphors are invoked in order to provide critique of datafication. The metaphors of "colonisation" (Couldry and Meijas, 2019a) or "data as the new oil" have been used to describe the datafication of society, but they are eminently pejorative in their evocation of violence or pollution. Could these metaphors be reframed in a way that is more recognisable for administrative stakeholders? We could imagine that the substance of the critique needs not change, but its reframing could provide a more relevant opportunity for its appropriation by administrative stakeholders.

While we remain reluctant to preempitvely outline what concrete new knowledge could emerge from productive differences, that is, where "joint relevance" (Chimirri, 2015, p. 36) across knowledge interests can empirically emerge and be negotiated, we can offer a few speculative ideas. We imagine that ideological positions from administrative and critical research could meet in the idea of empowering audiences. For instance, the data collected about audiences can be made transparent and fed back to people could inspire a formative learning experience that teaches audiences what data are being collected, and how decisions are made based on it (Mathieu and Pruulmann-Vengerfeldt, 2020). Engaging critical researchers in implementing administrative data collection or decision-making practices supports ethical reflections around the limitations and pitfalls of the data collection, inviting consideration and care for the audiences. At the same time, the more administrative researchers share their concerns related to studying audiences, the more empowering decisions can be made as the media products born from collaboration often play a valuable part in the development of public space.

Conclusion

The suggestions that are spelled out in this chapter aim to answer the volume's call for innovation in knowledge production. But we wish to go

beyond sporadically funded interdisciplinary research projects, beyond an additive mix of methods, and beyond the argument that collaboration itself is a box to tick on impact checklists. What we suggest goes beyond the meeting of specialised disciplines, towards a more in-depth and long-term solution to a problem that has characterised media studies from its early days. We are not simply advocating more collaboration between opposing stakeholders, but a transformative collaboration that seeks to produce new knowledge about media audiences.

In this chapter, the knowledge divide in studies of datafied media served as a paradigmatic case for discussing gaps between critical and administrative perspectives on the relevance and practice of knowledge creation. There are many signs that this gap is untenable and unproductive for the development of our societies in which data is asked to play a crucial role. We suggested a collaboration between stakeholders answering to these two knowledge interests; a collaboration based on a phenomenological perspective in which the "productive differences" of each interest are seen as fruitful for the development of knowledge on datafication and related technological transformations. The collaboration also entails acknowledging and recognising the sources of intellectual and ideological conflicts within the collaborations and seeking to understand the lived experiences of the other to overcome the adversary positions.

This chapter outlined different ideas for how to think and organise stakeholder collaboration – alignment experts, practice theory, joint relevance, and bounded rationalities – that can be used to guide practitioners interested in engaging into collaboration between business and humanities. We encourage scholars interested in collaboration to consider the transformative potential of collaboration, not only as a way to change the other – be it business, industry, technology, and media – but also a way to challenge our own humanistic understanding.

Scholars interested in engaging into a stakeholder collaboration with the industry, regardless of the sector they operate, can draw on our discussion of the distinction between administrative and critical knowledge interests in a number of ways. Our discussion can be especially useful when the relation between business and academia is understood as adversarial. Here, we invite scholars to consider collaboration along a phenomenological perspective, rather than as something organised along power relations. We believe this requires long-term collaboration in which stakeholders from both camps can learn from one another and develop knowledge jointly. In this process, we recommend to explicitly map differences as well as possibilities for conceptual integration as a way to produce a joint road map for the collaboration. The dialogic model entails to think the stakeholder collaboration purposefully and in the long term, rather than as an organic and punctual process, which in adversarial situations is more likely to be driven by power relations where the "other" is approached with suspicion.

In fact, rethinking the adversarial relation between business and humanities – which we explored as a distinction between administrative and critical knowledge interests – made us realise that critical research is not always adequately representing the human perspective treasured in the humanities. Therefore, we should be wary of defining the humanistic project solely in terms of critical research, but would rather rest it on a collaborative project to understand the other.

Notes

1 Habermas (1968/1972) makes a similar distinction but uses the expressions technical and critical, to which he adds a hermeneutic interest.
2 Apparently, an expression invented by Clive Humby, according to The Guardian (https://www.theguardian.com/technology/2013/aug/23/tech-giants-data accessed on 26 August 2021), but see also Rotella, P. (2012). "Is data the new oil?" *Forbes*, accessed at https://www.forbes.com/sites/perryrotella/2012/04/02/is-data-the-new-oil/?sh=260609747db3 on 26 August 2021.
3 https://www.theverge.com/2021/4/13/22370158/google-ai-ethics-timnit-gebru-margaret-mitchell-firing-reputation, accessed 3 June 2021.
4 Echoing Martin Barker's keynote at the TATS COST conference in Ljubljana (2014) entitled "Whose Side Are We On?"
5 https://theconversation.com/googles-scrapping-third-party-cookies-but-invasive-targeted-advertising-will-live-on-156530

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6 Making difference: An enquiry into what happens when an architect company acquires humanistic knowledge as a competitive business strategy

Mark Vacher

"Something truly different"

In 2015, the Danish urban developer and investment firm NREP launched an architect competition to develop a new design concept for student housing: Studiebolig 2.0. The call invited competing teams to submit architectural principles adjustable to different urban environments.

With the explicit ambition to deliver a proposal beyond the usual, Henning Larsen Architects (HLA) invited the author to join their competition team. The idea was, according to the project manager, to develop a design concept based on "anthropology rather than cool-looking architectural renderings". "We could have proposed 3 standard solutions", he said, "but we want to try something truly different".

In the following, I will explore the attempts to meet this request. The case represents the earliest phase of a project that ended up winning the mentioned competition. From the focus group interview described later to the opening of the first UMEUS student co-living community in November 2021, six years of research, design, and construction have passed. What I present here is not the entire process but by zooming in on the very beginning, my hope is to provide a view into the conditions under which humanistic knowledge came to play a central role in kicking off the architectural design process.[1]

Academic insights constituted the means and not the ends of the collaboration. I was hired not as a researcher but as a consultant expected to provide my academic expertise as an operational contribution to architectural practice. Thus, the collaboration was set up by the architect firm as a one-way transfer of knowledge.

In this way, my task differed from the fields of consumer research (Sunderland and Denny, 2007), corporate ethnography (Cefkin, 2009), and anthropological design studies (Krause-Jensen, 2013). It was not to understand or explore a process but to be the catalyst that sparked one.

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Taking on the challenge of becoming a catalyst, raises a line of questions: How do I make a difference, what is it different from, and maybe most importantly, how do I make sure it is handed over and recognised?

Answers to these questions are provided by a wide range of literature on stakeholder analysis (Jensen, 2007), project management (Lock, 2007, Pacanowsky, 1995), and project presentation (O'Dell, 2017). But, as I shall demonstrate, despite the intention to provide clear guidelines and transparency, change in this project was sparked less by deliberate transferring or translation of knowledge from one discipline to another, but more by the experience of not being able to do so. In fact, entering the role of a change-making consultant exposed to me that my epistemology and that of the architects were not only different but to some degree also incompatible. In other words, confusion and misunderstanding were prevalent factors I had to navigate as a hired agent of change.

Rather than perceiving such epistemological obstacles to knowledge transfer as failures to implement the mentioned tools and strategies, I will draw on philosopher Jean-Francois Lyotard's notions of *phrase* and *differend* as developed in his book *The Differend: Phrases in Dispute* (1988).

Lyotard sees language as a totality of acts of articulation, what he calls *phrases*, made with the intent to produce, prevent, and control change (Ibid., p. 95).

In order to work as intended, the meaning of phrases have to be shared by their addressors as well as their addressees. If not, language cannot serve its purpose. Like when agents involving in exchange speak different languages, for example, Danish and English, and confusion arises due to lack of a shared vocabulary. Mostly, this is easily detected and can be mediated via translation (what's the word in English?). What is less evident, says Lyotard, is what happens when words sounding the same mean something different. Then what is at stake is not form but meaning. In other words, what words can say. To conceptualise this challenge, Lyotard evokes the difference between the words different and *differend*.

When phrased, different and *differend* sound the same but, as he unfolds in the book, the implications of mistaking one for the other may have the consequence of not only misunderstanding the phrase but also ignorance of the changes the phrase is intended to produce, prevent, and control (ibid., p. 12).[2]

Hence, Lyotard presents a way to conceptualise some of the challenges I came to face as a consultant from the humanities.

The aim of the following is not to provide a consultant's guide (Nørmark, 2016) or template to being a catalyst of change (Madsbjerg, 2014), but to examine confusion and misunderstandings as inherent but potentially productive conditions of change.

But before I get to confusion and misunderstandings, I will begin by accounting for how I established a position for myself on the HLA team.

How will I be different?

When asked about what made anthropology seem "truly different", the project manager in charge of the competition team explained that architects have a tendency to design student housing from old assumptions regarding what it means to be young. Being young today, he argued, is different from what it was like 30, 20, or even just 10 years ago.

"How do you know that being young is different today?" I asked. "If you take my daughter as an example", he replied, "she is much more concerned about her privacy and with having her own space than my generation was – and she is not the only one. I have a feeling that it is a general trend but as an anthropologist you can probably tell me".

There are anthropologists who specialise in trends,[3] but I am not one of them, I explained to the project manager, and neither are trends part of my analytical vocabulary. Instead, I called for a reflexive detachment from preconceived assumptions – not least those deriving from being parents or "former students", which are categories not only the project manager and I fell into but also several of the other team members.

My aim was to provide the team with a new way of looking at student housing. This, I proposed, could be achieved by engaging in an empirical study including those to whom the designing of student housing would matter the most.

If we invited students to explain to us how they experience student life in student housing, they could, provide us with new perspectives on what we were setting out to design. Thus, I argued, the students could help us improve our chances to develop a proposal without unknowingly re-producing old assumptions.

Hence, my recommendation was to start as basic as possible by asking students: **"What is student life to students living in student housing?"**

By making this question our point of departure, we would clearly state who we as a team identified as possessing up-to-date knowledge, whose practices are important to understand, and what kind of life future student housing should aim at accommodating. Surely, the students of the present are not the intended end users of Studiebolig 2.0., but their experiences and practices would be the closest we could get.

With a clear identification of students as central stakeholders and authorities on student life, I was confident that we had laid a solid foundation for a competitive design.

This, we agreed, could turn out to be a productive starting point for approaching a phenomenon already embedded in anecdotes and cultural assumptions in a "truly different way".

Here is how we do it!

Having set the terms with the project manager, I was put in charge of developing a methodology for the study. **Step one** was to invite students to

HLA for a focus group interview. My goal for facilitating a discussion among students at HLA was threefold: firstly, to let them tell us about student life in student housing in their own terms; secondly, to have them discuss, contest, and sharpen those terms with each other (Fallon and Brown, 2002); and thirdly, to ensure transparency and a transfer of insights to the HLA team by having the latter being present at the event. This approach was accepted with enthusiasm by the team.

Step two was to produce a manual for the interview.

What I hoped the focus group interview would generate was an understanding of what, according to philosopher Henri Lefebvre, constitutes lived student space. Lived space, Lefebvre argues, is always of the present and always produced. It is the outcome of our actions, perceptions, and intentions. Being lived, he says, space emerges in activities and not the other way around (Lefebvre, 1991, 93ff). In other words, space is never separate from time; it unfolds and is therefore always temporal. Thus, space cannot be reduced to matters of where or what but always also implies how, when, and who? In this sense, students are producers of student space when they interact, study, and live as students.

This perspective informed my strategy for interviewing. By pursuing how, when, and with whom student life was taking place I would approach students as producers of student space. On the one hand, this would differ from the production of renderings and standard solutions mentioned by the project manager. On the other hand, it would focus on what students and architects have in common, namely production of space.

Students on display – Activating the different

The project manager put the company intern who was a student herself in charge of recruiting students for the focus group interview. On the day of the interview, four university students from four student dormitories showed up at the architect firm.

For the interview, we had booked the company's most impressive meeting room. The students and I took seats around the large conference table while the six architects from the team sat in a circle around us, ready to take notes.

For me, this was an opportunity to set a stage for the architects to see anthropology at work. After a brief round of introductions, I laid out the purpose of the focus group interview: To help us, the architect team, understand student life in order to develop a new approach to designing student housing.

Surrounded by architects with open notebooks, the students generously shared experiences and pointed out relevant topics related to student life. They spoke in detail and gave examples of how student life took place and manifested itself in events, in individual performances, and in collective activities. How it organised days, weeks, and years and how it was organised

in and by classes, homework, semesters, and vacations. They described student life as driven by exams and tests. These are critical milestones all students have to reach in order to proceed to the following courses and ultimately, to obtain their degree. Failing to pass those individual milestones, they explained, would not only cause unwanted delay, but could also lead to personal crisis and even dropping out.

Relating to this, they emphasised navigation between private life and being part of a group as particularly important. While getting an education was considered a personal and individual choice, the overall motivation for choosing a student home over other types of housing was to become part of a community. A well-functioning community, they explained, will support you and enable you to cope with exam stress and loneliness.

Regarding social life, the reputation of their respective dormitories became a topic of discussion. They highlighted some dormitories as being social and well-functioning communities, and criticised others for failing in this regard. According to one student, his dormitory was able to meet all his needs concerning social life: "I sometimes realise that I haven't been out for days!!"

Although participation in parties, communal dining, sports, student committees, etc., are ways to cope with the demanding individual obligations permeating student life, there is a limit, the students pointed out, to how much time and energy can be devoted to such activities. As one student put it: "Most days you cannot cook together or hang out all evening. Most meals you cook on your own, next to your neighbour who cooks on her own. It's kind of silly, but sometimes we are 3 people cooking our separate meals at the same time".

The option to withdraw from social activities, they argued, is crucial for fulfilling their obligations as university students. In a welcoming community, it can be very tempting to hang out and be social but at the end of the day, they reasoned, there are still individual deadlines to meet, homework to do, and preparations to make.

"So now what?"

After the interview, the team had scheduled an hour to compare notes and discuss findings. During the session, I had been busy moderating so my notes were relatively scarce. Nevertheless, I felt confident that my teammates had plenty of insights to share. In ethnographic terms, the students' accounts were both "thick and rich" representations of lived student life presented in their own words and from their own perspectives (Geertz, 1973, 3ff). My goal had been to deliver something "different" to the architects and, based on the lively discussion amongst the students, I had no doubt that I had successfully accomplished my task.

This, however, turned out not to be the case. As the last student left the meeting room, the project manager turned to me and asked, "So now what?"

"Now we share findings, we look for patterns, and then you design. I'm sure we have plenty of good stuff to work with", I replied.

"Apart from confirming that they like to hang out in their shared kitchens but complain about having to do their homework, what else do we have to work with?", the project manager asked.

No one from the team said anything.

When I furthermore noticed blank pages in their open notebooks and sketchpads, I began to feel a sting of panic. No words, no drawings, no data from what was supposed to be the ethnographic data collection. In that moment, my satisfaction from having conducted what I thought was a rich focus group interview turned into consternation. How could they not see the value in all the examples and the students' reflections? At this moment, I realised that the architects had not received what they expected from me.

As described earlier, my intention had been to deliver something different for the architects to incorporate in their design. "Different", in this case, meant *making* a positive difference to the architects and thereby enabling them to improve the outcome of their work.

What I had facilitated was arguably different from architecture, but when it came to making a difference, it did not have the intended effect.

To make a difference, the different has to move and alter. In other words, it has to spark change. According to Lyotard, this is a key function of language. When we name, call out, question, or explain, we are doing so with intent to initiate, modify, or control action. Drawing on Austrian philosopher Ludwig Wittgenstein, he proposes the notion of the *phrase* as a way to address the acting force of language. A phrase is what happens whenever language is invoked. In fact, Lyotard states, language is the act of phrasing (ibid., pp. xi, xii). Hence, it was through the act of phrasing a research strategy I positioned myself as an agent of difference, through the phrasing of invitations students were summoned, and through the phrasing of research questions and answers the exploration of student life was carried out.

A phrase, however, is not an autonomous object to be exchanged between different parties; it is constituted according to a set of rules and specific relationships (ibid., pp. xii, 21). A phrase, he says, thus presents not only an intended action but also its addressor (the person intending to act) as well as its addressee (the person intended to react) (ibid., p. 18).

For the latter to understand the intention phrased by the former, they have to share what he calls the *regimen* of the phrase. The regimen is the universe put forward by a phrase and the reference to which it makes sense (Lyotard, p. 39). As long as different phrases refer to a shared regimen, they can unfold different positions and enable negotiation and exchange. In other words, within a shared regimen, we can agree to disagree, we can explore the nature of our disagreement, and we can substitute phrases with others (including translating between languages) in order to refine, provoke, and clarify.

This, however, was not what the project manager asked me to do. He did not ask for translations or alternative ways to express what had been phrased during the focus group interview. What he questioned was if anything different from what he already knew had been phrased at all. Nevertheless, elaborating and finding new ways to phrase what had happened was what I did. The team members were the intended addressees of the difference I was hoping to make, and I saw no other option than to try to explain that something had happened.

In the following section, I will share my attempt to account for the outcome of the focus group interview. As it will be evident, it was incoherent and not very successful to say the least.

Explaining it all and saying nothing

Over the next hour, I did my best to explain, elaborate, and emphasise what had been phrased during the interview. I pointed out interesting topics and themes raised by the students. How the dormitory's reputation matters and how it depends on a strong sense of community. How student life is a matter of being part of and investing in such a community while dealing with personal expectations and obligations. How time is organised according to specific deadlines. How student life implies expected progression from matriculation to graduation, and how this trajectory can cause stress, personal failure, and disappointment.

When, to my annoyance, my observations did not spark any response, I tried to emphasise the theoretical depths and the analytical potentials of our approach. I mentioned Lefebvre's understanding of space, how he sees it as unfolding and as being socially produced, and I tried to remind them of the phenomenological arguments regarding the foundational importance of the students' perspectives. Yet still no one in the room seemed to have anything to say.

As my frustration grew, I turned from what I had considered relevant theory to what I later have come to think of as "The Greatest Hits of Social Science". From my experience with teaching first-year students, I knew that the work of sociologist Erving Goffman provides an appealing framework for analysing individuals in relation to communities. Put simply, using the theatre as metaphor, Goffman describes social life as a matter of taking on certain roles. Who you are in relation to others, he argues, depends on your ability to meet and interpret expectations of these others and on how you manage to convince them as the audience to your performance (Goffman, 1990, 1956).

In the context of student housing, thinking of the social as a stage on which to perform can make not only classroom attendance, oral exams, and graduation but also cooking, hanging out, and partying in the shared kitchens appear as theatrical front-stage events.

As an actor in a theatre play needs a place to put on their costume and makeup, I explained, so does the social actor. According to Goffman, both require an undisturbed private back stage where they can prepare their appearance. This back stage must be separated from the front stage of social life. If not, it might jeopardise the credibility of the performance. This also applies to performing as a student. Being the place to do their homework and to rest, makes the private room a foundational back stage for student life. In Goffman's terms, to perform well in public, to be successfully part of a student community, requires a safe back stage.

By referring to Goffman, I managed to present an analysis on the spot, which nuanced and elaborated the project manager's observation that students like to hang out in their kitchens and complain about homework. My hope was that introducing the architects to a more accessible perspective would prove that I had something valuable to say about student life.

However, compared to Lefebvre's approach, Goffman focuses less on the production of space. Doing much of his research in "total institutions" such as asylums, hospitals, and prisons, space in Goffman's work to a wide extent appears as a matter of confinement and as sharply divided zones in which individuals interact according to clearly defined categories (Goffman, 1961).

Presenting student housing as a theatre with sharply divided zones and performances was thus not only rigid but also in almost contradiction to the students' description of community. Even if one of them had described his dormitory as a place he rarely left, none of the students spoke of living in confinement, playing roles before an audience, or dividing their lives into front and back stages. Community, they had expressed, is something to enter, to become part of, and to be absorbed by. It is not a stage or a zone but can enter private rooms in the shape of visitors or be held in abeyance even when using shared facilities amongst fellow students, as when three students are cooking meals separately at the same time in the same kitchen.

Thus, in my eagerness to perform simple and conveyable social science, I found myself presenting an image of student life I myself did not recognise. Therefore, before the architects had any chance to comment on my analysis, I ended my thinking aloud by introducing yet another approach.

I stated that according to philosopher Gilles Deleuze, life is more complex and entangled than a theatre play and that space should be understood as folded rather than divided. What we experience as thresholds and borders, Deleuze argues, are not points or isolated instances. They are, he claims, events through which passage is granted or rejected. Whenever tangents[4] meet, he says, "it is not exactly a point but a place, a position, a site, 'a linear focus', a line emanating from lines" (Deleuze, 2010, p. 20). Thinking in terms of movement, a secluded room is not an autonomous

space but rather an emergence produced by the envelopment of a moving body encircling it in a fold by entering and leaving (ibid, p. 24).

Even if Deleuze's theory is complicated, I did not explain it to the architects. At this point, I was giving up on conveying further insights to an audience I felt I could not reach.

The last thing I did before sitting down was to draw a fold on the whiteboard ⟆. I did not expect a simple drawing to capture or summarise what I had been trying to say but at least, I thought, it was something tangible to leave behind.

Without further comments, the project manager suggested that we stop for the day. The plan was to come back the next morning and work on design concepts.

All the same again

In the evening, I contemplated my frustrations about not being able to convey the importance of what I considered a well-conducted focus group interview. Not only had I been unable to make the team see the students' accounts as valuable, I had also been inconsistent and contradictory in my analysis. By presenting the material as a theatrical performance, I had abandoned trying to approach student life from a student point of view. I had tried to soften the theatre metaphors by superficially introducing the notion of the fold, but as readers familiar with Deleuze's work will know, his thinking represents an explicit attempt to counter granting of cognitive privilege to specific "points" including "points of view" (Deleuze, 2010, p. 15). In other words, by introducing the fold, I was contradicting both my alternative analysis and the importance of the student's points of view I had so eagerly promoted.

Despite my efforts to provide a consistent and operational analysis, my feeling was that all I had left the team was inconsistent fragments. Nevertheless, nobody questioned my account, nobody countered my arguments, and nobody pointed out the obvious inconsistencies in my analysis.

As I have tried to convey, I was not silenced, I was not ignored, and I was not treated disrespectfully. On the contrary, I was granted both time to explain and room to speak until I ran out of things to say.

Thinking through the day's events, including the silence following my attempts to hand over ethnographic insights, did not bring me any comfort regarding the relevance of my contribution to the team. Nor did it provide me with any new perspectives on how to convey my findings to them. I saw no other option than to go back and try to piece together the fragments by elaborating, repeating, and explaining again.

This experience of not being able to convey what feels obvious and important resonates with Lyotard's notion of the *differend*.

As already mentioned, for a phrase to convey its meaning, the addressor and the addressee of the phrase have to share the same regimen. If they do not, Lyotard argues, the phrase is unable to convey the meaning intended by the addressor and hence unable to invite the intended reaction from the addressee. Then instead of sparking exchange, the addressor and the addressee are mutually excluded from each other's framework for making sense of events. Instead they risk getting caught in the unstable state and instant of language, which he calls differend (ibid., p. 22). To the differend, he states, "something 'asks' to be put into phrases, and suffers from the wrong of not being able to be put into phrases the right way" (ibid., p. 23).

According to Lyotard, the absence of shared rules makes the differend unable to make its intended difference. Lacking a shared definition, he argues, "we will never know what we are talking about, or if we are talking about the same thing" (Lyotard, p. 108).

Following Lyotard, the absent response to my presentation could indicate that no shared regimen was in place to capture the intentions put forward not only by me but also by the students in the focus group.

This, however, is not to say that the architects did not share a regimen or that my phrases did not reach their addressees. As it would turn out, they had a regimen of their own and in that regimen, my phrases were taking on a different meaning.

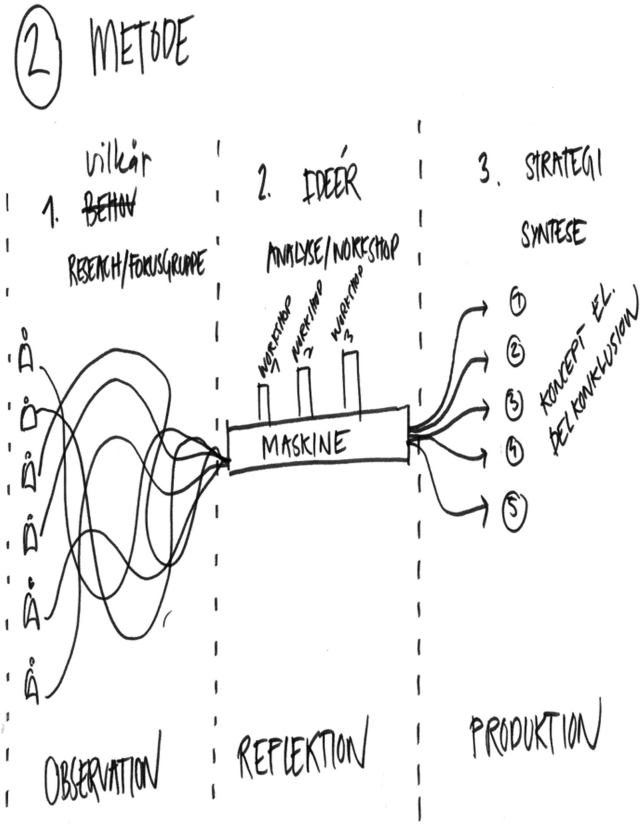
"It reminds me of Rem Koolhas"

The next morning, I went early to HLA. I thought I would be the first person to arrive but there was already someone else in the meeting room. One of the architects was busy putting up hand-written posters. She had, she told me, spent her evening listening through the recording of the interview and had tried to summarise the outcome of yesterday's activities.

When the rest of the team had gathered, the architect began to explain the posters pinned up on the wall. As her presentation revealed, there was clearly a regimen at play that enabled her not only to organise what she had observed but also to develop a strategy for moving forwards.

How to solve our task was the topic of the poster **"Approach".** It stated as follows, "Method: Start with the users; Analysis: Find out how student life is something special; Strategy: Before starting any architectural and site specific work, we must first develop a scalable and flexible strategic concept".

As an appendix to this poster, she had added the following illustration[5] depicting a machine with three chimneys labelled workshop 1, 2, and 3:



The machine, she explained, was supposed to illustrate the processing of data (categorised as "reflection") from the focus group interview (categorised as "observation") into strategic concepts (categorised as "production").

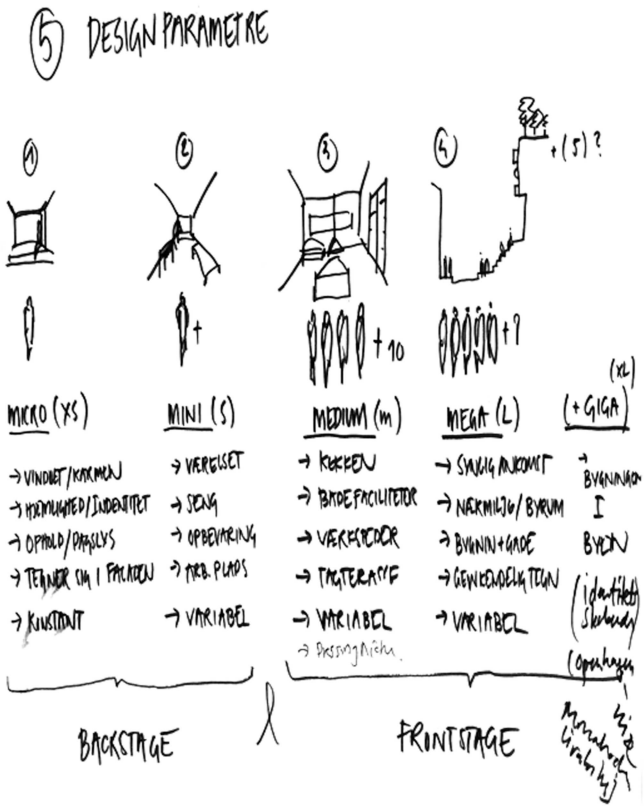
The architect then moved on to a poster labelled **"Workshop One – catalogue of ideas and analysis",** which listed the following bullet points:

- Temporality, time, transition, rhythm
- 'Before-during-after'
- Home: To leave traces
- The city vs. the collegium – What can the collegium add to the city?
- Community/negotiations/social resources
- Identity/rénomme
- Facilitate different categories of meeting
- The building: An icon/a sign/a point of orientation

This, she explained, was an open list of ideas for processing findings from the focus group interview.

At first glance, the trajectory she laid out for the design process did indeed seem clear and operational. Not only had she formulated questions addressing what to do next but also suggestions for how to do it which even included a machine. However, the problem, from my perspective, was that although the posters mentioned a tool, findings, and ideas, they did not account for how to operate the machine and what made the listed words findings and ideas. Thus, I could not see a connection between the bullet points and the suggested next steps.

The first posters she had more or less read aloud, but when she reached the next poster labelled **"Design parameters"**, she turned her attention to me and said, "What you talked about yesterday, reminded me of a lecture I attended on Rem Koolhas. I have tried to organise the material according to his approach[6]".



As shown in the preceding figure, this poster included drawings ordered on a scale from micro over mini, medium, mega to giga+, and the words "front stage" and "back stage" divided by my depiction of a fold.

This reception of my presentation came as a surprise to me. On the poster, the students appeared as ghostlike figures representing numeric values 1 for micro, 1+ for mini, +10 for medium, and +? for mega. Below these, furniture, rooms, buildings, and urban spaces were listed according to the mentioned scale. My intention had been to present student life as perceived by students. The poster, as I saw it, did not mention any student actions or activities. The only reference to action were arrows pointing from smaller to larger between the different indications of scale.

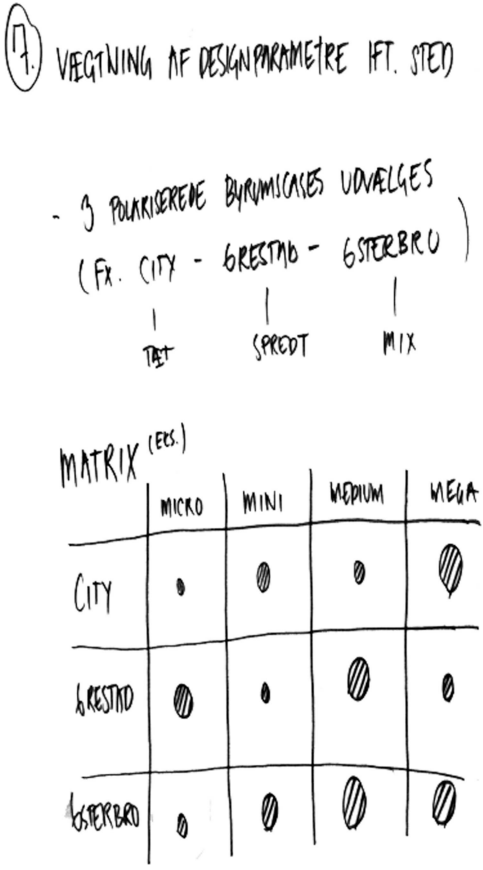
Apparently, the connection between the poster and me was to be found in the work of Rem Koolhas. I found it hard to see how my presentation the day before resonated with Rem Koolhas' ordering of material. In the book, *s, m, l, xl*, Koolhas and his team of co-authors organise diverse material ranging from photocopies, essays, blurred pictures, pornography, sketches, and drawings to alphabetically ordered concepts along the scale indicated by the title. In other words, what in my perspective appears from Rem Koolhas' approach is an order developed and installed not by a given target group but by the master architect Rem Koolhas.

Finally, I was troubled by the depiction of the fold. On the poster, the fold appeared as an isolated symbol placed in a gap separating small-scale indications categorised as "back stage" from larger ones categorised as "front stage". Rather than folding, connecting, and bending, the inserted fold seemed more like a barrier or a fence between separate entities.

After having organised the work done so far, she then turned to the intended outcome of the workshop–machine processing. This was outlined on the poster **"Concept/strategy"**, which stated: "The concept/strategy is to be unfolded in drawings and text. Drawings: what scale/how detailed? They should be drawn in two ways: a) seen from the outside (e.g., cross-section) b) seen from the inside (e.g., serial vision). Three different window frame typologies will be suggested (e.g., intimate, lined, integrated) + how they stand out as a significant element in the façade".

This poster left me confused. What was the concept and strategy, how could she know what to draw, why in two ways, and why suggest three window frame typologies?

She moved on to present the theme of the poster, **"Weighting of design parameters according to location".** It took the form of the diagram below, suggesting "three polarized cases of urban space to be chosen (e.g., city/dense, Ørestad/scattered, Østerbro/mix)".



In the diagram, the scale presented earlier was paired with different locations. I could clearly see the inspiration from Koolhas, but as a representation of my own approach, it only added to my feeling of being misunderstood. Here, all traces of students, their actions, and the spaces in which they occurred had turned into dots confined in a matrix. Thus, the presented approach to space could hardly differ more from Lefebvre's understanding of space as being ongoing and socially produced.

"Summary", the last poster she presented, raised a question "Strategy/concept: What do you get if you choose us?" and made a suggestion, "Maybe *one* drawing summarising the entire concept (e.g., sequentially)".

Overall, the presentation was well structured and the design of posters very impressive but to my concern, I had no idea what would be the answer to the question: What do you get if you choose us?

Seeing the difference

Nonetheless, something had started to change. At first glance, it seemed that the students and my analytical concepts had found a new home in

bullet points, drawings, and diagrams. However, when comparing our presentations, it was obvious that we had different approaches to students and student homes. What I also came to realise was that what differed was not only our approaches but also what we were trying to approach. The students and student homes in the architectural posters are not comparable to the ones participating in the anthropological enquiry.

The ghostlike figures on the architect poster were not actually ghosts, but rather "unborn" students of the future. Their lives and the spaces their actions will produce are yet to come. They are to grow from the machine, the matrix, and the arrows presented on the posters. In this approach, anthropology is supposed to adjust the machine (workshop 1, 2, 3), provide variables for the matrix (what is micro, mini, medium, mega, and giga+?), and to set the direction of the arrows towards the realisation of a not-yet-realised world.

In the anthropological enquiry, the students were those present at HLA and the student homes we discussed were their actual dwellings. The questions asked during the interview concerned the lives they were leading and the places they lived. This is not to say that they were not theoretically informed, but there are in neither the questions nor the answers any notions of variables or machines – only variations and personal journeys.

The students present in the architectural presentation on the other hand do not live student lives or study. Their purpose is to illustrate scale, prescriptive ideas, and projections. Unlike the students at the interview, they are not subject to but part of an architectural vocabulary.

Because they belong to different regimens, the two kinds of students cannot substitute each other (Lyotard, p. 78). In translation, the aim is to say the same in different languages. In this case, however, we were saying something different by saying the same. "Students", "student life", "student housing", and "the fold" are the same words when phrased by the architect and the anthropologist but what they refer to is something completely different.

"I find it hard to see"

It was especially the architect's attempt to include my presentation in her own that made it clear to me what in my approach had failed to come across.

In the discussion following the poster presentation, I decided to raise my concerns regarding the absence of students and what I felt was a misconception of the Deleuzian fold.

First, I summarised my idea behind involving the students, which was to approach student life through the perspectives of students. Then, I repeated the point regarding Deleuze's notion of the fold as being not a division or zoning but an envelopment of space. I ended my response by saying: "I am

afraid that I find it hard to see the students' perspective or a folding of space in your presentation".

Instead of awkward silence, this time, my comments sparked a vivid discussion. The architects too were missing the students and, furthermore, they found it difficult to operationalise the anthropological insights regarding spatiality. How could we get students into the design? What could a folding of space be in architectural terms? What actions or activities would transition scale and what would the spatial implications of such transitions be?

During this discussion, we developed what became a core design principle in our proposal: The display of student life. Since missing the students was a shared concern, we agreed to make it our main ambition to make them appear in the design. When students move through and occupy space, they envelop it by engaging in activities recognisable as student life. In our proposal, we argued that seeing students engage in student activities was key to articulating student life as a community for not only its potential members but also the surrounding society. We designed transparent meeting rooms for study groups, reading rooms visible from the outside through a glass facade, and a café open to the public. As a main feature, we designed the windowsill in the students' private rooms as a seating area with ideal conditions for reading and writing. By optimising the study facilities at the spot where the most private meets the most public, we argued, the building became visible from the outside as a place where students live and work. As a spectator, one can see others working together and on their own. Those who live here study and have studying in common.

In this way, the windowsill was conceived not as a boundary but as an exhibition of space being enveloped by the folding activity of doing homework (cf. Deleuze). This, along with other folding movements on display, produces a conflation of micro and giga+ or back stages and front stages (cf. Koolhas/cf. Goffman) in which student life is encouraged to be lived (cf. Lefebvre) while potentially being perceived by fellow students and the public.

In our proposal, we emphasised movement and time as significant conditions for the appearance of space. To exemplify, we included ethnographic quotes from our focus group interview and in detailed architectural drawings and diagrams, we illustrated how putting student life in various activities on display could be a successful design strategy for Studiebolig 2.0.

The difference I made

According to Lyotard, every phrase represents and refers to a regimen. When a phrase goes beyond its regimen, it either phrases nothing or if it gets adopted by a different regimen, it may phrase something different and

thus becomes a different phrase. Thus, Lyotard argues, differends are born at encounters from different regimens (ibid., p. 40).

In our development of Studiebolig 2.0, at least two heterogeneous regimens were phrased regarding difference.

The first was the phrasing of difference as anthropology. Within this regimen, anthropological performances and practices (e.g., the focus group interview) were phrased as *"truly different"* from architectural ones.

However, a second regimen was encountered when phrasing turned towards the outcome of the attempt at something different. This became evident in the project manager's evaluation of the focus group interview: *"So now what? What do we have to work with?"* In these two phrases, he not only questioned what difference the focus groups interview had made but if any difference had been made at all.

The gap exposed by my inability to answer the project manager's questions became an invitation for someone else to make sense of what had been said and done. Phrases are only phrases when they represent a regimen. Whenever a regimen can make itself represented by a phrase, it is thereby claiming it as its own. This became evident in the architectural posters and in the phrase, "it reminds me of Rem Koolhas' approach".

In the process of adoption, the phrase undergoes a change. Recognised as belonging to and representing a new regimen, prior differences between the phrase and this new regimen must be eradicated or suppressed. As she was "being reminded", what the adopted phrases brought forth to the architect was not difference but something familiar. Thus, in this phrasing, anthropology was not different but accommodated and domesticated as meaningfully similar to (Rem Koolhas') architecture.

This brings me to my comment *"I find it hard to see the students perspective or a folding of space in your presentation"*.

Unlike the questioning phrases *"So now what? What do we have to work with?",* the comment clearly articulates "*what"* has been suppressed or eradicated, namely the student's perspective and the fold as a folding of space. Moreover, it explicitly addresses the difference between the accommodating regimen and the regimen of origin. It is in "your presentation", that the meaning of my phrases disappear and it is in my regimen, "your" statements are problematic.

My comment, thus, reaches out in more than one way. It is an accusation: "Your adoption is an abduction!" and an enquiry: "Where is the abducted now?" but it is implicitly also a plea: "Can you bring forth the abducted and help me see it?"

Because I could trace the disappearance of students and folds into their presentation, my accusation became a plea to the architects to reexamine their own work. How well they did this depended not on anthropology but on their skills and their ability to reflect on their own practices. How as an architect do you draw the different and how do you include it in your design?

I did not design meeting rooms, reading rooms, a café, or windowsills. I did not make student life visible to students and I did not fold space. Architects within their own discipline did this. In other words, it takes a skilled architect to handle the different in the world of architecture.

The way I made a difference to the architects was not by having them become anthropological but in the degree to which I managed to make them respond architecturally to the challenges my phrases imposed on theirs. I did this by consistently identifying, articulating, and performing the different and by insisting on the urgency of not suppressing it in the design.

As mentioned, the outcome of our collaboration was a winning proposal that sparked a huge design project for HLA. Six years later, as the first students of the present move into their new collegiums in 2021, we finally get to see how they will adjust to the settings prescribed by the 2015 students of the future.

Notes

1 For a presentation of the final product, see NREP's website: https://en.umeus.dk/.
2 Most famously, the inaudible difference has been studied from a linguistic perspective by deconstructivist Jacques Derrida (Derrida, 1984). While Derrida aims to reveal inherent inconsistencies in language, Lyotard is concerned with social and existential consequences of becoming inaudible.
3 An example is Swedish anthropologist Katarina Graffman, who specialises in "user tribes" and business anthropology. http://www.inculture.com/2019/08/18/tribes-trends/.
4 Deleuze is addressing movement, meetings, and events. Thus. what meets when a meeting takes place are not isolated objects or subjects but what he refers to as objectiles and subjectiles, that like projectiles are constituted by their trajectories (Deleuze, 2010, p. 20).
5 All illustrations are photographs by Anja Sønderby Nørgård of the original posters.
6 Rem Koolhas is a Dutch architect and the author of *s, m, l, xl*, a bestseller and classic on architectural design processes (Koolhas, 1995).

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7 Human-centred research and open innovation (OI): How to implement and facilitate crosscutting collaborations in the built environment

Isabel Fróes and Cameline Bolbroe

Introduction

Humanities-driven research represents a valuable knowledge resource for architects, helping develop robust frameworks for user-involvement processes. Nonetheless, despite the general recognition that human aspects are important for good architectural design, humanities-based knowledge is underrepresented in the architectural industry. Additionally, research and industry collaborations often meet the challenge that the two domains function within, sometimes, very different time frames. Research processes can be viewed as time consuming with longer timeframes requiring extensive preparation while, businesses, tighter deadlines tied up to economic constraints. This scenario, present in various fields, is no different in the architectural sector, with many architectural design approaches relying on static architectural principles. Here, both architecture and inhabitant are conceptualised as predominantly static and figurative in contrast to engaged and active (McDougall-Weil, A., 2015). In contrast, an architecture that aims for change and transformation substantially challenges basic architectural premises of the static and pre-determinate (ibid.). Thus, architectural design processes need alternative design strategies and methods to further explore the new design opportunities that specifically result from properties of change and transformation offered by possible research collaborations (Radion, I.-E., 2017).

Recently, the relevance of human and social values for good architecture has gained attention in the architectural design sector (Cuff, 1992; Vardouli, 2016; Van der Linden & Heylighen, 2018), prompting some architectural firms to integrate user involvement processes into their design development. Yet, current business models in this sector often neglect human and social perspectives, leaving the voice of the end users – the inhabitants – unheard (McDougall-Weil, A., 2015). Incidentally, the prospects of user involvement processes as a business opportunity is only at its beginning while the demand for innovative business models in the architectural sector is high (Bos-De Vos, 2014).

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Design solutions based on well-researched user preferences and needs can have several beneficial impacts on the quality of architecture. For inhabitants and society the value of human factors is apparent and associated with socio-economic growth, resilience, health, well-being, safety, accessibility, equality, diversity, etc. The relevance of such values has been identified in several studies across the fields of architectural design, engineering, and business (Bos-de Vos et al., 2016).[1] However, how can businesses integrate human aspects of architecture research as a commercial design parameter? An answer to this research question might be the promotion of human-centred research, through the integration of open innovation (hereafter OI) approaches, as an added product to the architectural design process.

This chapter contributes to elicit how a human-centred research and industry partnership can contribute to architectural design practices towards new business potentials. Through a pilot case based on an industry–research collaboration, it is presented how an architecture firm might engage in developing services through direct exploration of architectural designs with end-users (future inhabitants). This chapter starts by introducing key concepts, OI, and human-centred research in relation to architecture. In the following, these concepts are bridged through a research-industry collaboration pilot case. The final sections of this chapter suggest guidelines towards humanities–business collaborations grounded on the preliminary research analysis and results.

Open innovation (OI)

The concept of OI, which deals with connecting internal research to ideas and resources outside of the organisation (Chesbrough, 2004; Helfat, 2011; Marcet, 2008), is decentralised and heterarchical (Pitt et al., 2006). Some of the OI principles include "integrated collaboration, co-created shared value, cultivated innovation ecosystems, unleashed exponential technologies and extraordinarily rapid adoption" (Curley and Salmelin, 2013, p. 2). As a principle, it highlights that product and service ideas are to be co-created with outside groups, who do not work in the company or organisation that will develop or provide them. Such an approach allows for pushing boundaries beyond a known framework, allowing initial concepts to be deconstructed, critically assessed, and creatively developed by *non*-biased participants.

An outcome of OI deals with companies having to increase their access to knowledge as dynamic instead of static (Helfat, 2011), and require services to maintain a continuous adaptive process to keep up with emerging demands and needs for a customer defined product (Freudmann, 2020). As a response to these needs, human-focused methodologies have gained ground, exploited in the fields of participatory design, co-design, interaction design, service design, and transformation design (Sanders and Stappers, 2008).

In recent history, two technological leaps have particularly influenced and shaped foundational premises for architectural practice. One regards the industrialisation of fabrication and building processes in architecture and, the other, the digitisation of fabrication and building processes. Yet, relatively little concern has been given to architectural innovation based on our interaction, engagement, and relationship with this industrialised and digitised architecture (Costa Maia, 2016; Costa Maia and Meyboom, 2015) and which kind of business models could emerge from integrating this approach.

Business models, early developed as a direct product exchange (Teece, D. J. 2010), have been further advanced in recent years to consider various aspects of products and services. Value propositions, direct and indirect customers, channels, etc., help businesses analyse their service offering through a specific set of lens (Osterwalder, A., and Pigneur, Y. 2010, 2013). In architecture practice, business models are mostly business to business (B2B), such as developing building designs for a business client and, sometimes, business to consumer (B2C), where architecture firms develop the designs for an end customer. In the architectural sector, these business models rely on principles developed prior to the recent digitally enabled opportunities and tend to still focus on economical values, while human-centred social value is often neglected (Teece, D. J. 2010). Concomitantly, within the domains of responsive and interactive architecture (and related), there has been several recent calls for more research into new design methods and perspectives that focus on design potentials related to human engagement and participation (Costa Maia and Meyboom, 2015; Loftness and Hartkopf, 1988; Schmidt & Austin, 2016; Senagala, 2005; Till, 2009). Consequently, such conditions challenge traditional architectural design approaches and emphasise the need for adapting to other models, which position human-centred qualities as a key value proposition at the core of architectural innovation and development.

Bridging open innovation (OI) and human-centred research

While there is an increasing interest in human-centred design approaches within the field of architecture, design processes directly involving inhabitants still do not play a significant role in architectural design processes (Spurr, 2007; Till, 2009; Vardouli, 2012). Architectural practice still relies to some extent on a hierarchical structure, where architects more often than not have the last word and predefine the bone structure of how others might live. Such hierarchies are evident in both architectural design as culture with the architect as the genius designer (Imrie, 2003), and embedded in architectural media, drawings, and visualisations, which literally favours the architects' point of view (Bloomer and Moore, 1977; Marble, 1988; Vidler, 1999).

Aiming to develop and offer a business and design perspective that encompasses such concerns, it is fruitful to reinvigorate the dynamic potential

of architecture as something that is continuously becoming and being shaped – and, not only by the architect. Considering architecture through the lens of a broader landscape of post human theory, architecture may be considered as ongoing processes of action, exchange, and engagement between the material, meaning, human, and non-human (Barad, 2007; Braidotti, 2013; Haraway, 2003; Hayles, 1999; Hekman, 2010; Manning, 2012; Puig de la Bellacasa, 2017). In this perspective, architecture is an ever-provisional result of intertwined action, exchange, and engagement between inhabitants, building, environment(s), and various stakeholders. Thus, architecture is fundamentally subject to change and adaptation.

Accordingly, buildings do not only have one function, or few functions, but many functions, of different kinds and with different often-overlapping purposes. The expression of architecture is a complex patchwork of different qualities: material, spatial, aesthetic, kinaesthetic, temporal, situated, transitory, etc. Meanwhile, the character of architectural processes and design strategies often reflect static architectural conceptualisations. Therefore, architects and architectural businesses may benefit from a move towards a more situated and dynamic approach to architectural design.

Such frameworks and their aligned business models must take into consideration that transformation occurs because of exchange and interaction across buildings, beings, and processes, instead of the conceiving of the building alone as a final design delivery (Bolbroe, 2019; Grosz, 2001). While OI typically focuses on technological aspects, such as product and production by means of digital fabrication, OI in architecture can also enable a focus on innovation through social and relational aspects.

When people experience architecture, they enter physically into its volumes, they move around, they feel its material textures, and perceive the sounds and light – to mention just a few relevant aspects (Bloomer and Moore, 1977; Rasmussen and Wendt, 2005; Zumthor, 2006). An attention and sensibility towards both physical and experiential aspects of architecture is therefore relevant for the development and improvement of our built environment (Bolbroe, 2019; Imrie, 2003; Vardouli, 2012). Acknowledged approaches, challenging a hierarchical relationship between the architect and the user (inhabitant), are user-centred and participatory design in architecture (McDougall-Weil, A., 2015). Participatory design in architecture discussions have their early roots in the mid-60s and has gained some more attention in recent years through the user-centred design and human-centred architecture concepts (McDougall-Weil, 2015; Luck, 2018; Petermans and Vanrie, 2019). Despite its history, making participatory design actionable within architecture practice is described and perceived to be time consuming and consequently costly, not yet becoming a general standard practice (McDougall-Weil, A., 2015). Furthermore, the economic models in architecture have only recently begun to include broader value streams related to the operational phase, usage, societal benefits, and sustainability aspects (i.e., Social Life Cycle Analysis – S-LCA, Post Occupancy

Studies – POS, Building Performance Evaluation – BPE). According to Sanders and Stappers (2008), "… domains of architecture and planning are the last of the traditional design disciplines to become interested in exploring the new design spaces that focus on designing for a purpose".

While human-centred research within architecture can bring a valuable contribution to the field, such as the suggested concept of Design for Human Flourishing (Stevens et al., 2019), it seldom permeates actively in commercial project developments (McDougall-Weil, A., 2015). Moreover, even when participatory design is the method of choice, situated and embodied perspectives are rarely applied, such as allowing participants to experience architectural design solutions at full scale. Nevertheless, it has been demonstrated that "designers can better understand latent, specific impacts of design choices" (Bukovszki et al., 2021, p. 18) when involving directly impacted users.

OI may be a strategy within an architectural design process to serve the goal of designing for human-centred innovation with uses of co-creation towards social impact (Irwin, 2015). Considering architectural design practice as a means for developing a product and looking at this product as part of a larger service, it becomes relevant to assess the possibilities that lie within such a service. Such consideration invites key questions: How can architects' current practice can be enhanced with more human-centred processes towards designing for unpredictability and more flexible designs? Moreover, how to best facilitate the transmission of end users' (future inhabitants) knowledge into the co-designing experience during the designing process? These initial questions can guide a collaboration strategy for how to tackle the challenges outlined in this chapter, contributing to a baseline for innovative service development and implementation.

When discussing user-centred design and human-centred architecture (McDougall-Weil, 2015; Radion, 2017; Stevens et al., 2019) in the context of large projects and competitions, it is relevant to note that the architectural design service ecology is composed of a wide variety of stakeholders. They influence and guide a number of aspects during the process, which are far from allowing actual future inhabitants to have a say towards their future living experience. Thus, bringing knowledge from humanities research through OI frameworks may help minimise the existing gap of human-centred approaches in architectural design processes.

A pilot research case

From the fall of 2020, Copenhagen-based architecture firm, KHR Architecture, has been working strategically with the integration of research-based user-processes into live building projects. The purpose is twofold: to increase the quality of architectural solutions as well as to contribute strategically to KHR's business models.

Graabroedre Appartments (GA hereafter) is the winning proposal for a public tender from the city of Roskilde (Roskilde Municipality), by KHR Architecture and private-sector developer CORE Property A/S. The tender regards the transformation of the buildings of a former public school, Graabroedre Skole, into apartments as well as a new adjacent building with additional apartments. The pilot study is part of the sustainability strategy for the overall project proposal by KHR Architecture and CORE PropertyA/S. In this context, the architectural project GA provided a fitting framework to demonstrate the use of human-centred research towards business development.

Short methodology overview

The pilot case is presented in a concise format – the research structure, the process carried out, and a summarised overview of the analysis and results – to illustrate how research in the context of architecture practice can aid business development. The study presented in this chapter was conducted as an integrated part of a commercial architectural project and the lead researcher collaborated with the architectural design team on a daily basis. In commercial architecture, project timelines are often very volatile and subject to change. For this reason, a very flexible research design is needed in order to counter changing circumstances. In this case, the primary study was conducted directly in a building, on a construction site, in an idle period between the partial demolition, and the construction phases. As a central part of the study, a full-scale modular prototyping system was developed and set up on location in the building. Engaging in this situated architectural framework, the purpose has been to look into how practices and experiences of prospective inhabitants may be utilised as a source and driver of architectural design opportunities.

The study used a mixed method research design utilising a design thinking approach following a divergent and convergent pattern in several iterations, in combination with qualitative interviews, performative workshops, and participatory observation (Brown, 2008; Creswell, 2014; Rowe, 1994; Buchanan, 1992; Cross 2008; Kvale and Brinkmann 2018; Pink, 2015). Prior to the design development phase, the research and design team established and assessed a series of design requirements in order to mitigate safety and handling issues necessary for full-scale interventions on a construction site with invited participants (Cross, 2008).

The overall research process was structured around two phases: (a) design-development of a 1:1 modular building system and (b) a qualitative experiment conducted on location in a building. The first phase involved the design development of the 1:1 modular building system, consisting of approximately 110 individual elements that in combination makes up a reconfigurable spatial test environment. This phase combines brainstorming, ideation, and prototyping over several iterations in order to arrive at the final design of the

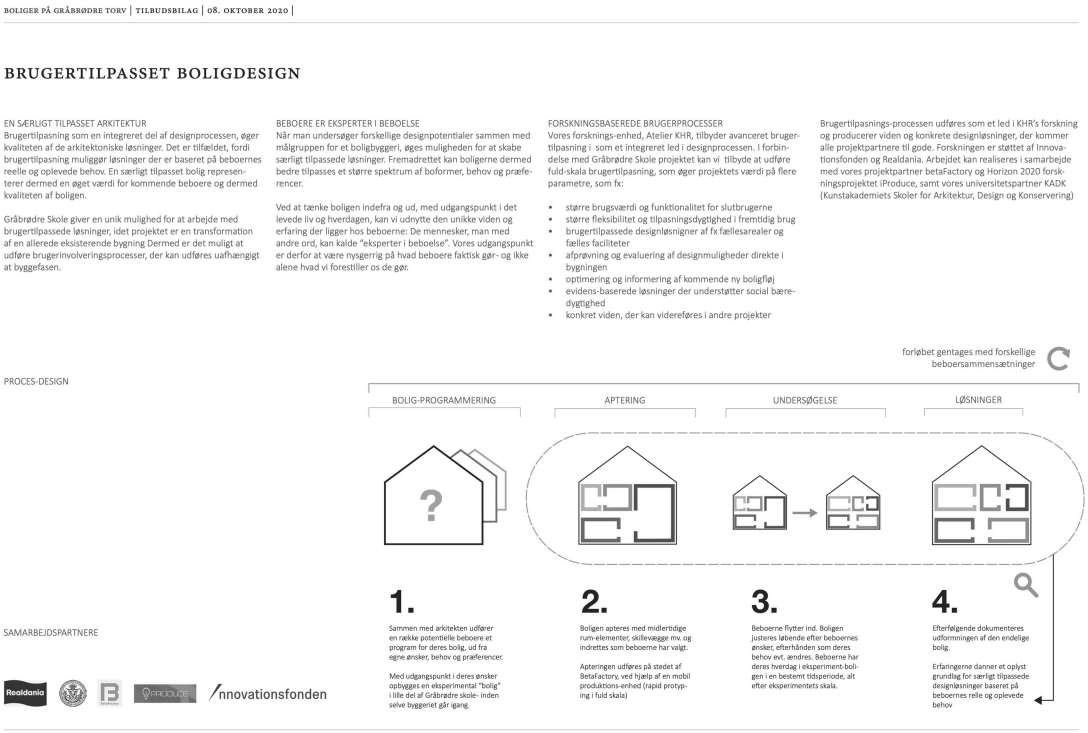
system. The second phase involved a series of performative workshops consisting of qualitative explorations on site, with invited participants, and drawing upon participatory and performative methodological elements. In the following, each phase is briefly presented.

Prior to the first phase, an architectural design team from KHR Architecture developed a project proposal for a competition entry in response to a public tender. Being a transformation of an existing building, this particular architectural project offered a unique opportunity to exploit the idle period between the demolition phase and the construction for research involving full-scale experiments. Adding further to the project proposal, the research project contributed to the overall quality of the project proposal with regard to social sustainability aspects, as called for in the public tender (Figure 7.1).

Following the tender results and following an OI approach, phase one started by setting up a cross-disciplinary design team and space consisting of researchers, architects, an engineer, and an interaction designer, located at an industrial maker space facility in Copenhagen. The overall prototype development and production involved five iterations during a four-month period: 1. Workshop, 2. Concept, 3. Design, 4. Production, and 5. Assembly. Given the condition of doing research during a live construction process, a central requirement was ease of handling and safety of modular building system. The design task was to conceptualise and produce a building system prototype with the capacity to facilitate the exploration of many different apartment layouts and interior solutions (Figure 7.2). Moreover, the building system should be able to be easily assembled and configured by two people. To fulfil this goal, a number of design aspects were considered such as size, weight, materials, joints, surfaces, assembly, transport, etc. These aspects were widely explored and converged into a final solution for a modular building system designed for full-scale architectural user interaction. As a result, the building system was designed as a modular building set consisting of 110 "building blocks" that can be combined in various spatial configurations in collaboration with invited participants.

The second phase focused on exploring the prototypes with the end users (future inhabitants) in situ across a two-month period. The researchers chose a purposeful sampling of participants, who represented the target customer group, to understand the actual value of the service in a business model proposition (Osterwalder and Pigneur, 2010). The participants were sampled amongst a number of people who had actively expressed an interest in the prospective apartments to the client. From the list received, all listed households were invited to participate in the pilot user study. Initial contact was made via email, requesting acceptance to send detailed information about participation in the workshops. Thirteen households were contacted and 11 households, totalling 18 people, participated in the workshops.

The workshops were designed around (1) a semi-structured interview supported by an interview guide (Kvale and Brinkmann, 2018), (2) a



BOLIGER PÅ GRÅBRØDRE TORV | TILBUDSBILAG | 08. OKTOBER 2020 |

BRUGERTILPASSET BOLIGDESIGN

EN SÆRLIGT TILPASSET ARKITEKTUR
Brugertilpasning som en integreret del af designprocessen, øger kvaliteten af de arkitektoniske løsninger. Det er tilfældet, fordi brugertilpasning muliggør løsninger der er baseret på beboernes reelle og oplevede behov. En særligt tilpasset bolig repræsenterer dermed en øget værdi for kommende beboere og dermed kvaliteten af boligen.

Gråbrødre Skole giver en unik mulighed for at arbejde med brugertilpassede løsninger, idet projektet er en transformation af en allerede eksisterende bygning Dermed er det muligt at udføre brugerinvolveringsprocesser, der kan udføres uafhængigt at byggefasen.

BEBOERE ER EKSPERTER I BEBOELSE
Når man undersøger forskellige designpotentialer sammen med målgruppen for et boligbyggeri, øges muligheden for at skabe særligt tilpassede løsninger. Fremadrettet kan boligerne dermed bedre tilpasses et større spektrum af boformer, behov og præferencer.

Ved at tænke boligen indefra og ud, med udgangspunkt i det levede liv og hverdagen, kan vi udnytte den unikke viden og erfaring der ligger hos beboerne: De mennesker, man med andre ord, kan kalde "eksperter i beboelse". Vores udgangspunkt er derfor at være nysgerrig på hvad beboere faktisk gør- og ikke alene hvad vi forestiller os de gør.

FORSKNINGSBASEREDE BRUGERPROCESSER
Vores forsknings-enhed, Atelier KHR, tilbyder avanceret brugertilpasning i som et integreret led i designprocessen. I forbindelse med Gråbrødre Skole projektet kan vi tilbyde at udføre fuld-skala brugertilpasning, som øger projektets værdi på flere parametre, som fx:

- større brugsværdi og funktionalitet for slutbrugerne
- større fleksibilitet og tilpasningsdygtighed i fremtidig brug
- brugertilpassede designløsninger af fx fællesarealer og fælles faciliteter
- afprøvning og evaluering af designmuligheder direkte i bygningen
- optimering og informering af kommende ny boligfløj
- evidens-baserede løsninger der understøtter social bæredygtighed
- konkret viden, der kan videreføres i andre projekter

Brugertilpasnings-processen udføres som et led i KHR's forskning og producerer viden og konkrete designløsninger, der kommer alle projektpartnere til gode. Forskningen er støttet af Innovationsfonden og Realdania. Arbejdet kan realiseres i samarbejde med vores projektpartner betaFactory og Horizon 2020 forskningsprojektet iProduce, samt vores universitetspartner KADK (Kunstakademiets Skoler for Arkitektur, Design og Konservering)

PROCES-DESIGN

forløbet gentages med forskellige beboersammensætninger

BOLIG-PROGRAMMERING | APTERING | UNDERSØGELSE | LØSNINGER

1.
Sammen med arkitekten udfører en række potentielle beboere et program for deres bolig, ud fra egne ønsker, behov og præferencer.

Med udgangspunkt i deres ønsker opbygges en eksperimental "bolig" i lille del af Gråbrødre skole- inden selve byggeriet går igang.

2.
Boligen apteres med midlertidige rum-elementer, skillevægge mv. og indrettes som beboerne har valgt.

Apteringen udføres på stedet af BetaFactory, ved hjælp af en mobil produktions-enhed (rapid prototyping i fuld skala)

3.
Beboerne flytter ind. Boligen justeres løbende efter beboernes ønsker, efterhånden som deres behov evt. ændres. Beboerne har deres hverdag i eksperiment-boligen i en bestemt tidsperiode, alt efter eksperimentets skala.

4.
Efterfølgende dokumenteres udformningen af den endelige bolig.

Erfaringerne danner et oplyst grundlag for særligt tilpassede designløsninger baseret på beboernes reile og oplevede behov

SAMARBEJDSPARTNERE

Realdania | /nnovationsfonden

2 | KHR ARCHITECTURE | CORE PROPERTY MANAGEMENT A/S | JÖNSSON ENTREPRISE A/S

Figure 7.1 Page from the competition entry for an open public tender, where the research concept was explained.

Figure 7.2 Full-scale modular prototyping system.

performative participatory event supported by an action guide, and (3) a follow-up interview and debriefing (Figures 7.3 and 7.4). Eleven workshops of three hours each took place between June and August 2021, where the end users explored and experimented with alternative apartment layouts, based on their needs and preferences. The workshops created unique opportunities to bring key people close to their possible near-future living spaces, interact, and adapt them to their needs and tastes.

Central to the workshop was the participatory aspect, since the objective was to understand how the participants' engagement with the prototypes might inform the architectural design. This form of participatory event was adapted from performance techniques with the purpose to explore the experiential and relational aspects of a specific spatial environment performed through bodily engagement (Bolbroe, 2019). Combined with a semi-structured interview guide (Kvale and Brinkmann, 2018), the researcher also developed an *action guide*, similar to a score (Schechner, 2013), a set of instructions for actions and behaviour to structure and organise participation

Figure 7.3 Participants engaging with the modular building system during performative workshops.

Figure 7.4 Scenes from the workshops. Both participants and researchers made use of hand sketches and plan drawings as reference material.

through bodily engagement, structured according to the basic principles of a performative model*: warm-up, performance*, and *cool-down* (Schechter, 2013).

The semi-structured interviews took place upon arrival of the participants. The interviews were followed up by the action guide *warm-up*, setting the scene and it served the purpose of acquainting themselves with the prototypes, the space, and the overall environment to be explored. The *performance* focused on engaging directly with the prototypes, moving them around, and positioning them originally in the locations indicating the apartment divisions initially planned for that part of the building, followed by an exploration of creating new spaces by repositioning the prototypes into new layouts (Figure 7.3). During this time, the participants talked aloud while engaging with the prototypes as guided by the researchers, to encourage the participants' initial oral elaboration (Ericsson and Simon, 1993). The *cool-down* served as a moment of contemplation and reflection to allow participants to comment and further elaborate about the embodied experience. The final part of the prototype exploration dealt with a post-interview session with the participants to gather impressions, opinions, reflections, and perceptions of the overall experience (Figure 7.4). The goal of this post-interview was to identify the value that similar services might have for the participants and to help uncover how such services can be integrated into the architectural design and building sectors.

Research insights

By exploring architectural solutions based on actual future inhabitants' experiences, the authors wish to explore and integrate the unique knowledge and expertise that lies within the inhabitants – as "experts in habitation". Our starting point was therefore an interest towards learning about

what future inhabitants actually might do, think, and experience – not only what is anticipated to be what they do, think, and experience. In this context, the building system acted as a motor for dialogue and open-ended enquiry, involving direct bodily experience (Bolbroe, 2019).

The analysis was carried out using the full interview transcripts, field notes as well as sound and video recordings. All collected data was compiled, clustered, and coded using content analysis to generate a set of themes (Charmaz, 2014). The role of the visual material and field notes together with the researchers' active and direct participation was valuable for the analysis, as these combined resources were vital for the interpretation of the field data. Contextual knowledge is crucial to decipher and understand otherwise-implicit aspects such as gestures, verbal references to space across different moment in time, movement, actions and interactions between participants, and the physical environment. For the purpose of this paper, the authors delimited the scope of the results to indicate the most relevant insights that ground our discussion and contribution.

Through the preliminary coding, three themes have been identified, which uniquely describe and nuance a range of values that emerged as result of the participants' engagement with the prototypes and the environment. The themes are "design understanding", "tangible validation", and "customisation value"; each signifies a form of value in relation to the overarching research focus and initial research questions. Given the early stage and scope of this chapter, each theme is proposed as a pointer of direction for further research.

Design understanding

When participants get the opportunity to engage physically in a full-scale prototype environment, their awareness and assessment of their own needs and preferences regarding the design parameters increases. Participants reported similar experiences in this regard, as one participant expressed:

> (IM) *It [the prototype environment] provides something to respond to physically, instead of looking at a drawing. It provides a better spatial understanding, because you can move these modules around. It triggers many more thoughts when you can move around and are able to use your body.*

Another participant describes the experience as *"architectural therapy",* and explains that the process itself helps her to gain a better and more nuanced understanding. Similarly, one participant clearly describes the experience as increasing her awareness: (E) "*when I leave today, I will be more aware of it* [about her own needs in terms of interior design]". In addition to obtaining an increased awareness, the participants' needs and preferences seemed to change over time, as the exercises progressed. Typically, participants' expressed particular needs and preferences during the interview prior to the

performance session, such as m2-requirements, number of rooms and relationships between rooms, storage, and so on. On many occasions, their initial preference changed. For example, the required m2 was reduced or the preferred number of rooms changed. Often quite small changes in the spatial configuration made the difference between an attractive plan solution and an unattractive one. Another participant explained how needs and preferences change in accordance to the practical experience of them: (E) *"When you change something [the spatial configuration] it affects other things. One need creates another one. Slowly you start to realise, oh, it can be like this too!"*

These initial observations led to a preliminary suggestion that engaging physically with a prototype space gives a deeper understanding of the needs to be accommodated into architecture design parameters.

Tangible validation

Related to awareness and assessment ability is validation of design proposals, which in this case was made tangible through the participants' opportunity to engage with a physical environment. All participants, to varying degrees, actively used their body to engage and assess various design opportunities. They moved around in characteristic patterns, such as back and forth while looking from side to side, as to physically use their body as a measuring tool to gauge the design of the space. As one participant pointed out, (LL) *"one thing is to say 75 square metres, but how 75 square metre actually appears is very different"*. They also actively used their hands, arms, and legs as bodily "measuring sticks". Meanwhile, most participants expressed their immediate thoughts and opinions, and after a while arrived at a conclusion. As one participant expressed in the follow-up interview,

> (M) *The closest I have been [to a related experience] was to measure all of my furniture, cut them out and place them on a plan drawing. This … being able to stand up inside [physical space] and make a living plan drawing … can we move this [wall] … yes, because there is still enough room for the bed.*

Similar to this participant, other participants expressed that they had a hard time only imagining spatial design solutions: *"It is hard to imagine how large an entrance hall should be [in order to be functional and feel good]"*. In comparison to looking at architectural plan drawings and engaging with a reconfigurable full-scale environment, one participant (OB) expressed that *"it [engaging in a full-scale environment] comes back tenfold!"* Unfolding his explanation, he described how engaging in the situation with his senses helped him to obtain a clearer impression of specific spatial properties and how sound and light conditions played a role. Additionally, the possibility to try out different possibilities, such as making a room smaller or bigger was helpful, because his body and movement became a means to validate if a particular design proposal fits his needs and preferences. Similarly, he expressed that it is

attractive to be able to influence architectural design solutions. He concludes, (HG) "*that thing [the opportunity], to be able to choose [between different scenarios and solutions]*".

When participants are presented with physical design proposals and an opportunity to augment them, they are generally very good at expressing how and why the proposal suits their needs – or not. A participant (MG) explained that experiencing and participating in an architectural design process at full-scale *"makes it more realistic"* and she got a better sensation of dimensions and space in terms of size, position and spatial relationships. Similarly, another participant compared the experience to a plan drawing, and concluded (L) *"I think this is much better. With a drawing … it is very hard to imagine how you can change the design"*.

Not only did they validated design proposals in accordance to their needs and preferences, they also spontaneously began to suggest alternative solutions on several occasions initially validating the value of such tangible experiences.

Customisation value

During the workshops, it was observed on several occasions that some of the participants spontaneously expressed a wish and willingness to pay for specific design solutions. Wishes fell within the two categories: customised solutions and to pay for choice. Yet a third may be identified, although not expressed directly, an option to purchase a design service similar to the workshop, to obtain the opportunity to influence architectural design. Among the solutions that the participants suggested and wished to buy as custom options, were design elements directly derived from the modular prototyping system, such as sliding doors and mobile partition walls. Among other design suggestions were mobile kitchen elements and rather extensive built-in storage designs. Moreover, lighting design and the location and design of the kitchen/bathroom amenities were among the candidates for custom-design options. One participant said, "I *would prefer that the kitchen sink is placed in front of the windows so I can look outside when I do the dishes. I don't like looking into a wall when I do the dishes*". To her, this feature was important enough to decline an apartment without this design.

These results indicate an untapped opportunity to monetise research-led physical prototyping experiences as a product within architectural design practice.

Discussion

While the general recognition that the considerations of the inhabitants' needs and preferences are important for good architecture, architects typically have limited direct access to inhabitants' perspectives (Sleeswijk

Visser, 2009). This study suggests the depth and quality of the inhabitant's perspective has important design implications for the architect. To propose relevant design solutions, architects may benefit from access and means of enquiry that help provide accurate and rich accounts of the inhabitants' perspectives, aggregating research in the design process can be one way to address such limitation.

These three themes can be embedded into business practice in various ways. For example, some structural design aspects participants mentioned, such as "window over the sink" or "bathroom with a window" can be fed straight into architectural designs, helping create more desirable layouts, fitting future residents' existing expectations and requirements.

As can be gathered from preliminary results, there was a clear interest in participating in this kind of study, demonstrating an untapped opportunity that can be further explored in future projects as participants were keen and saw value in experiencing future residential spaces before committing to a pre-set layout. Furthermore, the participants' indication that they would be willing to pay to take part in similar workshops suggests that infrastructure user-customisation in the building sector has a value and could be an add-on product or even a stand-alone service to the architectural business. This finding still needs to be validated in the market; nevertheless, it uncovered a possible market opportunity, which currently is not a mainstream offer in the large-scale architecture and building sector for residential living.

Besides the increased design potential, the customisation aspects indicate a novel set of value propositions to both companies and end users. The process and results also open up for the exploration of a new formulation regarding business models in the architectural design industry (Teece, 2010). Currently, these services have been mostly B2B and B2C, as earlier presented in this article. Within these models, valuable business proposition aspects from both the client (developer) and end-user (prospective residents) sides are suggested:

User side (Business to customer – B2C)

- Increased sense of ownership and relatability.
- Clarification of own needs and preferences (expected vs. actual).
- Accommodation of needs and preferences in design solutions.
- Increased interest and well-being due to being listened to.
- Willingness to "pay for choice".

Client side (Business to business – B2B)

- High-resolution evidence-based design may increase value through robustness of solutions.
- Greater flexibility provides a greater variation of use scenarios.
- Deeper knowledge about user segments and target groups.

- Potentially better sustainability profile due to increased life cycle of building.
- Awarded points in assessment of project (Roskilde Municipality).

However, the presented case does not exactly fit with either B2B or B2C; instead, it opens up to an opportunity, that of business to consumer to business (B2C2B), a model already applied among digital services (Hsiao, 2001; López-López and Giusti, 2020) but not yet widespread within architectural practice.

In addition, mitigating current building constraints through OI and research can positively impact architectural practice, capitalising on inertial steps in the design and building process. Currently, these processes are very long due to the complexity of stakeholders, financial requirements, building regulations, and it is not uncommon in renovation projects to have the space in standstill (and mostly unused) due to regulatory permits that need to land at the building site before the construction can start. Only having the knowledge of these idle times through a close collaboration with the industry, could the research take place exploiting the opportunity to test full-scale models in situ. In this case, it has been a prerequisite the researchers were able to carry out the pilot study without knowing the specific time intervals in advance and with the condition that the building might need to be vacant within very short notice.

As a result, for the residential building project "GA", KHR Architecture explored the potential of relational architecture as a design potential through an industry–university collaboration. In this process, the stakeholders committed to developing a new modular building system to facilitate human-centred design development of residential architecture, at the scale 1:1.

Some of the challenges initially identified:

- The innovation pipeline in the built industry is very long due to complexity of stakeholders, financial requirements, building regulations, etc. How can researchers exploit this situation in order to democratise architecture and the making of architecture?
- Deeper engagement enhances the human perspective allowing for higher empowerment and more robust and relevant design solutions. However, due to the infancy of this field, services building upon human perspectives may requires new business strategies to monetise within the industry. More research and market validation might be needed to incorporate this into architectural design practice.
- Development and innovation at full scale may be less feasible with conventional technologies due to financial barriers and time constraints in building projects.

Preliminary results indicate that, through research, a novel business model can bridge digitalisation opportunities from technology and service sectors

towards industrial practice and demonstrates its value across key stakeholders. While it is widely recognised that architecture's core value proposition lies in the form of a physically manifest building, it is less recognised how human factors such as *social processes, systems, structures, and relationships* in the built environment represent business value in the architectural industry and for the contractor, respectively.

Taking a human-centred approach and engaging with future inhabitants in 1:1 scale environment, this project has exposed the untapped opportunity of learning from needs and preferences that can guide architectural design processes. Human-centred research allows for informed decisions, which might challenge some technical perspectives commonly applied in the field, and offer a paradigm change in the way architectural practice might be practised and perceived. For architecture, the quality of *social processes, systems, structures, and relationships* is closely connected with the physically built environment, and thus need to be studied at the actual order of magnitude, namely at full scale. Combining an OI approach with a human-centred research can improve the feasibility of full-scale development and innovation.

For the architectural industry, a novel business model can highlight and operationalise how social processes, systems, structures, and relationships can continuously inform, develop, and enhance architectural design, in the form of a new architecture service product. Furthermore, it can facilitate the inclusion of experiential and relational architectural aspects emerging from the humanities towards a valuable and yet unexploited business perspective.

For the contractor, the increasing sustainability demands and requirements emphasise the need for architectural products that not only meet requirements related to the economic and environmental aspects of sustainability but also social ones.

For the building sector, even though the prospect of a research in the development process might not be initially regarded as highly valuable, it is the opportunity to build towards more sustainable solutions facilitated through the research that can help the sector achieve a more proactive practice through such collaborations. Finally, end users or future inhabitants are included in the business model, which is a clear paradigm change within real-estate development, providing original perspectives and approaches for the sector.

Conclusion

Combining the industry and research collaboration with the OI approach was key towards a fast and thorough process in co-exploring and co-developing ideas and prototypes for this case. Moreover, the research-industry-based OI approach enabled the integration of a human-centred research, directly in a live design and building process. This allowed the

exploration of the potential of research in situ and in full scale, which is otherwise less approachable with conventional construction means. For the architecture studio, there were valuable insights to be gained from exploring various use scenarios and the exploration of inhabitants' needs and preferences. Knowledge derived from such studies reveals a large untapped space of opportunities, based on identified and validated needs and preferences. Such knowledge has the potential to improve architectural solutions not only in the specific project but also across projects, and secure more relevant and robust designs. Moreover, applying aspects of OI allied to research in the architectural practice, suggests the field of humanities is a valuable pillar in research and industry collaborations. Such opportunities become available through challenging the standardisation of design and building processes, creating novel product, service, and business offerings through focused industry and user-driven research collaborations.

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Note

1 To some extent, validated through tools and standards as the Social Return on Investment (SROI), Social Lifecycle Assessment (S-LCA), and sustainability certifications with a social profile in the building sector (i.e., DGNB, WELL, and Active House).

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8 From position- to issue-driven collaborations between the humanities and business: The case of "Eat it, and save it"

Morten Krogh Petersen

Introduction

As a contribution to the field of business anthropology, this chapter lays out what I term an issue-driven approach to collaborations between the humanities and business. This issue-driven approach is developed through a consultancy project that I was engaged in, and which was to formulate recommendations on how to scale a new food concept. The main ingredients making up the food items in this new food concept are all produced by cultivating Danish heirloom livestock and crops, enabling consumers to partake in the preservation of these heirloom livestock and crops by buying and consuming these food items. "Eat it, and save it", as one tagline for the concept read. As cultural analytical consultants, we, my then business partner and I, interviewed ten Danish households on their food consumption practices, and during these interviews we asked the ten households to develop further the new food concept with us. Our client, a conglomerate of food producers and businesses, researchers, and civil society organisations, and we, the consultants, all supported the main idea guiding the development of this new food concept. As Søren, a member of one of the ten households interviewed and who we will meet again a little later, put it: "This is crazy important – biodiversity is crazy important!" We all supported the idea because it is an example of how we might begin handling the current environmental devastations in our everyday lives. We shared and sought to enact participation in an issue of public concern – the pending climate, environmental, and biodiversity crisis – situated in everyday food consumption practices. And we all did our best to make this participation as strong and impactful as possible through our different ways of thinking, working, eating, living, and relating. This collaborative effort to handle an issue of public concern lies at the heart of the issue-driven approach. In the closing of this chapter, I offer four tips on how to engage with and develop further this issue-driven approach.

It is also this situated and collaborative participation in an issue of public concern that sets this approach apart from the approaches detailed in the existing body of literature produced within the academic field of business

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anthropology (Jordan, 2012). This existing body of literature primarily discusses the positioning of the anthropologist vis-à-vis business or businesses. Anthropologist Daniela M. Peluso, for instance, distinguishes between an anthropology *of* business (which she also terms *non-consultant anthropology*), and an anthropology *for* business (which she also terms *consultancy anthropology*) (Peluso, 2017; see also Denny and Sunderland, 2016). Anthropology of business has produced a wide range of insightful ethnographies on how businesses operate (examples include Law, 1994; Moeran, 1996; Ho, 2009; and Krause-Jensen, 2010), while anthropology for business is a more scattered subfield as succinctly described by anthropologist Melissa Cefkin in the introduction to her edited volume *Ethnography and the Corporate Encounter*: "Neither a "how-to-book" in applied anthropology, nor one of angst-ridden wringing about practitioners moral and political complicity, the aim of this volume is, nonetheless, to explore and expose the very complex conditions of this work" (Cefkin et al., 2010, p. 2). Further prepositional referents have been added to the mix – anthropologists can also work *with*, *in* or *outside* of business or businesses, Peluso mentions (Peluso, 2017, p. 19). Transparency in positioning is important always, everywhere, and in all kinds of cultural analytical work. But if we can agree, as Peluso also states, that "business and businesses are now, more than ever, becoming increasingly recognized by the public as part of our socio-cultural, economic and political lives" (Peluso, 2017, p. 11), then we need to re-think this positioning. Not only do we need to position ourselves vis-à-vis business and businesses but also understand ourself as always already deeply entangled in the issues of public concern which business and businesses take part in enacting through their doings. Anthropologist Lucy Suchman, who pioneered the uptake of anthropological modes of working in business settings (see, for instance, Suchman, 1983), makes a similar point, describing how the anthropologist is also positioned in business or businesses. The interest in anthropology from business, Suchman contends, "involves the anthropologist herself in an identity marked as exotic other within the context of commercial and technological worlds: an other brought home to live inside and become part of the enterprise" (Suchman, 2007, p. 1, see also Suchman, 2013). The effect of these dual practices of positioning is that both business and the humanities are caught up in and continue to reinforce their different identities rather than exploring what they might accomplish together. The argument is not that the humanities should be eaten by businesses to save themselves or vice versa. The argument is that we need to find ways of collaborating, in which such different ways of thinking and working are brought into play in handling issues of public concern. We need to leave the prevailing position-driven approach behind and, instead, begin to flesh out an issue-driven approach to planning, executing, and scaling collaborations comprising the humanities and business. Following this, my aim here is to begin answering the following

explorative question: How can the humanities and business begin to handle issues of public concern – in this case sustainable transitions – together?

Interviews and analyses powered by material participation

In the following text, I will re-tell some of the stories about food consumption that the ten households told us. To re-tell stories is not only a matter of stating the facts. It is an analytical exercise, which is powered by the notion of material participation developed in a number of publications by sociologist and key contributor to the field of science and technology studies, Noortje Marres (2012a,b, 2011; Marres and Lezaun, 2011). Marres explores "how the project of 'letting things in' *transforms* a specific category of social and political life, that of participation" (Marres, 2012b, p. 1, italics in original). Commonly, we regard participation in issues of public concern as an out of the ordinary practice – voting in a voting booth, or protesting in the streets, for instance. Letting everyday things into the equation, however, not only extends these existing forms of participation but enables a new form of participation, Marres argues, to potentially be enacted in material everyday practices. Material participation, thus, is a form of participation in issues of public concern that may be enacted in material everyday practices. To give an example from another of the ten household interviews: Like Søren, Jakob is in his early 30s. It would annoy him to be called a foodie but his girlfriend, Soheila, tells us that he – at times – is somewhat stressed out over all the food experiments he has to tend to in their apartment. And he shops for food – daily. During the interview, we give him one of the food items in the new food concept, a sausage: "OK, if that sausage had been lying next to the one, I bought in the supermarket yesterday, I would have picked that one! I could have told my son about it – that it matters what we eat – it's a real nice concept!" The analytical point being, that if the sausage had been right there in that moment – yesterday in the supermarket fridge for sausages – then it would have become part of Jakob's daily shopping practice, and it would have become a social and political actor, taking part in enacting a specific version of participation in the issue of sustainable living. It makes sense, then, to regard everyday practice not only as social, but socio-material. A form of participation that is more fleeting than most democratic votes, quieter than a protest in the streets. A form of participation that, however, is a collective achievement – enacted through entanglements of people and things, entanglements of business opportunities like the sausage, and caring for one's child and our planet through the self-same sausage.

As all the food items in the new food concept are organically produced, that conglomerate found it best to interview households that had a positive attitude towards organic farming.[1] Further, the conglomerate asked for diversity in the households' constitution – two single households, two

households of couples with no kids, four households of couples with kids living at home, and two households of couples whose kids had left the nest. And, further, we, the consultants, were asked to ensure geographical diversity in where the households had their homes.[2]

The issue-driven approach to collaborations between the humanities and business cares about and is cared for by enactments of material participation as exemplified by the sausage in the aforementioned example. The specific way we set up and conducted our interviews illustrates this point on mutual care. We insisted on conducting the interviews in the homes of the ten households, as, following Marres, the home is a prominent site for the enactment of material participation. Each interview lasted between 1, 3, and 5 hours. The rather long interviews enabled our interlocutors and us ample time to not only factually map the household's food consumption practices but also construct a mutual understanding of the households' varied ways of (not) partaking in sustainable transitions as an issue of public concern. For instance, Soheila, whom we will also meet a little later, told us, that she and her girlfriends share tips on more sustainable householding via snaps on Snapchat. We took photographs of the households' kitchens to add to our understanding of householding as a socio-material practice. And we brought exemplars of the food items – including the promotional storytelling materials also developed by the conglomerate – with us and into the homes of our household interlocutors. We let the members of the households see, touch, and smell the food items, and we read the storytelling materials out loud for the household members. All of this enabled our household interlocutors to act as co-designers (Sanders and Stappers, 2014; Sanders, 2006; Binder and Brandt, 2008; Mattelmäki, 2005) of the next version of the new food concept.

Routines

In our analysis of the empirical materials generated through the interviews we asked: How might the new food items become part of the households' everyday practices? When, where, how, and why? And what kinds of value and values could the food items take part in enacting there and then? The response from the empirical materials was univocal: The households suggested less alluring storytelling and more information about how the preservation work took place, and why, more exactly, the conglomerate is engaged in this preservation work. The food items and the storytelling materials, in other words, allow for the households to act as citizens engaging in what may constitute "good" food items and their production, rather than consumers seduced by the storytelling materials. Digging analytically deeper into the stories told by our household interlocutors, it became clear that the scaling of the food item relevant axis of difference was not between the households but between three different kinds of food consumption practices shared by all the households. That is, the establishing

of food consumption routines, the conducting of experiments in food consumption, and the planning of events in which food and food consumption plays a significant role. The point being that in formulating recommendations for how the new food concept can be scaled, we could take our point of departure in these practices of establishing routines, conducting experiments, and planning events. I lay out this analytical result in more detail later.

For three years, Bente, 66, and Torben, 70, have lived full-time in their summer cottage in Odsherred, Northwest Zealand, Denmark. They decided to retire, which prompted them to give up their first home – an apartment in a Copenhagen satellite city. They support the local business community in their food purchases and when shopping for other necessities. As Bente explains: "You can shop cheaper elsewhere. Nevertheless, now that we have decided to live here, it is reassuring to know the local shops. By now, the local shops also know our needs". During the summer, they buy essential items from the ultra-local grocery store. That store is open only during the warmer months when more people live in or rent the area's many summer cottages. However, the range of the ultra-local grocery store does not always live up to the couple's standards of freshness and variety. They go to a less local supermarket instead. It has a much broader range of fresh, organic goods. "But we don't like the potential implications of the small shops closing – that isn't good for life in the area", Torben contends.

Bente and Torben usually go food shopping together, and their trips follow a somewhat fixed route through the local shops. In addition to shopping locally, they go for organic food items. At the local bakery, they buy their organic bread. They purchase cold cuts and cheeses at their local farmer's market. They shop there weekly. And they like this farmer's market a lot. Torben always chats with the owner, who is, like Torben,

from Southern Jutland. Their assortment includes a specific sausage that reminds Torben of the one he got when he was a child growing up in Southern Jutland. Freshly caught fish is their favourite summer food, and they buy it at the local harbour's fishmonger. "We chat with that owner, too", Bente chips in.

These routines, however, are not set in stone, and they are not followed mindlessly by Bente and Torben. "When it's possible to buy organic, I will gladly do so", Bente says, hinting that the shops she visits do not always support her desire to buy organically produced food items. With a twinkle in her eye, she adds: "Torben is from Southern Jutland", a region of Denmark known for its slightly stingy citizens, "so he also looks at the price". Torben responds: "I don't mind organically produced foodstuffs, but I also know that organic farming is not always the most sustainable way of producing food". Torben's knowledge of farming, and his price awareness, question their routine of buying organically. They like the liver pate from the local supermarket better than the one sold at the farmer's market. A specific industrially produced jam has a taste that, according to Torben, "no one can beat". "We have tried the locally grown, organic lambs. The meat was way too fatty for our taste. We don't buy that anymore", Torben says, Bente nodding. Organically and locally produced food items are often promoted as tasting better. Bente and Torben sometimes disagree, questioning their routines of buying locally and organically.

Consumer values are often understood to dictate consumer behaviour (Shove, 2010). Attending to practices – in this case, the food shopping practices of Bente and Torben – destabilises this believed causality between values and behaviour. The food shopping practices of Bente and Torben do not only comprise their values of shopping locally and organically. The assortments of various shops, childhood memories, price comparisons, knowledge of farming, a chatty owner of a farmer's market, a nearby harbour, tastes, and the fat content of a piece of lamb meat all partake in enabling Bente and Torben to become engaged in what to them constitutes good food shopping practices. While these, to Bente and Torben, 'good' food shopping practices are largely routinised, they also engage in experiments. The purchasing of the locally and organically cultivated lamb meat is the example put into words by Bente and Torben. Their attachment to a specific liver pate and jam is another example of an outcome of their experiments. In the case of Bente and Torben, experiments do not always lead to the establishment of new routines, even though these experiments could result in routines more in line with their values of buying locally and organically. Consumer values do not dictate behaviour. Instead, consumer values are continuously reinforced, reinterpreted, and reconfigured in and through the consumption practices carried by human consumers and enabled by a wide range of more than human actors.

Bente and Torben's stories about their food consumption practices were the ones that most forcefully put routines in the driving seat. The members

of the following Copenhagen-based household, Sohelia, 34, Jakob, 31, and their child, Hetav, 2, told similar stories of routines. Jakob also told us many detailed stories of his experiments in more sustainable food preparation.

Experiments

Jakob is the primary food shopper and preparer in this household. For instance, he bakes all of the family's bread. He keeps his sourdoughs alive and well. He has been baking for a few years now, gradually becoming more proficient. He has acquired a mixer and is constantly trying to refine his bread making. He finds recipes online and compares his bread with bread from niche and high-quality bakeries. Furthermore, he has experimented with several different types of flour, and he thinks that he is approaching the perfect bread. He recently started using flour with a very high content of gluten, which makes a crucial difference to him. The high-gluten flour is produced at a specific mill: "You know all those health shops. They sell organic flour produced responsibly, but the gluten content is low. You can hardly bake with that type of flour alone. Then I think it's a bad product! On the other hand, this flour, from that specific mill – it's fantastic! It has an enormously high content of gluten!"

For Jakob, baking the family's bread is not a routine but an open-ended project of continuous experimenting. The purpose of these experiments is to – one fine day – pull the perfect loaf out of the oven. It is telling that Jakob says he is almost at the finishing line but not quite there yet. If he did reach his goal, his baking would lose its value as it is the succeeding experiments that make baking a meaningful practice for Jakob.

Jakob's experiments go well beyond baking bread. He is currently reading a guide to fermentation and experiments with making soy-like products and miso from Danish ingredients such as yellow peas and squid leftovers from the local fishmonger. He experiments pickling edible plants and their fruits foraged in and around Copenhagen. He has been brewing beer with a friend for a long time – not the same beer twice, however. He often eats out with family and friends, and on Instagram, he follows his favourite restaurants and chefs: "I use restaurants and social media to get inspiration. I follow the head of NOMA's fermentation work, for instance. And I follow a guy in England who is creating the first restaurant in the world that is 'zero-waste'".

Few aspects of Jakob's food preparation practices are routinised. To get things done – to get food shopping and preparing – done better requires experimentation. Nevertheless, there are limits. To experiment constantly, at every time and in every place is exhausting. Too exhausting. This point is made by Jakob's wife, Soheila. She tells us that Jakob's "tending to all of his experiments at a point became a bit much". A bit much as in taking too much focus away from other and equally important everyday householding tasks and concerns. The solution: the couple has agreed to curb Jakob's food

experiments a bit. The couple has achieved this by implementing a weekly meal plan. The vegetables they receive every Monday from the vegetable community they have just joined work as the starting point for this weekly meal planning.

In the case of Bente and Torben, experiments in shopping for and preparing food in line with their values – at times – effected a solidification of routines not in line with their values. As we just saw in the case of Jakob and Sohelia, the stress of experimenting can also result in implementing new kinds of routines, exemplified through the implementation of weekly meal planning. Values can be too exhausting to keep in practice – here, Jakob's dedication to experiments in how the household can come to eat more sustainably and more deliciously. Values do not precede practice – values are enacted in practice. But so is stress, for instance, paving the way for compromising values, the routine of a weekly meal plan, for example, to be enacted in the same go.

The inspiration for Jakob's food experiments comes from common everyday sources such as books and Instagram and from extraordinary events such as eating at restaurants that match Jakob's dedication to experimenting. The planning of a food-related event, a wedding, was on Søren's mind when we interviewed him as a representative of the household run by him and his fiancé.

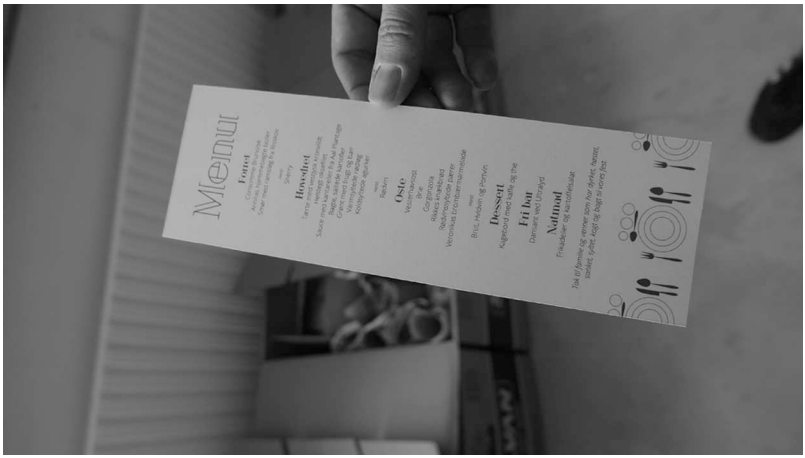
Events

Recently, Maja, 31, and Søren, 39, moved from a small apartment in Denmark's second-largest city, Aarhus, to a small town located in the Central Denmark Region. The area's beautiful landscape sparked the idea of moving: "5 years ago, I drove through the landscape and thought to myself: 'Shit, this is nice!'" Søren tells us. This move implies a change in the

material setting in which Søren does his food shopping. Søren explains: "In Aarhus, we subscribed to a bag of vegetables delivered every week. The bag was a point of departure for my food preparations. We were only two people then, and we were not good at planning our meals. We shopped almost every day. Also, to avoid packaging, we bought dry goods in a shop where you can bring your own containers. I miss the delicious supermarkets in Aarhus. I like to shop for food in supermarkets that give me aesthetic pleasure". Now, the couple is expecting a child. And, as hinted at by Søren, this demands a bit more planning. "Today I'm preparing apple porridge with apples harvested from the apple tree in our new garden. I'm going to put it in the freezer. Then that's ready for when the baby arrives", Søren explains.

When entering Maja and Søren's new home, we notice the flower and herb bouquets decoratively placed on their dining table. "Last night, we had a rehearsal dinner for our wedding. The flowers and herbs are all edible", Søren excitedly tells us.

Maja and Søren have decided that their wedding will be celebrated by gathering family and friends in a large scout's cabin in the scenic Mols Bjerge National Park. In their everyday lives, they focus on sustainable eating, and they bring this focus with them into the planning of their wedding. They engage family and friends in gathering, growing, pickling, and baking for the wedding party.



Søren's parents collect chanterelles at Ål Plantage in Oksbøl, a small town in West Jutland. Maja's brother will bring various berries from his garden outside of Aarhus. Maja's father provides fresh, home-grown vegetables and blackberries foraged in an area close to his home. The beef roast served as the main course is a product of the forest cattle that do nature conservation in the nearby national park. Maja and Søren have asked a local pizzeria to preserve glass containers, initially holding pickles, and donate them to the

wedding. A tea light is placed in each of them and spreads cosiness during the wedding party.

In Maja and Søren's everyday life, a pregnancy sparks new routines into being – with a helping hand from the fruits of the new garden's old apple tree. As we also saw in the case of Bente and Torben, establishing new routines is not a purely human or social feat. More than human actors – the fat content of a piece of lamb, for example – chime in as well. Like Jakob, Søren conducts experiments on where to buy what kinds of groceries. We learn that a focus on sustainable food consumption – a subscription to a bag of locally and organically produced vegetables and bringing your containers to a shop to avoid packaging – can go hand in hand with the enjoyment of entering a traditional supermarket designed to give Søren and aesthetic experience. Then, experiments in sustainable eating can be supported or disturbed by other everyday concerns – aesthetic pleasure being the example here. Food-related events – Bente and Torben mentioned visits from friends, their grown children, and their grandchildren, Jakob highlighted eating out with family and friends, Søren gave us a detailed account of the planning of the upcoming wedding – connect the specific food consumption practices of specific households to the specific food consumption practices of other specific households. We, the consultants, were not invited to Maja and Søren's wedding. And we, the consultants, do not have accounts of what happened at the wedding. However, Maja and Søren's specific way of planning their wedding does suggest that a wedding does not have to be "plug-and-play" at an expensive restaurant to be successful. They demonstrate to everyone involved how parties can be held more sustainably. Isn't the talk at the tables during the party going to be about just that – a more sustainable way of celebrating? At least some of the time, we suspect. And doesn't that talk give rise to new experiments and routines in more sustainable everyday food consumption among the guests and their households? At least in some of these households, I am sure.

Business–humanities collaborations caring for and taken care of by issues

In the preceding text, I have fleshed out how three Danish households seek to handle the issue of bringing into being practices of more sustainable eating and living. I have suggested that this handling takes place through routines, experiments, and events. Routines, experiments, and events in and through which humans and more than humans, values and practices, and the households of family and friends become entangled, and specific forms of material participation in sustainable living may be enacted.

In our, the consultants', final report, the first few pages are dedicated to an executive summary. We write:

> Transitions to more sustainable ways of consuming food are already taking place in organically-oriented households. That is good news for

> the new food concept! To contribute to the preserving and enhancing of not just Denmark's, but the Earth's biodiversity is regarded as extremely meaningful to all of our fieldwork interlocutors. The preserving and enhancing of biodiversity is by our interlocutors seen as part of the transition to living more sustainable everyday lives. The new food concept and its products thus meet households and everyday lives, where sustainability is already practiced through new routines, experiments, and events.

Unsurprisingly, the conglomerate was thrilled about this conclusion. Our issue- and practice-oriented household interviews also enabled us locate where, when, how, why, and with whom and what the ten households seek to enact sustainable transitions in their everyday practices. The supermarket, the kitchen, the farm shop, the restaurant, the internet, and the Danish natural and cultural landscape stood out as concrete settings – in all their socio-materialitiy and multi-speciesness – in which new kinds of routines, experiments, and events were imagined and brought to life. Thus, our recommendations to the conglomerate focused on how to bring the new food concept into these settings. While the conglomerate so far had focused on traditional storytelling – telling alluring stories to potential consumers about the history of the products in the new food concept – the households stressed that they would like more factual information about how the products are produced and why the food producers engage in the new food concept. This demand for more knowledge about "the hows" and "the whys" of the new food concept can be understood as a wish from the households to enrol this knowledge in their experiments in more sustainable living, which subsequently may lead to establishing more sustainable routines and events.

During the course of this consultancy project, the conglomerate was not the only business actors we encountered. The households interviewed made numerous references to farmer's markets and supermarkets, to food brands and restaurants, to social media companies, and food-related events and attractions. The households also made references to concepts and modes of analysis from our world, the world of humanities research. Some of our household interlocutors, for instance, discussed the wordings and the colours of the storytelling materials, turning the interviews into what resembled a class in semiotic analyses. Annette, 44, wife, mother to two boys, and living with her family in a townhouse in central Copenhagen, said about one paragraph: "It's incomprehensible – what is this all about? To me, this isn't clear communication!" Other household interlocutors engaged in philosophical discussions of the culture–nature divide requested clearer answers as to how the new food concept handles this divide. "Livestock and crops require people to be preserved. And if we then buy and eat these products, then we can create basis for further breeding and thus preserve biodiversity for the future.

That's fine – that's a good product!" Sofie, a single woman in her early 40s living in a small apartment in central Copenhagen, told us. She continues: "But they also mention nature's wild species. I don't understand it … Are the wild species living on their own in nature also endangered? Or do they do well in nature? What are the wild species in nature? Is it not possible that the wild species in nature need human intervention as well? And are there truly wild species in nature at all?" Sofie asks almost philosophically. Yet other interlocutors discussed with us which consumer segments the new food concept would be attractive to. For instance, a single woman in her late 40s living on her own in a house just outside of Copenhagen, told us: "I'm definitely part of the segment that the concept attempts to address. And I do think it's a good and important project. But when I see the flyer, I think it's something from the local pizzeria. That confuses me".

In the everyday routines, experiments, and events that the households interviewed engage in, the humanities and business not only meet. Concepts and modes of analysis from the humanities and business become deeply entangled in the handling of the issue of how to eat and live more sustainably. These entanglements – entanglements that we, the consultants, were drawn into – make it impossible to determine whether the present consultancy project was a humanities project of, for, with, in, or outside business. Instead, we started from the middle (Latour, 2005). That is, from how the issue of how participation in sustainable eating is enacted across the humanities, business, and many more actors, and we sought to find out when, where, and how the new food concept could come to support such enactments. In doing so, we empirically and analytically sought to care for the enactments of material participation already taking place in the ten households, and we, the consultants, were taken care of by the ten households' willingness to tell us their stories of how humanities and business interweave in their routines, experiments, and events of sustainable eating and living.

To practice what the issue-driven approach preaches

In closing the present chapter, I offer four practical tips intended to aid the humanities researcher keen to try out and, hopefully, develop further the issue-driven approach to collaborations between the humanities and business sketched out here.

Most collaborations between the humanities and business are organised as projects. Projects are defined by having a beginning and an end, that is, they are scoped, planned, executed, and accounted for. So, how does a humanities researcher take an issue-driven approach to the scoping, planning, executing, and accounting of project that involves the humanities and business?

Scoping: What is the issue?

When attending project scoping meetings with business, I urge the humanities researcher to suspend a priori assumptions about fundamental differences between the world of humanities research and the world of business operations. Such assumptions, as we have seen, nurture the position- and identity-driven approach, which – at best – led to collaborative projects where the value crated by the humanities researcher is one of tokenism rather than handling of issues of public concern. Instead, I recommend that the humanities researcher focuses on establishing what the project partners' shared issue of concern might be. This can be accomplished by asking the businesses to give a detailed account of their existing knowledge about how their products and services are made sense of put to use today by their customers and to what kinds of effects. Focusing on the production rather than consumption of the businesses' product and services works the same way: How are your products and services produced today and to what kinds of effects?

Planning: What is the research question?

The humanities bring concepts into the world that tell us something about humans as "thinking, creative, and acting beings" (Bille et al., 2019, p. 18, my translation). That is the object of study of the humanities – humans as thinking, creative, and active beings. Businesses, however, bring products and services into the world and these products and services aid or discourage humans to become thinking, creative, and active beings. Bringing the food items of the new food concept with us and into the homes of our household interlocutors, for instance, aided the human members of the ten households interviewed in thinking creatively and actively participating in making sense of developing further the new food concept. Humans are not thinking, creative, or active in an empty space – things and technologies, materialities and matters aid humans in becoming so. Therefore, when planning a collaborative humanities–business project, I suggest to formulate research questions that seek to answer when, where, how, with what, and why humans (and non-humans for that matter) become thinking, active, and creative beings, rather than making the premature assumption that this is the case always and everywhere. Taking an issue-driven approach to humanities–business collaborations, thus, entails formulating research questions that seek to illuminate on how humans (and non-humans, for that matter) become social and political actors in situated, socio-material practices and to what kinds of effects. In analysing these effects – and their "goods" and "bads" (see, for instance, Heuts and Mol, 2013; Mol, 2006; and Mol, 1999) – the analytical power of diverse disciplines within the humanities is utterly needed.

Executing: What's the collaboration?

Answering research questions on how humans become thinking, creative, and active beings is difficult to answer without inquiring deeply into the products and services produced by business. Such research questions, thus, lend themselves easily to collaborative empirical explorations and collaborative analyses of the empirical materials worked up through such explorations. To reap the fruits of an issue-driven approach, I urge the humanities researcher to invite the collaborators from business into the humanities researcher's practical work of gathering and generating empirical materials and the practical work of analysing these empirical materials. In executing the consultancy project, we, the consultants, only did so through meetings in which we discussed the advances of the project with a representative of the conglomerate. We did not, for instance, conduct parts of our fieldwork with the representative, and neither did we share our frustrations when we were not able to make analytical sense of the stories told to us by the households involved. We were preoccupied, which demonstrates that cultural analytical work does have something to offer. A preoccupation that is not in line with the issue-driven approach to humanities–business collaborations. I see a need for developing practical collaboration formats, which can bring humanities and business knowledge and competencies together in illuminating the forming and handling of issues of public concerns. Again, the argument is not to conflate the humanities and business but to enable better handling of issues of public concern together. This could, for instance, be achieved by importing and re-appropriating the methodologies from the field of co-design that subscribes to relational ontologies similar to the ones I have put to work in the present chapter (see, for instance, Escobar, 2018; Storni et al., 2015; and Latour, 2008).

Accounting: What's the story?

The story about the consultancy project that I have told here is not to be understood as *the* story about the consultancy project. I have chosen to tell *a* story about "throwntogetherness" (Massey, 2005, p. 181), and how this throwntogetherness was brought about and handled in the consultancy project. I could have told stories about "thrownapartness". For instance, the carving out of our object of study entailed heated and frustrating negotiations with the representative from the conglomerate as the representative had difficulties with the de-centreing of the human actors, which our issue-oriented approach entailed. Remember the quote by Melissa Cefkin in the introduction? Cefkin wrote that the aim of her edited volume was to expose the very complex conditions under which anthropologists in business work. My aim with this chapter has been related, yet different: I have sought to unpack the very complex conditions through which the

humanities and business may come to understand and handle issues of public concern better. The issue-driven approach yields issue-driven stories. Stories that focus less on differences in who or what we are, and more, and what we all – "we" in the broadest meaning possible – might be able to achieve together.

Conclusions

In the present chapter, I have sketched the contours of what I have termed an *issue-driven approach* to collaboration between the humanities and business. This issue-driven approach is necessitated by the fact that the humanities and business are already deeply entangled. Knowledge and concepts developed by the humanities are picked up and put to work by business, and, vice versa, it is difficult to imagine the humanities working and working well without aid from products and services produced and sold by business. While the prevailing position-driven approach to humanities–business collaborations seeks to disentangle the humanities form business, the issue-driven approach formulates and explores research questions on how such entanglements form issues of public concern and how such issues of public concern may be handled together. The issue-driven approach – its core workings – were developed through a consultancy project which was to formulate recommendation of how a new food concept can be scaled. To end the chapter – and to hopefully enable humanities researches to experiment with and develop further this issue-driven approach – I have formulated four practical tips for the humanities scholar entering into collaborations with business: gain insights on the effects of the production and consumption of the business products and services, formulate research questions are best answered together, find practical ways of letting the collaborating business into the workshops of the humanities, and, finally, consider to tell stories of thrown*together*ness rather than "thrown*apart*ness".

Notes

1 The assumption that it would yield the most useful analytical results to interview households who had a pre-existing interest in organically produced food items can be questioned. For instance, and as we will see in the analyses, some of the households questioned the connection between organic and sustainable farming. This questioning might raise another question, that is, whether this new food concept is – in effect – able to enrich diversity in crops and livestock in a (or at least the most) sustainable way? This points to material participation being situated in everyday practices where other kinds of concerns, for instance, that organically farmed produce may be better for human health than their traditionally produced counterparts, may trump sustainable eating and living. Material participation is not "good" always and everywhere – it "brings with it particular problems, aspirations and indeed ideals", Marres states (Marres, 2012b, p. 1). I do see it as a "good", however, to understand such problems better to enact more impactful modes of

participation in sustainable living. This goes for the humanities and for business and therefore the enactment of material participation can become a third space of collaboration (Muller 2007) for the humanities and business.

2 This deeply heteronormative attempt at representing different constellations of Danish households was not lost on us, the consultants, but we decided that this was not the time nor the place to fight that battle. Further, geographical location did not seem to have any significant say in the households' food consumption practices and their responses to the new food concept. In hindsight, to the aim of scaling the new food concept a more giving attempt at representation would have been to focus on diversity in how the households' food consumption practices are coded. As the analysis will show, we suggested that the new food concept relevant coding is whether the households' food consumption practice are primarily routinised, subject to open-ended experimenting, or driven by events. This analytical result stresses the importance of not mindlessly importing classic demographic variables into qualitative research, and it stresses the urgency of developing post-demographic approaches further (see, for instance, Mackenzie, 2016 and Rogers, 2009).

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9 Designing anthropological impact: How case-based teaching makes a difference

Simon Lex and Kasper Tang Vangkilde

Introduction

"Thank you for your attention. We hope that our insights can be useful in your future work with waste management in the municipality". With these words, anthropology student Halfdan ends a 12-minute presentation for a group of employees from the Waste Unit in the Municipality of Copenhagen. Together with 23 other students, Halfdan has in the past 12 weeks worked with the theme of "circular economies" in the public waste sector in Denmark. More specifically, with his fellow students, Johanne, Siri, and Ellen, he has explored the theme with the concept of "careful littering", which the group has developed in order to reframe waste handling as an act of care for the environment and, hence, a pleasurable activity. Although aiming at sharing applicable insights and perspectives with municipal employees, the students deliberately did not provide clear and instrumental solutions to the questions and needs raised by the municipality. Rather, they sought to explore the issue of waste handling in an empirical and critical way that essentially allowed them to deconstruct and reconfigure prevailing viewpoints and practices – and, thus, to open up to new ways of thinking, doing, and being. "[T]o change our understanding", as Gibson-Graham (2008, p. 615) has phrased it, "*is* to change the world, in small and sometimes major ways".

In this chapter, we describe how university-industry collaborations may unfold through case-based teaching. Drawing on our engagement in the above-mentioned course on applied anthropology on the bachelor's programme in anthropology at the University of Copenhagen, as well as our ten years of experience with external collaboration and real-life cases in teaching, we provide a hands-on description of how to organise applied or practice-oriented courses in anthropology and related disciplines. On this basis, three interconnected arguments are put forward. First, case-based teaching organised around challenges posed by actors outside the university train the students in critical thinking and constructive application as two sides of the same coin. Second, by so doing, the students provide value to the collaborating actors and the wider society by challenging established

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perspectives and practices by way of proposing novel ways of thinking, doing, and being. Third, and more broadly, this has particular subject effects as this form of teaching promotes a critical yet engaged kind of citizenship among the students.

To make these arguments, we begin by outlining the broader context of recent science policies that serve as a significant backdrop to our case-based teaching course. Then, we present our distinct approach to the course which draws much inspiration from design anthropology and the notion of ontological design. In the following section, we describe the organisation of the course in detail, emphasising the specific format, activities, and progression. This leads us to present the above-mentioned student project in more detail as an example of a case-based learning process that also contributed productively to the work of our collaborating partner, the Waste Unit. On this basis, we discuss the tensions and challenges involved in case-based teaching, including the anthropological impact made by the students. Finally, we conclude by linking our argument to the broader issue of humanities meeting business – or, in this context, students of anthropology meeting public organisations – in terms of the kinds of subject or citizenship being promoted by our approach to case-based teaching.

The entrepreneurial university and mission-driven teaching

In the past decades, European public universities have been subject to substantial and wide-ranging science policies. As Gibbons et al. (1994) emphasised in the 1990s, public universities have undergone a transition from mainly producing scientific knowledge within the echelons of the academic institution – what they term "Mode 1" – towards open collaborations beyond disciplinary and academic boundaries – what they term "Mode 2". By closely interacting with diverse actors from outside academia, not least commercially driven ones, public universities are in Mode 2 envisioned to produce "robust knowledge" of societal relevance (see also Nowotny, Scott, and Gibbons, 2001, p. 166). Although developed as a critique of this transition from Mode 1 to Mode 2, the Triple Helix policy model similarly expresses a transformation of public universities (Etzkowitz, 2008). The model envisions researchers and students who collaborate with external actors for the purpose of turning frontier knowledge into innovative solutions (Etzkowitz and Leydesdorff, 1997). With a systemic approach, the Triple Helix defines interactions between industry, university, and government as essential means through which to reach regional and national economic growth (Ranga and Etzkowitz, 2013). In this way, universities have expanded their dual responsibility of producing research and education with a "third mission", expected to bring about cross-boundary collaborations and innovative results (Loi and Guardo, 2015; Zomer and Benneworth, 2011).

Particularly, the term "mission" has recently gained much traction in science policies. In the wake of influential publications such as Mazzucato's *Mission Economy* (2021) and *Mission-Oriented Research & Innovation in the European Union* (2018), recent science policies support mission-oriented projects, which, according to Mazzucato, provide an opportunity, approach, and solution to both current and future societal challenges. The objective is to design missions of frontier knowledge production that enable bottom-up experimentation and systemwide innovation (2018, p. 4). Similar to the science models mentioned above, Mazzucato emphasises the importance of cross-boundary interactions between diverse actors and disciplines:

> The objective should be addressed by multiple actors, stimulating cross-discipline academic work, with a strong focus on the intersection between natural sciences, formal sciences, social sciences and humanities; collaborations across different industries; and new forms of partnerships between the public sector, the private sector and civil society organisations. (2018, p. 12)

Our own university is a case in point. During the past ten years, the management at the University of Copenhagen has initiated several strategies to enhance interdisciplinary research, external collaboration, innovative activities, and societal impact. Innovation consultancy units, centres for applied science, cross-disciplinary impact projects, hubs for student start-ups, and, recently, an innovation centre serving all faculties have been established. Furthermore, tech transfer officers have been hired to ensure intellectual property rights and licenses of new research discoveries, while innovation consultants have joined the university to facilitate and advance an entrepreneurial mind-set among researchers and students. During the past year alone, a new Green Solutions Centre has been set up to play a key role in shaping a sustainable future, and a new public policy centre has been created to solve societal problems through research and partnerships. Both of these recent initiatives are essentially borne out of, and indeed expected to feed into, the impact and mission-oriented agenda outlined above. University of Copenhagen thus pursues various strategies to strengthen its ties to the wider society and prove its value; most clearly epitomised, perhaps, in its current catchphrase on posters around the city: *til gavn siden 1479*, meaning "impact since 1479".

The effects of recent science policies on the development of public universities have not gone unnoticed, of course, by the scholars within them. Wright and Shore (2017), for instance, ask the critical question of whether the development of higher education, with its emphasis on commercialisation, entrepreneurship, efficiency, usefulness, and related ideas, will ultimately entail the death of the public university. As a powerful metaphor for the state of public universities, they draw on the term

"zombification", developed by Whelan, Walker, and Moore (2013), to stress how "the public university today exists in a state of chronic fragility, servitude and uncertainty that has left it if not 'dead', then permanently moribund and drained of autonomy and agency" (Shore and Wright, 2017, p. 18). In a related discussion, Krause-Jensen and Garsten (2014) likewise emphasise how universities are increasingly organised as private companies, focusing on "research that can be converted into a revenue stream" (p. 1). While this, according to them, may lead to institutional uniformity and harmonisation (p. 2), it also affects higher education in terms of promoting novel modes of learning (pp. 2–3).

Although such critical discussions of the commodification and corporatisation of public universities are indeed imperative, our intention in this chapter is not to assess the recent development of public universities. However, the critical reflections are important, not only because our case-based teaching is evidently embedded in this development but also because the critique has informed how we have aimed at maintaining traditional academic virtues – such as rigorous analysis, conceptual clarity, and critical reflection – while also pursuing open collaboration, mission-oriented agendas, and societal impact. Our intention, in other words, is to demonstrate how contemporary science policies that stress applicability, impact, missions, and collaboration may be turned into practice in university teaching. As such, we seek to contribute to what may be an emergent field of case-based teaching in the humanities by drawing, in particular, on the field of design anthropology, including a reorientation of the design concept. We turn to this now.

Design anthropology and ontological design

We are, of course, not alone in having developed case-based teaching in the humanities. While the use of business cases and case competitions is widely recognised as valuable educational activities in business schools around the world (see, e.g., Burke, Carter, and Hughey 2013), as well as problem-based learning, has long constituted an established pedagogical practice (see, e.g., Moallem, Hung, and Dabbagh, 2019), the integration of real-life challenges into the teaching of anthropology and cognate disciplines has been much slower. In the Danish context, however, the past decade has seen a number of new educational initiatives introduced with a special emphasis on stakeholder collaboration, applied cultural analysis, and interdisciplinary approaches such as techno anthropology and design anthropology (see, e.g., Jensen, 2013; Jespersen et al., 2012; Halse, 2013). This development has clearly gained traction in the wake of distinct political agendas, not least a strong focus in the 2000s on users and user research in innovation projects (Damsholt and Jespersen, 2014), but it also relates to a broader dialogue between design studies and human and social sciences that has emerged in the past decade.

A significant outcome of this dialogue is the emergence of a distinct field of design anthropology (Gunn and Donovan, 2012; Gunn, Otto, and Smith, 2013; Smith et al., 2016). While anthropology has traditionally been focused on description and analysis, based on ethnographic studies of the present and, to some extent, the recent past, design has essentially been interventionist and future-oriented, "aimed at changing existing situations into preferred ones", as Simon's (1996, p. 111) oft-quoted definition has it (see also Hunt, 2011; Otto and Smith, 2013). In this tension between the conventional orientations of anthropology and design, a key ambition in design anthropology is to develop a disciplinary exchange – or, as some argue, even a disciplinary hybrid – which constructively combines open-ended anthropological explorations of the present with designerly articulations of new possibilities in the future.

The field of design anthropology consists, however, of several distinct-yet-overlapping approaches and objectives. Overall, it is possible to identify four main types of relations between design and anthropology, as the former may constitute for the latter an object of critical inquiry (that is, anthropology *of* design), a field of practical engagement (that is, anthropology *for* design), a model for disciplinary rethinking (that is, anthropology *as* design), and an opportunity for interdisciplinarity (that is, anthropology *with* design) (Escobar, 2017; Murphy, 2016). Although these relations differ, it is a key point that their differences notwithstanding, design and anthropology converge around the human capacity to inquire into the possibilities of human life and, thus, to propose other or new ways of thinking, doing, and being.

In this way, a reorientation of design has emerged at the intersection of social theories and design studies, displacing the focus of design from material objects and solutions to its world-making capacities. As Escobar (2017, p. xvi, references omitted) so eloquently puts it: "Between 'the life of form' and 'the form of life' an entire design space opens up". Or, to quote Verbeek (2012, p. 163), "in practices of design […] human beings do not only give shape to their material world but also to their own existence". In other words, design is essentially ontological in that it stakes out particular directions into the future that impact and shape ways of being. The notion of ontological design thus builds on this double movement; "namely, that we design our world, and our world designs us back – in short, design designs" (Escobar, 2017, p. 4). Importantly, it follows that the notion invites us to both recognise and develop how design may serve to reimagine and reconstruct local modes of living and being (Escobar, 2017). Anthropology feeds into this endeavour, we contend, not only because anthropologists by way of fieldwork seek to learn from and understand those local modes of living and being, but also because they, by so doing, speculate about the *possibilities* of life and, thus, "speak" new worlds into being, as Hastrup (1989) once put it.

While the notion of ontological design and the convergence of design and anthropology may perhaps seem a little grandiose for a teaching course

on a bachelor's programme, it nonetheless forms the backbone of our approach to case-based teaching. To recap, our aim was to train the students not merely in exploring questions and challenges posed by external partners but in rethinking and reconfiguring prevalent assumptions and actions – and, thus, in allowing for new possibilities or modes of being to emerge. We describe the specifics of our approach in the following.

Applied anthropology and case-based teaching

As coordinator (Simon) and teachers (Simon and Kasper) of the mandatory course in applied anthropology, we have both been highly engaged in coordinating, teaching, facilitating, and evaluating all course activities, from early preparations to final exams. With the ambition of documenting the design anthropological, case-based teaching course, Simon has written ethnographic notes during the first two introduction weeks and the following 12 project weeks. During the latter, Simon moreover conducted a form of participatory observation by systematically following seven student projects involving 24 students, who all worked on issues related to circular economies and waste systems. Finally, the teaching group consisting of six anthropologists has held ongoing "touch-base meetings" during the course, which have also been described in written notes by Simon, emphasising shared discussions and reflections on core elements such as student projects, class structure, collaboration with external partners, extraordinary conditions forced by coronavirus lockdowns, and applied dimensions of anthropology as a discipline. In addition to these engagements, observations, and documentation, both of us have approximately ten years of experience with developing and teaching case-based courses in anthropology at Aarhus University and University of Copenhagen, which have guided not only our design anthropological approach to case-based teaching but also the argument in this chapter.

Course format and case challenge

"Applied anthropology", a course on 15 ECTS, included all students on the fourth semester on the bachelor's programme in anthropology. The ambition of the course was to give students an opportunity to use their anthropological competences when exploring a concrete case challenge posed by an external organisation. In this sense, the students were to apply the methods, theories, and analytical approaches from their first three semesters with the purpose of delving into a contemporary societal challenge. The classes were taught by six anthropologists, of which four were internal scholars and two external professionals, which had been set up in this way in order to ensure that lectures, supervision, and facilitation could draw on experiences from both inside and outside academia. The learning process unfolded over 14 weeks with 28 teaching sessions of three hours, beginning

with two introductory weeks where all 69 students participated and formed project groups consisting of three to five people. The students were then divided into three relatively independent courses, each concerned with a specific case challenge posed by an external partner within the themes of food, health, and waste, respectively. These courses unfolded over 12 weeks in four stages: (1) case challenge and problem statement, (2) fieldwork, (3) analysis and ideation, and (4) dissemination.

In this chapter, our analysis and discussion lean primarily on the waste challenge, which was posed by the Municipality of Copenhagen. Entitled "From waste to resource", the case concerned themes such as waste management, recycling practices, and the circular economy. The ambition of the municipality was to understand, map, and upscale "good waste practices" performed by younger citizens in Copenhagen. In particular, they asked the students to explore the following questions: How do citizens experience their daily handling of waste? How can the municipality support recycling for different types of waste? What makes citizens experience something as a resource and not as waste? What does a good waste room contain? And how does the surrounding environment influence the citizens' handling of waste?

Preparation and coordination

The teachers' preparation started during the autumn of 2020, months before the first class in the beginning of February 2021. The first task for Simon, as coordinator of the course, was to establish a team of six teachers. He reached out to two colleagues in his department, Kasper and Jane, who both had experience with teaching case-based and practice-oriented courses. Having accepted the task, the three teachers recruited a PhD student and two anthropologists working outside the university. Then, they partnered up with three organisations, which turned out to be a manageable task as anthropological competences and insights are commonly viewed as valuable by many public and private organisations in Denmark. The organisations were the Danish Alzheimer Association, the retail corporation Coop, and the Municipality of Copenhagen. In this process, it was crucial to ensure that employees at all organisations were willing to spend time on a range of activities such as, for instance, to participate in an introduction meeting with all students, to facilitate contact to interlocutors in the organisation, to take part in a status meeting halfway through the course, and to engage in a final three-hour seminar with student presentations.

Having reached an agreement with the organisations, two teachers then teamed up with one organisation with whom they formulated the case challenges. These challenges were presented to the students during the first introduction week in both written material and video presentations. Later, the same two teachers were responsible for developing and teaching the design anthropological stages (see below) linked to the case challenge. The

classes were divided into lectures introducing relevant case material, theoretical concepts, collaborative work in project groups, seminars across the project groups, and meetings with the organisations. Thus, the teachers took on the roles as lecturers and facilitators in that class teaching was continuously combined with project work. Before initiating classes, the teaching group held two coordination meetings in which Simon introduced the ambitions, structures, methods, and practicalities of the course. This was followed by ongoing "touch-base meetings" in which all teachers addressed experiences and issues of concern.

Phase 0: Introduction (Weeks 1 and 2)

All the students started with two introductory weeks of four teaching sessions. In this phase, the students were introduced to applied anthropology and design anthropology; they received a lecture on digital methods and they learned about collaborative work in short and intensive anthropological projects. After being introduced to the small videos and the written material from the partner organisations, all students sent an individual e-mail to Simon stating which of the three case challenges they would prefer to work on. Simon then divided the students, firstly, into the three overall sub-courses connected to each of the case challenges and partner organisations and, secondly, into project groups of three to five students.

Phase 1: Problem statement and project design (Weeks 3 and 4)

During the first week, the students met online with employees from each organisation. For the students collaborating with the Waste Unit in the Municipality of Copenhagen, the meeting focused on the case description, mutual expectations, fieldwork activities, and, more generally, the organisational strategies and procedures in the municipality. Although being in the middle of the coronavirus lockdown, the meeting on the digital platform Zoom provided the students with detailed information about the case challenge, which they could use in the formation of their projects. The meeting thus served both as a data source and as an opportunity to get access to other interlocutors in the municipality. It was, in other words, the outset for the coming project weeks as the students reflected critically on the case description, developed an anthropologically informed problem statement, designed fieldwork activities, and took initial contact to interlocutors in the Copenhagen area. In parallel, they spent time on aligning how they were internally to collaborate during the next 12 weeks. As an output, the students handed in their first portfolio assignment (five pages), containing a problem statement and related research questions, as well as a project design outlining methods and activities, work division and roles, and considerations about possible ethical implications and data management.

Phases 2 and 3: Pilot studies and fieldwork (Weeks 5–8)

During the first class in the second phase, each group of students had a 20-minute status meeting with the two teachers. The students received feedback on their written portfolio assignment, followed by a dialogue about the upcoming activities. In parallel, the other groups prepared their fieldwork activities and secured access to relevant field sites in Copenhagen. Then, during weeks six, seven, and eight, the students conducted their fieldwork, consisting of semi-structured interviews with relevant citizens, participatory observation in outdoor waste environments, informal talks with people in public spaces, quantitative surveys on digital platforms, and focus group interviews with professionals in primarily the Waste Unit. The coronavirus lockdown continued throughout the pilot and fieldwork phases, which meant that the students also developed online tools such as, for instance, digital diaries for interlocutors to describe their waste practices in pictures and instant messages. They used video calls on smartphones to digitally "shadow" people when performing waste practices in their private homes or when using outdoor waste spaces. Although conducting ethnographic fieldwork proved somewhat difficult in an extraordinary situation of physical distancing, all groups managed to develop a solid data foundation for their analysis and ideation. The empirical data and reflections on the project progress were finally described in the second written portfolio assignment (five pages).

Phase 4: Analysis and ideas for actions (Weeks 9–11)

After their fieldwork and the feedback from teachers on their second portfolio, as well as after a halfway meeting with the gatekeeper in the municipality, the students began to analyse their empirical material. To this end, the teachers had presented online video lectures during the course, introducing both theoretical concepts from anthropology and other disciplines and empirical examples concerning themes such as circular economy, waste systems, sustainable communities, green living experiments, and organisational change. The idea was to inspire the students to pursue new insights and ideas relevant to the problem statement, case challenge, and disciplinary background. By reaching new understandings of, and perspectives through, their analytical work, the aim was to build a solid platform for new ideas and designs for actions to emerge. Having worked with mostly practical components such as the case challenge, fieldwork, and empirical data, the students found it challenging to shift to a more analytical mode. Yet, as we shall elaborate on in our analysis and discussion, the students managed to create analytical insights and develop them into design proposals for new initiatives and actions to be taken in the municipality. This was the focus of the third written portfolio assignment (seven pages).

Phase 5: Ideation, dissemination, and project reflections (Weeks 11–14)

Having once again received feedback on their written portfolio assignment, the students were now tasked with creating visual presentations of their key findings. To this end, an external anthropologist working in a consultancy in Copenhagen shared his insights on how to develop compelling, reliable, and practice-oriented "pitches". The students turned their descriptions and analysis into oral presentations of 12 minutes (the fourth portfolio), which they then presented to the employees in the Waste Unit during a three-hour Zoom seminar in week 13. Importantly, each of the 12-minute presentations was followed by a 10-minute dialogue between the employees and the students. After the presentations, the students finalised the course by composing individual reflections (the fifth portfolio) on their design anthropological work, concerning such themes as digital ethnography, collaboration in projects, and application of anthropology to problems posed by external organisations.

Post-course: The exams

Two weeks after the final class, the students handed in three deliveries as their exam: (1) all their written portfolio assignments (project design, fieldwork report, analysis, and reflections) in revised form, (2) a video recording of their oral presentations (the fourth portfolio), and (3) a short visual presentation of their key insights and conclusions. The exam, thus, contained both written and oral deliveries that were to be assessed by the teachers and two external examiners. Three weeks after the deadline for handing in the exam, the teachers and the external examiners met online to assess and grade the exams, followed by an online opportunity for the students to receive verbal feedback on their overall performance.

Case-based teaching in action and "careful littering"

Having outlined the structure and progression of our approach to case-based teaching, inspired by the attempt in design anthropology to combine open-ended anthropological explorations and novel design proposals, we now turn to a concrete student project on "careful littering" in order to more clearly elucidate the impact achieved in and through the design anthropological learning process.

"We have decided to focus on people's careful handling of waste", Johanne explains at our first status meeting in the second week of the course. "The meeting with the municipal actors made us reflect on the values of handling waste in the city, … [and] we want to examine how public spaces can be turned into environments for careful waste handling". While curiously following our response, Johanne elaborates that the group

will investigate the relation between humans and waste through the concept of care. Ellen and Siri, who are part of the group, add that the project concerns the fact that the municipality is commissioned to set up 750 new sorting points in public spaces in Copenhagen. "We think that it is interesting to see if waste handling in the city could go hand in hand with a sense of care for the environment", they say. Ellen looks at Halfdan, another member of the group, who explains that they understand waste handling as influenced by both social values and material infrastructures. Halfdan concludes: "You should treat it [waste] as something useful, you know, as we talked about in the meeting with the municipality … Waste as a resource … We need to take better care of our resources".

To explore the idea of careful handling of waste, the group conducted fieldwork over a period of four weeks, including semi-structured interviews, focus group discussions, and participant observation in public spaces in Copenhagen. In interviews with citizens living in Copenhagen, several interlocutors explained that they defined and handled waste in streets and parks quite differently from their private homes. A young woman, for instance, said:

> It is as if it is very different in private homes. There, you care about waste and you do it. But in public spaces, you don't do anything. It is like different social rules apply here.

With this insight in mind, the students initiated their participant observation by going into the streets of Copenhagen, with the ambition of reaching an understanding of the "social rules" of waste practices in public spaces. During their fieldwork, they repeatedly observed how people did not seem to notice the waste lying around in streets and parks. The students therefore suggested that waste had become a natural component of the public space, meaning that people were simply not conscious about litter in streets and parks. This, the students argued, was a key reason for why people, although perceiving waste as an important environmental concern, did not do anything about it such as, for instance, picking up the litter right in front of them. These observations led the students towards the question of how they could, so to speak, open people's eyes to all the waste scattered in public spaces, and thereby change their attention and practices towards it.

In parallel, the students also participated in two waste collecting events, organised by the Danish Society for Nature Conservation and an NGO called *Skraldefest* (literally translating into "Waste Party"). During the events, the students talked to participants who perceived the act of picking up waste on various scales; for them, it represented simultaneously a protective and careful concern for parks and streets in the city and an opportunity for participating in actions linked to a broader green transition of society. The students thus took note of how the participants aligned a more general concern and care for the planet with a specific ambition to clean up

the city through waste collection practices. Furthermore, they experienced recognition and gratitude from people they randomly met during their waste collection; for instance, a passing jogger who declared his support by shouting "good work", while others shared an encouraging "well done". Likewise, when allowing a young man to throw his litter into their sacks, he folded his hands and bowed, followed by an appreciative "thank you". The students thus became aware of how the participants, including themselves, turned not only their own but also other people's attention towards the issue of waste collection in public spaces. With a black waste sack in their hands, they now detected all the waste that they had not laid their eyes on before. Importantly, this "awakening" did not lead to an increased concern as it, in a sense, happened in the act of finding a solution to the very same problem. The students explained that, after the events, waste in public spaces still seemed to "catch their eyes", which they encapsulated in a quote from one of the organisers: "once seen, it can't be unseen". Finally, the students concluded that "awakening events", such as waste collections, could open people's eyes and give them an incentive to do something; not just about their own waste, but also about litter discarded in streets and parks by others.

Framing this as "careful littering", the students presented these ethnographic insights to employees in the municipality, recommending them to design and introduce awakening events and infrastructures which would engender a re-objectifying of unnoticed waste. Besides proposing that the municipality should thus support events that engage citizens in public waste collections, they furthermore outlined an idea, by way of visual sketches (see Figure 9.1), of making existing waste options more visible through unconventional designs and colours, thereby materially reminding people of the importance of throwing out waste in garbage cans. In this way, the

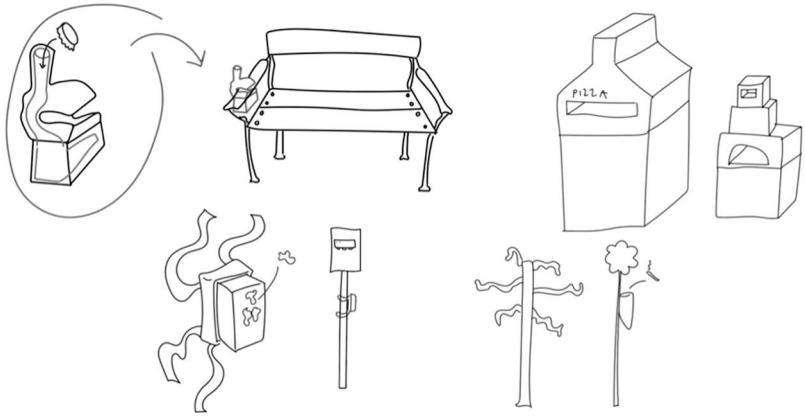

Figure 9.1 Sketches of unconventional garbage cans developed by the group.

students combined anthropological insights and designerly proposals in their recommendation to facilitate both social events and material infrastructures that would re-objectify waste and waste handling practices – and, by implication, generate new modes of "seeing" and "doing" waste in public spaces in Copenhagen.

Collaborative tensions and anthropological impact

While the above description of the student project may appear rather frictionless, it was not, of course. Tensions and challenges arose continuously, particularly because of the often differing ideas and purposes of a university and a municipality, respectively. As such, our case may be seen as an empirical window into some of the complexities and intricacies of the encounter between higher education and public organisations – and, more broadly, between humanities and business (broadly understood). In this respect, it should be noted that the collaboration involved no money or business contract, which may seem as a minor detail, but which has major importance in terms of responsibility and authority. The conditions framing the collaboration were based on mutual interests and potential gains for both parties, meaning that students as well as municipal actors were free to influence the projects in certain directions while also having to take account of each others' concerns in order for the collaboration to be of value. Negotiations and alignments, in other words, were an intrinsic part of the process, not least when tensions arose. In what follows, we discuss the most significant tensions which revolved around the question of making an impact.

From the perspective of the municipality, an idea of knowledge production in higher education as mainly driven by internal disciplinary discussions and theories soon caused Phil, our collaborating partner in the Waste Unit, to worry. In particular, he expressed a concern about what, "in his world", would be seen as too many abstract ideas and a lack of focus on applicable solutions. The students, on the other hand, worried rather about the opposite: that the municipal focus on solutions would mean that their projects would develop in predetermined directions, thus compromising the open, exploratory nature of anthropological research. For Simon as teacher, it was, therefore, pivotal to explain and insist on the anthropological approach in meetings with Phil, while also encouraging the students to see the expectations of the municipality as empirical data which could help them to understand the organisational dynamics and value criteria in the organisation. The encounter between the differing approaches and objectives of university students and municipal actors thus required the teacher to take on a mediating and aligning role.

For the students, tensions moreover emerged in relation to the course requirement of translating their anthropological insights into a practice-oriented oral presentation with design implications. Faced with the

challenge of developing a vocabulary suitable for the work of the municipal actors, some of the students found the dissemination to be a "reduction" of their anthropological knowledge, as it necessarily had to leave out certain questions, insights, theories, and other considerations. Although insisting on training the students' abilities to disseminate their work in ways that was understandable and meaningful to municipal actors, the teachers stressed that the presentations were not to be viewed as final solutions. Rather, they should serve as "invitations" or "openings" to constructive dialogues, being not operational solutions, but novel perspectives that might inspire the municipality to rethink and redesign existing practices and systems. By understanding the students' insights and results as a kind of prototype – that is, as indefinite and open-ended (Jiménez, 2014) – the collaboration thus progressed as a joint exploration of both present and future waste handling in the municipality and beyond.

In fact, in the concrete encounter between an insistence on academic virtues and an urge for practical usefulness, what seemed to provoke interest and curiosity, as well as new questions, among the municipal employees, was particularly the invitation to understand and approach waste systems and practices in hitherto unprecedented ways. Immediately after a student presentation, for instance, an employee responded with excitement:

> One of your first insights was really interesting; the one about the black box where you identified pleasure as an aspect that stimulates waste handling. I would like to hear more about that … It's something that we have never thought about before, and it would be exciting to see if we could explore this aspect of pleasure even further.

A student from the group responded that the aspect of pleasure was closely linked to an overall ambition of making the world a greener place to live. She added that, although being dirty and smelling bad, the act of collecting waste in private homes, and seeing it accumulate in the waste bin, was broadly perceived as satisfying because it represented an answer to a general concern about pollution and climate changes. Demonstrating a pleasure in collecting litter and seeing waste handling as an act of environmental care thus induced a creative and "useful" exchange between the students and the employees. Later, Phil enthusiastically wrote to Simon that the ideas and concepts developed by the students were now articulated and referred to by his colleagues in their everyday work with designing new ways of handling waste in Copenhagen.

As such, what triggered excitement and proved to be of value was not fixed solutions to pre-defined questions posed by the Waste Unit. Rather, the students reflected critically on the case challenge, developed their own problem statement, explored it by way of fieldwork, analysed the empirical material, and presented insights and recommendations which, like prototypes, did not confirm, but opened up commonplace understandings and

practices. By bringing anthropological explorations of *present* circumstances and designerly articulations of *future* possibilities into dialogue, the students thus proposed new perspectives on how to perceive, act, and be in a world with increasing amounts of waste. The unfinished, prototypical, and fluid nature of their proposals engendered a creative space, not only for jointly discussing them, but also for adjusting and modelling them into existing systems, projects, and ideas in the municipality. Being neither fixed solutions to practical problems (as often associated with "business") nor merely critical reflections on a complex issue (as often associated with "humanities"), the ambition was to foster and encourage a critical approach of reconfiguring extant modes of thinking, doing, and being – what we, following Escobar (2017), have termed *ontological design* – which would have significant impact on waste handling. In a nutshell, what emerged was critical thinking and constructive application as two sides of the same coin.

Conclusion

In this chapter, we have provided a hands-on description of a distinct approach to case-based teaching as a way to organise practice-oriented courses in anthropology and allied disciplines. While positioned within a broader context of contemporary science policies, which highlight open collaboration, mission-oriented agendas, and societal impact, we have argued for an approach that encourages students to critically yet constructively deconstruct and reconfigure prevailing understandings and practices. More specifically, the students are urged to bring together open-ended anthropological explorations and design proposals for new modes of acting and being in the world. Approaching the students' insights and recommendations not as tools and solutions, but as fluid and open prototypes allows for the students and their collaborating partners to jointly explore and discuss novel perspectives and procedures, as well as to integrate them into existing systems, projects, and ideas. The students thus adopt a critical yet constructive approach by way of reconfiguring prevailing ways of thinking, doing, and being, which may lead to innovative impacts in and for society.

In response to the urgent need for new perspectives on current and future sustainable societies, we contend that such an approach is crucial to challenge and rethink existing orders, logics, and procedures. Unlike political actors, public organisations, and private corporations, academic researchers and university students are in a particular "fringed" position for proposing and designing ontological reconfigurations in concrete domains of contemporary societies. This means that collaborating with public and private actors in an exploration of societal challenges or missions may engender a learning process in which academic virtues and ethics – such as empirical commitment, rigorous analysis, and critical reflection – are put to use and have impact in collaborative, creative, and societally engaging ways.

Finally, this links up to a significant question posed by Shore and McLauchlan (2012, p. 282); that is, "what kinds of subject or 'citizenship' are being promoted by university entrepreneurialism?" In our approach, we believe that case-based teaching essentially trains the students in openly and critically exploring key societal questions with the aim of contributing actively and constructively to them. As probably any form of education, it has subject effects in the sense that education, as Ingold (2018) argues, is not about transmission of authorised knowledge but a way of attending to things. Following this argument, our hope is to inspire the students to explore and rehearse how they may act as critical yet engaged citizens who share and perform their anthropological insights and ideas to a variety of actors in society, with the purpose of proposing and designing new sustainable ways of being in the world.

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10 The AIM method: Bringing teaching, research, and business together in authentic industry mega-cases[1]

Mie Femø Nielsen

The pedagogical challenge – A personal narrative

When I first taught a team of college students in 1994, I was basically an over-prepared content provider. I was the expert who gave presentations, answered questions, and chaired a discussion. I spent a lot of time preparing to the teeth to be able to answer questions that were never asked. Later, the exam papers surprised me. Some of the quiet students who had not said a word the entire semester now wrote high-level papers. I wondered what I could do to make them feel at ease with contributing to our class discussions. Other students had not put in any work during the semester, but in the final sprint put maximum energy into writing a good exam paper. I wondered how I could make them see that the written assignment was not the only outcome.

Such considerations led me to begin experimenting with my teaching role, and I began to see myself as someone who should create and facilitate a reflexive and dynamic learning space. On most of my university courses, I began working on a large, common case. I began in 1998, and over the years I have developed the format (Nielsen, 2014, 2015) into different types, often collaborating with business partners. Thirty-eight courses later, my department chair wittingly encouraged me to "clone myself" with respect to this method, and today more than a handful of colleagues in my own department alone work with this method, and they have, of course, made their own experiences and iterations of the format.

This chapter presents a case methodology (AIM) that I have developed, the pedagogical rationale behind it, and some of the many design features that originate in the many years of prototypical testing of features and adjusting of the format. The case method is presented as a concept; the pedagogical rationale is outlined and discussed. Finally, the societal contribution from the humanities is considered.

Data and methodology

Data for this paper are twofold, participant observation and a small survey. I have 25 years of participant observation, and de facto action research, in

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working with case-based teaching. The paper will draw on the observations and adjustments made in developing the methodology. Many students have raved about the method, and over the years I got the impression that the casework benefited the students on several parameters. To verify that impression, I created, in collaboration with an assistant, a questionnaire survey to all students of 14 of the courses where the mega-case form had been used, not counting courses applying other case concepts and of course also not courses conducted after the survey was made. The purpose of the survey was to explore attitudes to and effects of the case method for students. The assistant tracked as many students from each course as possible using old class lists, e-mail lists, and course rooms on various intranets and group rooms on social media. Sixty-eight percent of the 113 students that were tracked down answered the questionnaire. The assistant executed the practical survey via Survey XACT, and this was done to ensure anonymity for the students and the arm's-length principle in relation to me as a teacher in case some of them were still enrolled in other courses. In this paper, findings from the survey are briefly presented when relevant in connection to the discussion of the concept as "the AIM survey". The survey is so small that it is only used as a companion to the personal narrative.

What is an AIM case?

Case-based teaching is fairly new to the humanities, and not much research has been done on it. However, case-based teaching (CBT) is widely used in natural sciences and medicine, and at business schools and parts of social sciences. What defines "a case" is very different. In medical school, it may be a patient that the students are taught how to treat, in business schools it may be a textbook narrative of a named or anonymous company's leadership challenges, and in technical science and many other faculties it may be a challenge that a company formulates and that the students compete in offering the best solution to (case competition).

An authentic industry mega-case (abbreviated AIM) is different from these. Central to the AIM courses is that (close to the entire) syllabus and teaching hours are linked to an academic challenge, which is formulated as a case, and which can integrate theory and practice. The AIM method differs from other case methods in several ways. It is always a specific issue that a business partner currently has, never a textbook case or a hypothetical example, never an old issue or an archived case. It is also different from the Case Study Method developed at Harvard Business School where all 90 students in each class read a new case text before each class and participate in a class discussion of it, eloquently facilitated by a teacher.

The results of the AIM work must be used for something by someone to succeed in something important. It is always a very big case; so large that a single student or a small group of students cannot solve it themselves, and not at all in the 11–15 weeks they (in my courses) typically have during a

semester for actual casework. It is a team effort for a whole class of 15 to 40, or in rare cases, even 80 students. Often the challenge is so difficult that the business partner has had the problem for years without solving it.

The AIM is applied to a range of different courses and the students come from different parts of The Humanities, but they usually study Danish or other languages, communication, culture, media studies, rhetoric, history, or pedagogy. It is *never* the point that the students compete to give the best bid for a solution. On the contrary, a key point is that they use their different backgrounds and collaborate with each other and with the business partner. The students work in different teams, each of which is responsible for different elements of the case, and they work with the other teams inside and outside of class to achieve the common goal. The staffing of the individual teams is decided in plenary (using open space method and teacher's estimate of the workload in each group task) so that there is a match between staffing and task size.

Examples of AIM challenges have been to "explore cultural challenges between employees in different locations of a large global corporation and suggest solutions to them"; to "create an employer branding strategy for an international corporation aiming at recruiting professionals to academic jobs in rural areas"; or to

> organize a virtual workshop for a large municipality, with a large group of stakeholders and experts participating, with the purpose of preparing a study of elderly people's willingness and capabilities in using digital communication with healthcare professionals as well as with other elderly people.

Because the casework is so academically demanding, the students need to read the syllabus to be able to work productively with the case. If the students, for example, are to develop a branding strategy, they need to read about identity, storytelling, branding, stakeholders, and issues management. That ensures the common preparation and professional frame of reference.

Why casework?

The learning objectives on courses working with AIM may differ. It depends on the course and curriculum. Given the AIM, the teaching does not focus on the declarative, abstract, and conceptual alone, so that the students primarily become good at, for example, classifying and deducing, but must also focus on function and practical application, so that the students are equipped to apply the curriculum in their own professional practice (cf. Leinhardt et al., 1995). The challenge presented to the students fosters problem-based learning, which makes the subject more application-oriented because theories and concepts are associated with experience and practical problem-solving (cf. Boud, 1985, 1997; Biggs, 2003). The very

combination of concrete experiences and active experiments with reflection on observations made during interactional cooperation and abstract conceptualisation provides a strong learning cycle (Kolb, 1984) because the theory is applied, the practical is conceptualised, and the reflection matures the ability to observe and act. This form of learning can be so intense that students often get into a state of flow (Csíkszentmihályi, 1996) in their group work.

Therefore, AIM serves purposes beyond the course itself. The students are trained as professionally reflective practitioners to make intelligent choices in complex situations and reflect on their own practice (Kruse, 2006; Schön, 1983). They are equipped for double-loop learning (Argyris and Schön, 1978) and enact (Weick, 1988) themselves as reflexive practitioners in developing practical solutions by applying that theory. The courses are also inspired by experience pedagogy (Negt, 1975) that has shown the value of linking to the participants' own practical experiences and then using the theory to put them into a new framework that creates new insights for the participants. By working with authentic challenges, the students realise that "theory" is indeed very practical and not something they leave behind them when graduating.

The AIM courses apply situated learning because many things are best learned in communities of practice by working together on a specific task with someone else who is more proficient (Lave and Wenger, 1991), i.e., the teacher and the professionals from the business partners. The AIM further gives the students a safe environment to do that because they are allowed to fail and learn along the way (because they do it in class and supervised by a teacher), and they gradually *grow into* a small community of practice (because they define their forms of collaboration along the way). They develop a practice of learning as well as a community of "novice practitioners" working together to create value for business partners.

- 92% of the students surveyed thought the mega-case format was a good idea (the AIM survey). That says something about student appeal; one can confidently offer courses with that format.
- 75% of the students felt that they had subsequently in their professional working lives worked with challenges similar to those in the case and could apply their acquired competencies to them (the AIM survey). It shows that the casework succeeds in addressing authentic business issues and matching them with relevant, academic efforts.

A very important aspect of the students in the process of working on the AIM with its complex and thus difficult tasks is that they gradually (happily) embrace these difficulties instead of treating them as obstacles (Salvatori and Donahue, 2004) or kinds of out-of-reach professional goals.

Finally, the fact that a teacher and a business partner provides a large and professionally ambitious challenge in relation to their learning objectives

also shows students that someone superior to them trusts them and their capabilities. That contributes positively to their individual identity projects, and they become dedicated to learning and applying their learning to the solutions they work on. When the teacher, with the authority as a teacher, shows students confidence that they can solve the task, then they will also mirror the trust shown them by committing to and embracing the ascribed positive identity (cf. Luhmann, 1999; Gergen, 1994; Giddens, 1991) of an excellent student creating value for academia as well as business. I always begin the semester by telling the students that they will succeed with the case and announce how and when we are to celebrate the case milestones together.

Metacognition

The AIM work may entail students updating their learning concepts so that they do not unreflectively demand a pedagogy that enables more passive participation, also called downloading. Importantly, the students need to reflect on their own learning process. Some students are "cognitively passive" (e.g., when using phrases such as "I go to class" or "I read the texts that the teacher highlighted as most important" about their learning strategies), while others are "cognitively active" (cf. Stanger-Hall, 2012), using phrases like "We asked ourselves: Why do we approach the problem this way, how about applying XYZ to the data?" or "We listed our non-knowledge and realized that we needed to do some more desk research and conduct three more interviews". By identifying, reflecting on, and articulating their own competencies for themselves and others, they furthermore get to the level of metacognitive awareness (Bransford et al., 2000; Hatano and Inagaki, 1986; Zohar and David, 2009) because they are in the process, continuously invited (by themselves or other or by the tasks themselves) to be consciously thinking about their own thinking.

While growing into a community of practice, the classroom becomes a laboratory for metacognition. Not only is professionalism within reach for the students, but they also develop deep learning (as opposed to surface learning, cf. Weimer, 2012). The small community of practice created in class as well as presenting the methodology used to develop case solutions to the business partners serve this very important purpose.

- 76% of the students thought that the case format gave them a better understanding of their own competencies and value creation to business partners (the AIM survey). This is otherwise often difficult for students in the humanities to put into words.

In a couple of instances, the case was so big that three courses were involved. One year, a class in research methodology collected data, a class on creative communication solutions used the data to develop solutions to the

business partners, and a class on process facilitation organised and facilitated a big industry conference where findings and solutions were presented. Another year a class in international business communication collected data in a global cooperation, with the data including lots of interviews, focus groups, observations, photos, and video recordings of physical and ICT mediated meetings, while a class on conversation analysis used the video-recorded meeting data to do interaction analysis and identify trainables, and a class on process facilitation organised and facilitated an inhouse workshop for the corporation across two locations where findings and advice were presented. Variations of these two multi-course formats have been used in other years. These data have fed into research papers, some with students as (co-)authors, and five of the students later continued their work in industry-funded PhD scholarships.

Teamwork and student expectations

Because the task of working with an AIM challenge is so big, the students cannot do it alone and must work together in groups. And since working on a mega-case involves a lot of different tasks, the student groups are typically specialised, and each has a separate responsibility. Examples of responsibilities for different groups could be, depending on the case: stakeholder analysis, interview study, participant observation, communication strategy, participant communication, scenography, campaign strategy, design program, host of a participant event, development of workshop exercises, facilitation of participants, producing a website, etc. All tasks require a combination of data collection, analysis, development, and practicalities; and besides the more practical aspects, the tasks are course-related so that the groups can solve their specific task by using course material, and exercises in class are targeted specific case aspects.

It strengthens social cohesion in class that the students solve these tasks together, and while doing so they develop team competencies along the way. For many students, it is the first time they get the experience of productive teamwork. They manage to become performing teams, where they may have been stuck in the initial stages of group development earlier in their school life. Compare Tuckman's (1965) team development theory (forming-storming-norming-performing), which shows how groups must go through the initial phase, which can be both awkward or oppositely a kind of honeymoon; get well through a phase of expectations reconciliation, morality negotiation, and competence clarification; before they can reach working together closely and systematically to deliver satisfying results. They get to develop their own communities of practice (Wenger, 1998), one in their teams and one in class between all teams.

There may be divided opinions among the students. Everyone is usually excited at first, but some underestimate at first how much work they are going to put into the process, and when it dawns on them, it can create

tensions between the students who are willing to put in many hours of work in the process, and those who are not. They need to invest time and commit to the case so that their casework stands out in the competition with the rest of their daily lives.

Much frustration is however preempted by working with the students' sensemaking (Weick, 1995) and the structure of the semester. By clarifying for the students not only the "what", and the immensely important "why" of the casework but also inform them of the increasing work curve with the case, one can motivate them to be out early with their syllabus reading and preparation of theory papers. After the semester kickoff, it is advisable to insert a 14-day time slot, which the students can use for syllabus reading (for their own theoretical presentation) and their presentation preparation. The rest of the syllabus is then read in the following weeks. Students may also be encouraged to find a corner of their work on the course and develop it into a master thesis so that some of the time spent is reclaimed. Some end up doing that. In practice, students end up spending more time on AIM courses than on many other courses.

- 80% of the students thought that working on a case increased their own performance, and this happened because the case made academic work more interesting, due to the intensity of the process, or because they simply worked harder than they would otherwise have done (the AIM survey).
- Almost 90% of the students did not come from academic homes (the AIM survey).

AIM works well both at the bachelor's and master's levels. The students are typically academically stronger at the master's level as they should be. On the other hand, students more often have non-study-relevant work when they are at the bachelor's level, and they typically do not have as firmly established family habits and responsibilities in their own household regarding relationships and children as the master's students may have. It gives them more time and makes them hungrier to gain experience in putting their professionalism into a practical context, so the bachelor students often work harder than the master students. Therefore, a bachelor team can deliver as impressive results in an ambitious project as master's students can. They can also be easier to motivate because they are often very grateful to have the chance to do that type of work.

Project management versus supervision

Having a class working on an AIM involves a great deal of guiding and supervising along the way. At key times, one must be willing to function as a hotline on the phone, e-mail, and social media. Crisis management may be necessary. Especially a few weeks before project culmination day, there

is greater time used. Maybe you need to read and write over 120 e-mails during a single weekend, and maybe at a milestone there is intense traffic at the mailbox between Tuesday late afternoon and Wednesday morning. Boundaries between work and leisure can be difficult to maintain as a teacher when students work asynchronously at all hours of the day and have interdependent milestones and deadlines.

However, one solution is to make sure that one of the working groups to be staffed in class is a so-called "steering committee". The idea with the steering committee is that even though the teacher guides the class' work along the way, it must ultimately be their own result that they present to the business partner. The teachers will not have to be gatekeepers along the way, and it does not have to be their ideas that always win. The teacher's role is to provide the professional input, the ongoing professional quality assurance, and facilitation of the process itself. The steering committee is responsible for the internal coordination between the groups, the budget, and much more. In practice, this means that the steering committee is the one that students apply for money from, the organ that produces weekly newsletters to the class on case progress, makes sure that "the right hand knows what the left hand is doing", so that the student teams can talk together to avoid deviating from their respective paths or experiencing unnecessary overlap. It is also the steering committee that has the contact to the outside requester, so that everything does not have to go through the teacher, and so that there are also not 40 people e-mailing the same contact person. The latter will be highly praised by the business partner. This simple move will help reduce e-mail and phone time considerably, even if the teacher is always on standby on mail, phone, and in the class intranet or SoMe group. The students are also happy that they can negotiate with fellow students along the way about things they are reluctant to say to the teacher who will eventually be grading them. So, an "arm's-length principle" is advisable. Furthermore, the members of the steering committee develop leadership competencies.

Semester structure and the preparation process

Different semester and block structures are geared to AIM. Both short, intense courses and longer courses with more reading may apply to AIM. It will also be possible to divide larger case courses into reading modules, research and analysis modules, and solution development modules, respectively.

A large part of the educator's work is preparing the next semester's case while the current one is running. There is a lot of work in finding, securing, and organising a case. Also, the negotiations on the form and content of the case usually require the business partners to take their internal units and actors under oath. It helps the collaboration if the business partner is represented by a project manager. This person ideally has the

mandate, clout, and rhetorical ability to handle the many areas in which they need to be fully briefed, and who enjoys talking with teachers and students. It is also necessary to be able to synchronise with teachers' busy lives and to understand the students' working conditions. This can mean, for example, that questions are answered quickly. If seven students need to coordinate their work and feed into another team within two days, they cannot wait four days to get an answer.

The teaching preferably has a workshop format, and long teaching sessions (academically grounded theme days) may occur every week, especially in the beginning of the semester so that the curriculum may be integrated in the casework. If the students are to also present the theory in class to fellow students; ideally, all case groups have given their presentations before the autumn or Easter holidays, and then it is fitting that a new break of two weeks can be used to get a good start with the work in the case groups. In order to optimise the work in the groups outside the school grounds, it is important that each theme day ends with clear expectations of what the groups will do next and how it will be reported in class next week. When the solution process is midway, the work in the working groups is typically so time-consuming that two weeks are needed between each teaching session (which in this phase are professional workshop days).

End product and business partner reviews

The students working with AIM are not just made sense to; their situated learning and problem solving empowers them. Basically, they are introduced to a dynamic context notion that is based on the micro-sociological notion of social action, which emphasises both the context shaping as well as the context renewing (Goodwin and Heritage, 1990) within the concrete action. By not seeing the subject as determined by its context, but as actively and dynamically negotiated material that can help shape its surroundings, the students' competence to act is strengthened so that they can create value in professional practice.

At the final stages of the process of working on the AIM, the students make visible their competencies through their presentation of results to the collaborating business partners. This aspect of the collaboration with business partners is very important because the students grow as humans and professionals as they see their reflection in the respectful gaze and recognition from those around them (cf. Lacan 1949/2006). It means a lot more to them that a business leader finds them competent than that a teacher does, so they put in more effort than they otherwise would have done to get the recognition from those outside of academia.

The end products have been as diverse as a professionally looking A3 report delivered to a government minister, a presentation at a meeting or a mini-conference, or a presentation show with subsequent mini-convention at the requesting party's premises. It is often also a new experience for many

students to create texts to be read by someone who could choose not to, instead of just writing for their own family or for teachers who are paid to read it. That fact forces some to put forth more of an effort in developing the interplay between content, purpose, and form.

When the final delivery is met with satisfaction from the business partners, it also means that they in turn recommend this type of collaboration in their network, so that it is easier to land a case next time, and they often subsequently hire students and graduates so that their entrance into future working life is facilitated. One company even financed two PhDs. They "want more where that came from".

Here are a few statements from business partners:

> "That's great! I just can't stop smiling."
>
> "I can't get my arms down. It's so elaborate and professional; you do not just have one piece of good advice; you deliver the whole palette." (Managers and employees at an international company).
>
> "This is solid work!"
>
> "We might as well have chosen to give this challenge to Boston Consulting Group or McKenzie, but we chose to give it to you because we expected more from you. And you delivered." (Leaders in another large corporation)
>
> "I can SEE what you can achieve! I can SEE what you can achieve!"
>
> "What the students delivered here today is FULLY on par with what we get professional agencies to do, and we pay a FORTUNE for that!"
>
> "Why have we not brought in such trainees and students? Why have we not been contacted in our company by the university? That's the kind of employees we need!" (Several business leaders from different companies)

Needless to say, such remarks from CEOs and impressive professionals make the students exuberant.

The teaching process thus becomes an example for both the students themselves and for external observers of what they can do in the business arena, a show-don't-tell exercise. AIM gives the students a big task that they can proudly talk about having solved afterwards in their social networks, including on LinkedIn. The result is, all in all, that increased learning, strengthened employability, and positive branding are achieved in one fell swoop.

Exams

AIM will not fit all types of courses, and it is of course not suitable for all types of subjects. A teacher always needs to work with the format. However, more teachers can use the method to inspire their own reflections of how the

students' performance is measured and graded, so that there is a better connection between goals and means (cf. Krause-Jensen 2009).

With AIM, the final exam can be shaped in many ways. Ideally, it is integrated with the case process, so that a special project culmination event also serves as the actual exam. An example of that is when either the external examiner participates in a workshop that the students arrange and facilitate. That could require an oral group exam. Or the external examiner assesses several products from the process, which are gathered by the student(s) in a portfolio. Alternatively, there is a regular oral or written examination, or a combination of all the above. I have tried them all.

- 62% of the students thought that it was easier for them to pass the exam on time (the AIM survey).

Such flexibility is necessary to fit the institutional formats and requirements. It is, however, important that the inner logic of a subject and its pedagogy is respected when working with learning environments (cf. Entwistle, 2009).

Funding

It is often possible to get financial support for the development and operation of such courses. A lot of sponsors, donors, and foundations have grants, pools, and funds fit projects like AIM. Personally, I have received development funds from entrepreneurship and innovation labs (devoted to support students and educators), from unions (that want to be visible to the students), from industry NGOs and think tanks (that want to be visible to politicians and policy makers for being visible to the students in promoting innovation and entrepreneurship), and from my own department or faculty. All amounts are small (typically 1,500–10,000 euros). However, these amounts go a long way, as no one must be paid a salary. But in one case a class had to fly from Denmark to India, stay in a comfortable business hotel (so that they could focus on their data collection and have stable Wi-Fi), and later in the same class four more students (two overlapping the first stay) went back to India for four days in order to facilitate a physical workshop on the local premises, parallel to the one in Denmark, so that only presentations of the findings were video-mediated from Denmark to India. That class was founded through a patchwork of financial resources.

The stronger track record one gains vis-à-vis business partners in terms of showing results doing AIM, the easier it is to get them to allocate money to the project. The business partner may cover direct costs associated with the project (bus transport, lunch on arrival, catering for workshop participants, travel expenses for research and fieldwork, material expenses, etc.). The budget is negotiated at the same time as the wording of the case. For the requester, it is always a matter of them getting far more for their money than they spend.

The societal contribution from humanities

All courses hitherto using AIM have been communication analytic or communication strategic in some way, ranging from interaction analysis over process facilitation to strategic branding. It is essential to the field of strategic communication that it is not an add-on. For communication to be effective, it needs to be integrated in strategic decision making. This aspect also explains why the students are so successful in offering business partners advice. They use their humanistic competencies with respect to data collection and data analysis to not only identify the strategic challenges for the company but also develop scenarios for possible solutions to these challenges. The class from 2006 was met with the challenge of creating their own StartUp in less than 11 weeks is an example of that. After the first shock had evaded, they immediately developed ideas for potential businesses, and during the semester they developed brand platform and communication strategy for their businesses, besides taking care of content production, editing, proofing, and project management. They developed and started running a business, without having ever taken a class on entrepreneurship.

An interesting point was that for their business venture to be affordable, a lot of the students discussed which competencies they already had that they could sell. Instead of buying and selling physical objects and having to consider storage and transport, they spent their time reflecting on their competences from the humanities. This awareness alone was worth the while because they later used it to pitch themselves in job interviews. The students from other classes had similar experiences. They found out that when working on case challenges, they had to use everything they learned in other courses too, and in life. They had to connect the dots and not treat the curriculum as primarily exam relevant.

Moreover, the students learned that if they ask the right questions, and take the time to strengthen their metacognitive skills by questioning their procedures of questioning, they could as a result use the curriculum to develop professionally strong solutions for customers, business partners, etc. They were creating value for business partners precisely because they took the time to do proper analyses and not just jump to the easy conclusions. Last, but not least, they learned that the social construction of reality is not just something to read about in a course-related book (e.g., Berger and Luckmann, 1966), but is actually translatable to a tool for reflexive practice: By questioning the given, included the case formulation itself, and their own processes of collecting and analysing data, they realised that what they had to offer to the world as humanistic candidates were the ability to explore complex challenges, question their own path of exploration, and change the reality they were presented with by changing the analysis of the situation. Meaning embedded in the original analysis of the challenge was questioned, and that very process of questioning the given made a difference for the solutions to develop.

In connection to Horizon2020, Sean McCarthy (McCarthy, n.d.) has developed a model of research impact, which he has disseminated in courses and seminars. According to that five kinds of impact are to be considered: (a) basic research (new knowledge of interest to peers from same or other research fields); (b) applied research (new knowledge of interest to applied research, new advice to participating industry and public service partners such as improved professional practices, industry or technical standards, or at public policy level); (c) patents (models and methods, improved product/service); (d) product/service (version 2.0 of products/services/formats; or business models for spinoffs), and last but not least, (e) broader impact for society (via dissemination, campaigns, national conferences, courses, talks, or media interviews).

In the AIM classes, these kinds of impacts were created in different ways. In cases where the class collected data, these were used by the teacher in the role of scholar, and sometimes also by some of the students in order to do basic research in the master theses and, later, published journal papers or book chapters. However, in most cases the data were used to do applied research, and the results were published in journal papers or book chapters by the teacher or some students or in collaboration. No patent applications were made but numerous models and methods were developed for improved practices and services, and on occasion concepts, products, and services were created from scratch and commercialised. Finally, almost all AIM classes disseminated their work to different publics, be that segmented industry publics or university media, or to a wider public via news releases, SoMe announcements, websites, news interviews, TV coverage, or via an entire media campaign. Teaching the students to always think in terms of how their work may benefit a wider audience is crucial to the method.

- 50% of the students felt that the course made them more entrepreneurial (the AIM survey).

The different kinds of impact probably apply to all faculties but besides these there also is a special humanistic contribution on three different levels that the AIM concept is in dialogue with. First, some of the results from the AIM classes were, as mentioned previously, communicated directly to the relevant audiences, and resulted in immediate improvement of services and professional practices. This contribution resembles Sean McCarthy's last three kinds of impact. Some of the contribution on this level would be applicable to other faculties as well but being equipped professionally to develop solutions that fit diverse human practices and to communicate their work and results to different audiences is directly a part of the humanistic curriculum. Second, the students were encouraged to explore their deeper learning and question the taken-for-granted assumptions (cf. Garfinkel, 1964) shared by themselves or the external business partners. This second order or double-loop thinking (cf. Argyris and Schön, 1978) is also a part of

the humanistic DNA. And third, since the AIM classes foster a productive dialogue between research and practice, also beyond the individual class and its exam period, new knowledge is created due to the Hegelian dialectic. This knowledge not only feeds into future curriculum at the faculty of humanities but also becomes a part of the curriculum at other educational institutions and in consultancy practices. The degradation time of uranium is billions of years, and some say – tongue in cheek – that the degradation time of humanistic knowledge is 50 years or more. An example of that is how rhetoric, semiotics, and identity studies have gradually been translated to feed into courses in branding and presentation skills at business schools (and now also communication studies at the faculty of humanities). Because the dialogue with practice and business partners is so intense, and the students so creative, in the AIM classes the degradation time of developed knowledge is cut shorter.

Conclusion: Pros and cons

Using AIM as a teaching method stands firmly on research in group dynamics, organisation, and learning. The extra work from all stakeholders involved results in teaching days that are exciting for both students and teachers. The students remember the class and the case many years after.

As evidenced by Table 10.1, it was not possible to find any disadvantages for society in general with this form of teaching.

Drawing up the pros and cons for the parties involved:

Table 10.1 Overview of advantages and disadvantages of AIM for key stakeholders

+/– for AIM	*Benefits, helpers, gains, and dividends*	*Disadvantages, barriers, and the price-you-have-to-pay*
Students	• Increased learning • Integration of theory and practice • Team skills • Empowerment • Sees own competences in play • Feels at home, also pattern breakers	• The weakest students experience extra work • The strongest students, used to high grades and focus on theory, may be unsure whether it is really "the wise choice" • Students need to collaborate with fellow students, and they may have had bad experiences with that • Frustrations when the case-work is intense, and everyone is busy
Teachers	• Dynamic teaching situation with committed students • Exciting class discussions	• More time spent on project management, supervision, guidance, and feedback

(*Continued*)

Table 10.1 (Continued)

+/– for AIM	*Benefits, helpers, gains, and dividends*	*Disadvantages, barriers, and the price-you-have-to-pay*
	• Easy to find relevant examples and exercises • Seeing people enjoying both professional and personal growth • External partners provide support • Opportunity to integrate with research • Meets political requirements for dissemination and external cooperation	• Negotiating with companies requires many meetings, e-mails, and phone calls • One does not get to nurture an ego as a high-brow theorist • Many teachers have too little preparation time provided for teaching
Institution	• Enthusiastic students • A higher percentage than average pass the exam • Dynamic atmosphere	• Extra student questions regarding the examination form • Possible curriculum changes needed • Possible increased administrative work with accounting (e.g., by external sponsors on workshop and travel expenses)
Business partners/ external project owners	• Good and well-worked solutions • Enthusiastic and grateful students who experience getting a chance • Fresh air from the outside, youthful take on the matter • Opportunity to link to state-of-the-art • Opportunity to let the collaboration grow into research and development projects • Employer branding • Recruitment of new talent	• Time spent at case kick-off and on project culmination day for key employees and managers • Time spent assisting with relevant information and contacts to resource persons • Expenses for transport, catering, workshop materials, printing, etc.
Society in general	• Intrapreneurial and reflexive candidates who create value in private companies, public institutions, and NGOs • Candidates get jobs faster • Appeals to students from non-academic families (pattern breakers) and helps reduce social inequality	(No disadvantages identified)

Hopefully, this chapter has shed some light on how teachers can collaborate with business partners on student projects in education. It is academically interesting to do so, and it is important for society and for the students themselves.

Note

1 Parts of this article are an edited version of a Danish publication from 2015 (the chapter "Samarbejde med eksterne partnere om studenterprojekter" [Collaboration with external partners on student projects]) in the anthology "Lærebog i universitetspædagogik for erfarne undervisere" [Textbook in university pedagogy for experienced educators], edited by Lotte Rienecker and Peter Stray Jørgensen, and published by Samfundslitteratur, Copenhagen, Denmark.

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11 Differing expectations in student–industry collaborations: Towards a value-based framework fostering dialogic ground

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Introduction

Student–industry collaborations have become an integral part of university education and they need to satisfy differing expectations from academia and industry. To balance, negotiate, and bridge differing expectations lies at the core of student–industry collaborations and poses one of the most significant challenges in such collaborations. While a common piece of advice is to outline differing expectations at the beginning of the project, and further, to set clear goals for the project output, practice shows differing expectations are more complex in nature. They tend to surface at different, unexpected points in time, often posing frustration and conflict in unexpected ways. To successfully guide student–industry collaborations, educators need to carefully engage in differing expectations and identify shared values, not only at the start of the project but during the entire process. In the following chapter, we propose a value-based framework that helps foster dialogic ground in student–industry collaborations.

Many universities have embraced project learning. At Roskilde University, located in Denmark, student–industry collaborations are even a *sine qua non*. More than half of students' time is dedicated to problem-oriented problem learning (Heilesen and Andersen, 2015, pp. ix–xviii). This means a variety of students' academic tasks are linked to external partners, providing problem descriptions and/or real-world cases. Students' strong effort on engaging with industry contacts stems from the university's strategic focus on student–industry collaborations and the belief "that the most relevant results are obtained by solving real problems in collaboration" (Roskilde University, 2021). Students and industry partners do not only collaborate to solve the problem at hand but also because they share a wish to create something meaningful, something that is not only a theoretical problem but makes a difference in everyday life. However, this common wish often tends to move to the background, because students quite

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naturally tend to focus on the academic project at hand and the industry partner often puts strong emphasis on the value students may add to the specific organisational challenge and/or task. While in the instigation phase of student–industry collaborations, differing expectations typically serve as a motivational driver; during the project phase, they tend to turn into obstacles (Barbolla and Corredera, 2009). What seemed to drive the project forward now creates stumbling blocks threatening the success of the project. As both worlds expect something different, satisfying both seems to become an unmanageable task (Awasthy et al., 2020). How, then, is it possible to successfully guide and facilitate student–industry collaborations that fulfil academic standards and satisfy industry needs? How can students be supported to successfully finish their academic projects while also creating something of value to the industry partner?

To address this issue, we suggest a value-based framework that supports attention shifting from the project output towards shared values. The presented framework suggests a series of starting points for communicatively reframing differing expectations. The proposed framework helps further by preventing misunderstandings and frustrations on both sides and contributes towards improving the planning process so that these challenges can be foreseen more easily. Educators and academics in the humanities and social sciences may use the framework as an outline for dialogue and as a tool for reflection when tackling the complex task of establishing student–industry collaborations.

This chapter starts with two case descriptions. The cases were chosen as examples based on our own experience of working with student–industry collaborations. The case descriptions help point towards some of the crucial issues regarding differing expectations in student–industry collaborations. The case descriptions are followed by a critical discussion of the interests at stake and a theoretical section that addresses student–industry collaborations through the conceptual lens of the other and otherness. We then use this conceptual lens to discuss the cases from a communication perspective, which serves as the basis for the presented framework.

Two case descriptions from our teaching practice

As described earlier, differing expectations are not static but fluid, complex, and ambiguous in nature. In the following text, we present two cases of student–industry collaborations, where differing expectations become a crucial factor leading to frustration and conflict in the respective student–industry collaboration, eventually threatening the success of the project. The case descriptions serve as the basis for the following discussion of the different interests at stake. In the first case, the students make an unwitting, yet crucial, distinction between the academic report for the university and a shorter report for the organisation. They decided to not make the academic report accessible for the organisation, which created

suspicion. The second case deals also with the project outcome, yet from a feasibility perspective. Here, differing expectations rise to the foreground in the light of what both parties see as feasible in the allocated time of the project.

Case 1: The diocese debacle

A small project group consisting of two students were very content when they were able to work on a project that aimed at mapping out communication problems in a diocese. The small organisation had advertised the project at the university's website and two students, who shared an interest in organisational communication, teamed up for the project. Their hope was to contribute towards finding a possible solution to what seemed to be a conflict between factions of the congregation in the diocese.

As a result of the analysis, the students were able to pinpoint some interesting conflicts of interest as well as some overall communication problems. At the end of the project, the students decided to write two reports. One was written in the form of an academic report describing the informants and their background in detail. They did so to meet the academic requirements. The other was a shorter report tailored at the diocese's needs suggesting possible solutions. In the report sent to the diocese, the two students were open about the fact that they wrote two reports and that they were tailored towards the respective readership. While the short report was generally well received by the diocese, one member of the diocese became very interested in the academic report. He asked the students, if it was possible, to have it for perusing. The students, fearing the anonymity of their informants, declined the request. In their understanding, the academic report contained no further information pertaining to the diocese. The person, however, was very insistent and decided to call the head of communication studies at the university, asking if it was possible to sit in at the oral exam, where the students were going to defend the academic version of the report.

In Denmark, exams are open to the public, and hence attending an exam is always a possibility. In practice, however, little use is made of this right and when exams are attended by external visitors everybody involved typically knows this beforehand. The head of studies told the man about the rules, adding that he would like to inform the students about the person's attendance. The person then told the head of studies that the reason for sitting in the exam was that the students refused to share the academic report. Upon learning that the member of the diocese wanted to attend the exam, the students started to feel very uneasy about their exam. It was rather unclear why it was so important for the members of the diocese to attend the exam and it was speculated that the person wanted to find out information about the informants. After weighing the different interests, the

head of studies closed the exam for external visitors on the grounds of prioritising a safe exam environment for the students.

Case 2: The demanding NGO

An NGO representative contacted a staff member at the communication studies department at RUC with the proposal of a possible project case. The case was the NGO's wish to attract more young members, hoping to stop the NGO's dwindling members count. Another group consisting of two students found the project interesting and began collaborating with the NGO. Prior to the start of the project, the president of the NGO sent a contract for the students to sign. The students returned a signed and edited version of the contract, telling the NGO that the edited contract entailed what they thought was feasible in the four months allocated to the project. The NGO then also returned a signed contract. When the students were ready to hand in the project, they received an e-mail from the NGO. The e-mail conveyed a feeling of discontent, stating that the board of the NGO was not satisfied with the students' performance. The e-mail requested that the students immediately honour the contract and provide the NGO with a specific suggestion for a communication campaign.

In the students' understanding, they never had agreed to such an obligation; however, by taking a second look at the signed contract, they found out that it had been changed after they had signed it. In their perspective, the changes being made were so radical that they did not feel comfortable continuing the collaboration. They declared the contract as invalid and terminated the relationship. The NGO, in turn, contacted university staff, urging that the contract be kept. After discussing the issue at the university, it was found that the students were not legally obliged to honour a contract that was changed after it had been signed. It was further stated that the students in general are not legally bound to service external partners because their primary obligations lie within their academic studies and not with fulfilling external partners' wishes.

Differing expectations – Or what is the problem?

At first glance, the two aforementioned cases suggest some obvious readings. In the first case, it seems like a nosy person from the diocese is the problem. It appears the person wishes to receive specific information and may be (mis-)using the students for this. The students, understanding they are dutiful academics, however, see it as their task to protect their informants and refuse sharing the academic report. In their understanding, the academic report did not contain any additional information relevant to the diocese. The person from the diocese, however, found the students' position problematic and secretive. While we only can speculate about the real reasons behind the strong desire to get insight into the academic report, it

shows framing academic and industry expectations as dialectic or even exclusive causes conflict. Why was it not possible to keep informants anonymous in an academic report? Who is to decide which information is relevant to the diocese and which not? Even though the students tried to act in the best interest of both worlds, it caused conflict. Especially one member of the diocese was left with the feeling that important information was kept secret.

The second example raises questions with regards to responsibility. Was it the students' responsibility to double check the contract after receiving it? Or, was it doubtful practice that the NGO did not inform the students about the changes being made? Regardless of the division of responsibility, also the second case clearly shows how expectations in academia and industry differ. According to Roskilde Universities' PPL model, students are obliged to (a) do a systematic literature review, (b) select meaningful theory as the basis of their project, (c) produce and analyse empirical data, and (d) critically reflect on their work (Andersen and Dupont, 2015). Even though the theoretical and analytical work depends on the specific academic tradition and culture students' work in, on a general level all projects need to satisfy these academic requirements. The expectation of the industry partner differs from this in the sense that it should be applicable or, in other words, add value to the organisation. If this includes a campaign, recommendations or other material are up to the collaborating partners to decide. While some industry partners hope for, and are satisfied with, the inspiration they get through the students' work, others wish for more hands-on ready-to-use results, as outlined in the second case.

While one possible solution towards differing expectations is to rethink the academic report, for example, in the form of adding criteria such as "applicability" or "practical outcome", we propose a different route as we fear that demands of practical applicability may create confusion and underestimate the academic report as such. It may also put students in the situation to make knowledge applicable in an organisational context, in which they have little or no experience. While some students may appreciate this, we suggest a shift of focus from the output of the project towards the constituting processes.

Differing expectations in academia and industry as forms of otherness

Before we go into further detail into the constituting processes, we first conceptualise differing expectations in academia and industry, drawing on theoretical considerations of the concept of other and otherness. The conceptualisation draws on several philosophical and theoretical traditions and is, as Beville (2010) writes, a "slippery and difficult term" (para. 2). Despite its definitional ambiguities, the concept is often used to explain identity formation on an individual level and the construction of social

identity on a systemic level. In the scope of this work, it shall help demarcate the differences that lie in academic and industry expectations, as well as show their inevitable relatedness.

Tracing the historical roots of the concept shows that it is grounded in several academic disciplines. In philosophy, for example, it is related to Hegel's theory of self and other "in which the juxtaposition towards the other constitutes the self" (Jensen, 2011, p. 64). In psychology, otherness is often traced back to the concept of the looking-glass self (Cooley, 1922). Established in childhood development studies, the looking-glass self suggests that one's self-understanding is related, if not dependent, on others' perceptions. In sociology, Mead (1934) argued famously that social identities are constructed through ongoing social interactions with the other. He states that it is not possible to develop a sense of self in absence of the other; on the contrary, the other becomes an inevitable part of understanding the self. He argues further that the other is produced and co-produced through communicative exchange, through agreement and disagreement, and that the image of self is based on such interactions and communicative processes. Foucault takes these ideas further, connecting the process of othering with the concepts of power and knowledge (Connolly, 1985). He argues that we produce imaginary knowledge about the other and therewith assign status and power. However, the other is not only a concept that has occupied philosophers, psychologists, and sociologists. Another famous example of the application of the other is Simone de Beauvoir's feministic work "The second sex" (Beauvoir, 2007, 2011), which claims a woman is "the Other" in relation to a man, who is "the Subject" and "the Absolute". She uses the concept of the other to explain dominance and inequality in gender relations. The concept is further developed and applied in Said's (1979) well-known postcolonial writings on imagined geography, where he examines the Western view of the east through the lens of the other.

The short outline of the different groundings and ways of using the concept aims to capture the following three main points: (1) the other is all what the self not is, (2) the other is inherently bound to the self, and (3) the other and otherness is constituted through communicative processes. In the scope of this work, this means that differing expectations in academia and industry are threefold: (1) they are inherently different, (2) they are inevitably linked, and (3) they are constituted through communication. Differing expectations in academia and industry hence constitute each other, this means in theoretical terms that differing expectations arise through the otherness of the other. It is important for us to note that this constitutive process takes place at two levels: the individual as well as the systemic. As pointed out earlier, such processes eventually create power hierarchies, which we do not deny. However, in our work, we focus on the understanding and constituting processes of the other and will, therefore, not further elaborate on such power hierarchies. Instead, we focus on the constitutive processes through the lens of dialogic communication.

Dialogue and communication

Earlier we have established the theoretical understanding of differing expectations in academia and industry constituting one another through communication. Communicative processes in the forms of agreement and disagreement have been described in the field of dialogic communication. Dialogic communication is communication theorised as dialogue or the experience of otherness (Craig, 1999). Sennett (2012), examining cooperativeness in modern society, distinguishes further between the concepts of dialogic and dialectic conversations. In dialectic conversations, he writes, "the verbal play of opposites should gradually build up to a synthesis" (p. 18). The aim is finding common ground and a common understanding. Dialogue, according to him, aims not necessarily at establishing common ground but at expanding knowledge about the self and the other. He writes: "(…) through the process of exchange people may become more aware of their own views and expand their understanding of one another" (p. 19). Communication and communication processes, dialectic as well as dialogic, can hence be understood as possible mutual learning processes, where we learn about one another and where we learn about ourselves.

To understand the constitutive process as an inherently communicative process, we need to understand that the constituting processes are examples of meetings between the other(s). Dialogue is called for to balance, negotiate, and bridge between the different logics inherent in differing expectations. To explore some of the issues outlined in the two cases in the beginning of this chapter, we suggest taking another look at them through a communicative lens. The communicative lens builds on sense-making theory as introduced by Dervin (1998) and Dervin and Naumer (2009). According to this view, the world is primarily understood based on the mental and the experience-based context we carry in us. In the described cases, the professional identities and contexts differ quite significantly, resulting in gaps that need to be bridged. Buber (2018) introduces in this relation the idea that communication processes can be distinguished between (a) communication that seeks to enlighten and develop the other and (b) communication that seeks to use the other for personal gain. Respectively, Buber terms this difference "I—thou" and "I—it" (Buber, 2018, p. 4). Based on these basic reflections on the nature of communication, we will cast light on the constituting processes from a communications perspective and how these communicative processes may turn out as problematic.

Looking at the cases through a communicative lens

The first case took place in a diocese where the students were asked to map out some possible areas of conflict within a small organisation. To the students, the task is a way to further their own interests, because it will merit them the semester's project work credits, and they also found it

interesting to help a small NGO optimising parts of their organisation. The diocese, likewise, had (at least) dual interests. They wanted to have the organisation scrutinised and may not have had the finances to hire someone to do it. They further wanted to help students, who might benefit from doing this kind of work. To a certain extent, there is a pool of common interests to work with, but there are also possible pitfalls because of differing interests. To be better aware of the interests at stake, Rousseau (2004) suggests creating a, what she calls, meta-contract. In her work on informal psychological contracts in workplaces, she writes:

> On the front end, this meta-contract requires an open exchange of information between parties to learn about each other's interests, goals, and constraints. It means acknowledging where different psychological contracts exist across hierarchical levels, positions, or functional areas, and the basis for these differences.
>
> (Rousseau, 2004, p. 125)

In the case of the diocese, the students and the organisational members were able to find common ground to begin with. They had a project both parties were excited about, and they found themselves in what Buber calls an "I-thou-situation" that made it possible for them to grow and learn from each other. However, the case also shows that especially one person's sense-making started to differ from that of the students in the final phase of the project. It differed not only from the students but also from the other members of the diocese. To this person, the students had an "I-it" view of communication and likewise it would seem that this person, himself, had an "I-it" view of what the student project should do. In this view, the student project should give him or her the information that he or she needed. Since the report that the students sent to the diocese did not fulfil that wish, he or she wanted to get the information through attending the students' exam. This created conflict as it looked like he or she was setting his own interests over the interests of the students and the project in general.

It is important to note that the diocese member's interest to know what is in the academic report is legitimate. The diocese suggested the project and has hence a valid interest in the analysis and discussion related to the project. When the diocese member, however, failed to accept the relation between the report sent to the diocese and the academic report, he or she felt that the students have used him or her and the diocese to further their own interests. The students, on the other hand, find that the member of the diocese is trying to further his own interests at their expense. This is a case where there is neither an open exchange of information as suggested by Rousseau, nor a mutual learning process as suggested by dialogue theory.

In the second case, the NGO expressed an interest in students helping them address serious recruitment issues. The NGO is eager to have the students work for them, hoping they will come with insights that they

themselves do not have. To align expectations and to further formalise the student–industry collaboration, the academic supervisor assists the students in formulating a contract that shall help the students to frame the collaboration, the workload, and its outcome. The contract had been changed by the president of the NGO after the students had signed what they thought was the final version. In this case, it is quite clear that the NGO sees the collaboration with the students as a way to achieve something specific. In this view, the students are a tool for the NGO to achieve a specific goal, which does not leave room for mutual learning processes. This shows that the NGO underestimates, if not neglect, the students' needs, but also that they seem to overestimate the power of communication in the sense that they seem convinced that the dwindling number of members is due to a lack of communication rather than, for example, lack of relevant and interesting activities. In this case, the NGO thinks they already have the right solution, a communications campaign, and this is the task they want to have executed. The NGO's desperation to gain new members seems to have overshadowed their ability to understand the student perspective and to be open to learn something about themselves. Likewise, the eagerness of the NGO seems to have encouraged the students as well as their academic supervisor to take (what proved to be) necessary precautions to protect the students. Both might have been instrumental in the process leading to the students discontinuing the collaboration, and both may have led to both partners seeing themselves as victims of the "I-it" communication. Also, the NGO's eagerness to gain new members seems to have overshadowed a feeling of obligation to honour a written contract already signed by one of the parties. By amending an already signed contract, the NGO did not only make a formal and ethical faux pas, but, more importantly, failed to honour the psychological contract between themselves and the students.

Both cases show that communication processes in student–industry collaborations are complex and fragile in nature. While all partners involved started to be highly motivated, misunderstandings arose, and communication ended. Especially in the final phase, differing expectations became an insurmountable obstacle leading towards locked positions and emerging gaps seem to become unbridgeable threatening the success of the collaboration. To prevent such entrenched situations, we suggest a value-based framework fostering dialogic ground, which we will present in the next section. The framework is a meta-framework that may be used by educators and facilitators of student–industry collaborations to address some of underlying issues at stake and therewith create room for a mutual learning experience.

Towards a value-based framework fostering dialogic ground

Taking a starting point in dialogic communication processes embraces the notion that there are multiple ways of seeing the final project, some more

rooted in academia, and others more rooted in industry. The project is hence understood as a learning opportunity not only for the students but for all partners involved. Mutual learning spaces are established by exploring common values, which forms a proposition that addresses the various interests and perspectives. Although the dialogic approach is likely to result in a more complex setting that requires the negotiation of a more ambiguous project, having full support of both industry and academia through shared interests may make this process more rewarding.

The idea of the value-based framework is not for one partner to change their overall objective but to find common values in the project. For example, when it comes to finding novel solutions to societal challenges, researchers (academics and students) and practitioners (public, private, or industry) share an interest in operationalising solutions towards the better. As the different actors bring different expertise and insights to the table (e.g., practitioners have the insights of the complexity of the problem and students, i.e., have the newest training in certain theories), the experience of the outcome is larger than the sum of its parts, yet the value of the experience might be different for different project participants and stakeholders.

Often these collaborations are looked at as negotiations; however, participation with shared meaning may be more successful when it comes to student–industry collaborations. We hence propose the following framework, where we have identified some of the major topics that typically failed to be addressed. This framework is meant as a series of starting points for discussions about the different dimensions inherent to student–industry collaborations. It is important to mention that the responsibility for facilitating dialogue lies on the educator and/or facilitator. This does not mean that the educator necessarily needs to take part in the dialogue(s) but that it is the educator's responsibility to brief and guide the students when addressing the identified issues. The following framework is meant as an inspiration to develop a method sheet and/or specific guidelines that can be addressed during dialogue sessions. It presents issues on a meta-level and should not be understood as an applicable method. Figure 11.1 illustrates the framework, followed by some more detailed explanations.

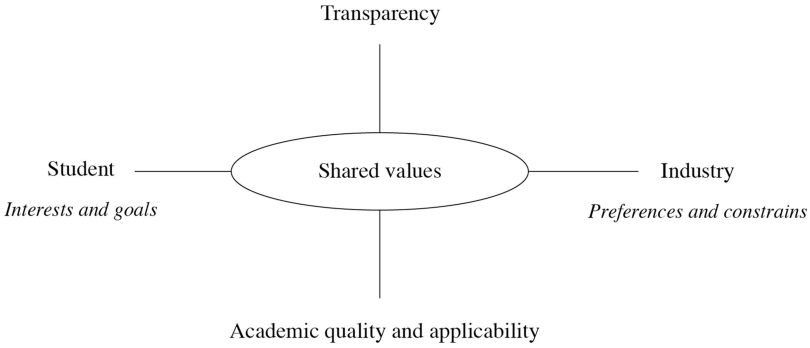

Figure 11.1 Illustration of the suggested framework.

1. *Students: Interests and goals*
   Typically, students have (at least) two interests and goals. First, they have the basic interest in passing a course or a semester to which end the industry collaboration can be used. Second, according to our experience, the students have an interest in the collaboration because it helps them to get insight into certain industries and their challenges and they can try out different areas they would like to work in. There are further interests at stake, especially on a personal level, which we can only speculate about, especially in relation to if they match or may not match industry expectations. Addressing these dual interests and (if applicable) personal goals is hence one central tenet in the approach of involving students in industry projects, yet this focus often becomes lost in the process. Once the collaboration is established, both partners tend to start focussing on their specific outcomes and wishes and typically tend to forget that the other partner might have different interests. Defining the outcomes through the value derived by the students prevents industry from treating the experience as transactional, that is, a cheap consulting service, and academics from forgetting that the industry connection is of significant value for students.
2. *Industry-partner: Preferences and constraints*
   Despite our point on the necessity of focussing on student preferences, industry is unlikely to continue to participate in student projects if they are not achieving their desired outcomes and some form of organisational value. This is a constraint that needs to be addressed. Every hour that is used in such projects needs to be accounted for in a business environment and hence it is important to be aware of the fact that projects should create some kind of value. This consideration encourages a realistic discussion about what industry would consider success and can allow the setting of stretch-goals as well as minimum satisfactory expectations. However, preferences of industry-partners can be difficult to elicit in these settings because the projects are being hosted within academic institutions. A heavy pedagogical focus in planning stages can make it difficult for industry to feel entitled to shape projects and result in frustration that the process undertaken in the project does not align with their initial expectation and preferences. These preferences form an important part of the dialogic negotiation and emphasises the importance of dialogue between university, students, and industry. It is very much an university obligation to ensure that industry preferences are addressed and met in the project description and the collaboration process. The point here is that if the university and the students do not see, understand, and address the needs of prospective industry partners, chances are

that industry partners do not see the collaboration as relevant and therefore might not want to invest in a partnership.

3. *Academic quality and applicability*
   Academic quality is an important issue from the students' perspective, understanding that during the project planning process is critical, but can become lost, as seen in the cases presented. While it is difficult to involve students in the planning process, a regular check in from a student perspective is critical to ensure the projects are focusing on the student's development and needs above those of either academics or industry partners. To make sure that students as well as industry and university representatives have the students' best interests in mind, university–industry collaborations must focus on academic learning outcomes as well as professional and personal development for the students. This means that already in the description of the collaboration project in question, there must be preference for the students and for the students' interests to ensure a project design that can accommodate students' preferences and outcomes.

   In extension to this, as we have argued before, it is important to keep the organisational value in mind. While students' development should be in the foreground, it is important to address the fact that how the developed knowledge can be applied or be made applicable, so it is useful for the organisation. In the two cases described earlier, the students have formulated the projects in a way that can accommodate the university demands for a student project report. However, that also meant that they have taken the projects as defined by the industry partners and reformulated them so that they made sense from the student perspective. In practice, this means that the students have translated the problem definitions of the industry into workable academic problem definitions that can be sensibly used in a university semester assignment; however, here they have thereby failed to keep industry interests in mind.

4. *Transparency*
   Transparency in many ways is implicit to dialogic communication processes but encouraging parties to be clear and transparent can help uncover any agendas that need to be disclosed and help to negotiate a clearer way forward. This can help to remove unintended disruptions during the students' working process and ensure the project is well understood by all parties involved prior to its formal commencement. Therefore, we need to define transparency in these processes to address explicitly the various needs and preferences that the involved parties have. It must be the university's obligation to ensure that transparency is not only part of the contracts between students and industry, but also that transparency is explicitly expressed and addressed as a part of the cooperation process, tasking students and industry representatives with an obligation to vocalise their expectations and needs in the cooperation processes.

Conclusion

Student–industry collaborations are recognised by both academia and industry as being of significant value in contemporary academic education. However, as both have diverging interests in such collaborations, educators as the facilitators of such projects need to carefully balance, negotiate, and bridge differing expectations. In this chapter, we have presented a value-based framework that proposes a series of starting points for facilitating dialogic discussions about the shared value that should be targeted in student–industry collaborations. This shall help improve the facilitation process and address challenges in an early stage. It further provides an opportunity to build a broader discourse around how educators and academics can tackle the complex task of initiating and leading student–industry collaborations. Drawing on two case descriptions, we have outlined and theorised differing expectations in academia and industry as others mutually constituting one another through processes of communication. Addressing student–industry collaboration through a communication perspective showed that when open discussions fail to be established, chances are that collaborating partners will not share a common understanding, which eventually may lead to different and even conflicting views. Establishing a view on a common value can help the different parties bridge gaps in similar ways and thereby help ensure that they have a common understanding of each other's needs and preferences. Ideally, this leads to open, exploratory, and symmetrical "I-thou" conversations from which both sides can benefit. In conclusion, we argue that for student–industry collaboration to be successful, it is important that universities take on the role of the intermediary, or in other words, the communicator of the values. Universities must develop the common platform and language that students and industry partners speak, and which can be used to secure a viable connection.

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