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Hilary Brown / Regina Toepfer /
Jörg Wesche (Eds.)

Early Modern Translation and the Digital Humanities

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Early Modern Translation and the Digital Humanities

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Introduction

Hilary Brown, Regina Toepfer, and Jörg Wesche

Research on early modern translation cultures is increasingly benefitting from digital technologies. The ongoing work of libraries to digitalise manuscripts and early printed books has made it easier for researchers to find and access primary material; if you are comparing source and target texts, and thus engaging in the kind of translation analysis which is so fundamental to much translation research, it is of course much easier if one or more of those texts is now available digitally. More and more, we are also learning about resources developed by teams of researchers and IT experts specifically for early modern translation.[1] The majority of projects to date have focused on collecting metadata about translations rather than using digital methods to analyse translations themselves. Examples include the *Renaissance Cultural Crossroads Catalogue*, which lists all known translations into and out of all languages printed in England, Scotland and Ireland (and all known translations into English printed abroad) between 1473 and 1641, and *Encyclopaedias:*

[1] For a good overview, see Belle (2023). There is of course a parallel development across Early Modern Studies more generally; indeed Early Modern Digital Studies is now almost a sub-discipline in its own right, with its own journal and book series. See *Early Modern Digital Review* (2018–) and the 'New Technologies in Medieval and Renaissance Studies' series published by Iter Press.

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Translation and French Encyclopaedism in the Age of Enlightenment (1680–1800), a database of French encyclopaedias and their translations with links to digitalised copies.[2] Other teams have experimented with innovative digital editions, such as *Narragonien digital*, which makes available twelve editions of Sebastian Brant's *Narrenschiff* (1494) in five different languages.[3] The present volume on *Early Modern Translation and the Digital Humanities* aims to take stock of some of the resources currently available or in development for research on early modern translation and to consider what kinds of digital tools might be useful for research in the future.

The volume originates in a two-day online roundtable event on 'European Translation Databases' held in December 2021 as part of the SPP 2130 'Early Modern Translation Cultures'. The original purpose of the roundtable was to explore the feasibility of building a pan-European database of early modern translations. For we had noted that existing databases tended to focus on a defined corpus or language area—such as the *Renaissance Cultural Crossroads Catalogue*—and we wondered about the possibility of creating a bigger-scale database or set of databases on a European scale. Our vision was for a comprehensive online analytical catalogue of translations which would provide information on source text(s), manuscript and print versions, and the different agents involved in the translation process, and which would link where possible to digital texts. At the roundtable, participants shared experiences of developing online bibliographical/translation resources for the Early Modern Period, and discussed the opportunities and challenges of embarking on an ambitious 'umbrella' database project. Following the event, we issued a more general call for contributions for an edited collection in the SPP 2130 series. The present volume includes some chapters based on talks at the roundtable alongside some chapters written expressly for publication.

Early Modern Translation and the Digital Humanities, then, has a slightly wider theme than the roundtable. Some contributors do address the idea of a European translation database. But more broadly, the volume aims to explore how the digital humanities (DH) can usefully be employed for research on early modern cultures of translation. We were happy to receive contributions presenting and evaluating current digital resources; and we also asked contributors to consider issues such as: How might the digital humanities support—or change—research on translation history? What are the questions which digital tools might help us to answer? What new questions might digital resources prompt us to ask? We are pleased to include two chapters describing projects developed under the auspices of the SPP 2130, namely Susanne Greilich and Hans-Jürgen Lüsebrink on the *Encyclopaedias* database, and Anja Wolkenhauer and her team on the *Catalogus Versionum Latinarum* (*CVlat*) which will list translations into Latin of early modern texts. We were of course also pleased to be able to include contributions from colleagues

[2] See https://www.dhi.ac.uk/rcc/ and https://encyclopaedias.uni-regensburg.de/. Accessed: 8 March 2024.

[3] https://www.narragonien-digital.de/exist/home.html. Accessed: 8 March 2024.

working outside the SPP 2130 network. The volume does not aspire to offer comprehensive coverage of all digital resources in this area, and as with all scholarship on technology there is a risk that the volume will soon seem outdated. However, we felt that it would be useful to provide a snapshot of the kind of projects being developed in the early 2020s and of current thinking about the DH in our field as well as to suggest some possible future directions.

1.1 Current Projects

As there have been few attempts to date to catalogue translations systematically, many of the teams creating databases are engaged in work which will lay the foundations for future scholarship: they themselves are piecing together data about translations, drawn from a range of printed and digital sources such as national bibliographies and the catalogues of libraries and archives, sometimes supplemented by further research (for the *Radical Translations* database, for example, which provides information on c. 800 translations from the period 1789–1815, Rosa Mucignat and Sanja Perovic describe how they mined newspapers and other ephemeral media to discover translations which were often published anonymously and are not recorded in standard catalogues). Similar challenges are common to all projects: challenges which may be terminological, methodological, factual or technical.

The challenges begin with a basic but far-reaching issue: there has never been one single definition of 'translation', either in the Early Modern Period or today. Translations are not always identified as translations, either in early modern manuscripts and books or in modern catalogues. An early modern translation may not match our expectations of what a translation usually looks like. Even when a text claims to be a translation or includes a reference to a source-text author, the source text may be rendered in translation with substantial omissions, additions or reworkings. Indeed, a text claiming to be a translation may not even be based on a source but may actually be a pseudo-translation. We can seldom ascertain all details accurately. Often we will be unable to identify the precise source text(s) of a translation. Translators are not always readily identifiable either. As far as we can tell without quantitative data, many translations seem to have been published anonymously or pseudonymously. Moreover, translations cannot necessarily be attributed to a single translator; recent research has underlined the collaborative nature of much translation activity throughout the Early Modern Period. An additional complication is that the information in national bibliographies—which are a key source of data for many projects—is incomplete, prone to errors, and really needs to be verified by checking the physical texts themselves. When early modern texts are catalogued we frequently find variants and differences when these texts are not written in Latin script (as in the case of texts written in Hebrew script, for example).

Alongside decisions about how to define translation and which specific time-period to cover, teams must determine what exactly will be included in their text

corpus. In the case of *CVlat*, the direction of translation, with the target language being Latin, is the central criterion. In the case of *JEWTACT* (a database of early modern translations of non-Jewish texts into Jewish languages) and *Radical Translations*, the teams had to consider their criteria more carefully. First, they had to decide what 'Jewish' or 'radical' might mean: is it a matter of the translator belonging to a specific religious or political group? Is it a question of language? Is it determined by the content of the source text? And then there is the question of what to do with texts if the translator becomes a religious convert or changes their political beliefs. Should *JEWTACT* include translations by Jews which were published by Christians? Should *Radical Translations* include translations by radical reformers who had been assimilated into mainstream society or moderates who seem to have held radical ideas covertly? What is the role of other identity factors such as gender, nationality, social class or education? Any categorisation which is based on personal characteristics will be unstable because these identity markers may change over the course of a person's life.

In some cases, project teams must make decisions about the content and classification of texts on the basis of existing catalogues, without consulting the actual texts (in other cases, particularly when teams are compiling a database of a smaller-scale corpus, their work may include consulting and analysing translations and/or their paratexts). Here we can imagine the DH offering useful quantitative methodologies. Closer co-operation between translation history scholars and IT experts is indispensable in order to achieve this. Indeed, the fundamental issues which all teams developing databases face—longevity, sustainability, and interoperability—can be solved only with input from centres specialising in the DH and with national and international programmes and associations such as National Research Data Infrastructure Germany (NFDI) where "valuable data from science and research are systematically accessed, networked and made usable in a sustainable and qualitative manner for the entire German science system".[4]

The first project presented here is the *JEWTACT* database. Magdaléna Jánošíková and Iris Idelson-Shein (Chap. 2) not only describe their database but also outline the broader cultural context of Jewish translations in Europe between 1450 and 1830: the specific situation of Jews in pre-modern European societies, who shared the same literary interests as their Christian neighbours and were in the privileged position as translators between ancient and modern languages, between East and West. Jewish translation history has been largely neglected by scholars, so the *Online Database of Jewish Translation and Cultural Transfer in Early Modern Europe* (*JEWTACT*) is the first project to offer a survey of Jewish translations of European works in early modern times. The researchers are interested in relationships between Jewish texts and non-Jewish sources and want to investigate how texts were shared across the majority/minority divide. Unlike other translation databases, *JEWTACT* does not focus on a single target language, but due to the Diasporic nature of Jewish languages transgresses spatial, temporal, national and communal borders. In the

[4] https://www.nfdi.de/association/?lang=en. Accessed: 8 March 2024.

database, which contains 800 translations (as at March 2023), you find different Jewish languages: Hebrew, Yiddish, Ladino and Judeo-Italian. The authors describe their difficulties in identifying translations as such, the relationship between *JEWTACT* and other databases, and the challenges of defining Jewish translation and discovering Jewish translations. The *JEWTACT* database treats as a translation any text that was first written in Latin letters and was transferred into Hebrew script, whether the work explicitly marks this relationship or obscures it. The script is prioritized over language. The database shows the permeability of the borders between Latin and Hebrew script across early modern Europe and the major role played by translation in shaping early modern Jewish culture, while at the same time confirming the monopoly of Jewish men (and the exclusion of Jewish women) over translation and scholarship.

In Chap. 3, Julia Heideklang, Moana Toteff and Anja Wolkenhauer provide an overview of their 'Versio latina' project. They describe the four stages of the project and the online catalogue they are developing, the *Catalogus Versionum Latinarum* (*CVlat*). They aim to draw attention to translations of vernacular literature into Latin, an area of translation which has been largely neglected in scholarship to date. They are also exploring the reasons, functions and aims of this area of cultural transfer. As in other projects described in this volume, the team must tackle the challenge of having to assemble data themselves. There is no printed reference work listing early modern translations into Latin, and national catalogues and bibliographies are of limited use. It is therefore impossible to predict how many translations there might have been, particularly in Eastern Europe (or Southeastern Europe), but also in Asia, South America and Africa. Similar to the Jewish translations recorded in *JEWTACT*, the Latin translation activity which will be captured in *CVlat* takes place outside national and linguistic boundaries. The authors cautiously estimate that up to 4000 Latin translations were printed in the Early Modern Period; they are concentrating in the first instance on fictional literature or *belles-lettres*, i.e. fiction and poetry but also travel literature and biographies. The authors conclude the chapter by offering some suggestions about the new perspectives we may gain on international literary and cultural exchanges when more digital data are accessible.

Malika Bastin-Hammou introduces the French *IThAC* project (Chap. 4) and shows its digital methods and some analytical results ("How to Digitally Investigate the Reflexion on Translation in the Sixteenth-Century Paratexts to Ancient Drama"). Although early modern translations of ancient drama appeared in print and circulated widely, it has long been difficult to investigate this corpus because the texts were hard to get hold of and because of linguistic and disciplinary obstacles: experts in the history of ancient theatre do not focus on the Early Modern Period, while Early Modernists are not always able to read Latin and Greek. Bastin-Hammou explains what happened when a multidisciplinary and multi-competent team co-operates. The digital tools developed for the database enable users to search and identify specific texts. The project is based on the FAIR principles, so that the data are available in open access on visualization interfaces. Particularly interesting for translation historians is the early modern metadiscourse on translation in the paratexts of ancient drama, as the chapter shows. Sixteenth-century translators such as Erasmus justify

the act of translation; they discuss how to translate Greek drama; they differentiate between prose and verse translation; and they reflect on how they have translated Greek drama following Latin models.

Bernd Bastert and Johannes Klaus Kipf lead the *ORDA16* project (Chap. 5), which is funded by the Deutsche Forschungsgemeinschaft (DFG, 'German Research Foundation'). *ORDA16* builds on existing work on the reception of classical antiquity in Germany—notably Franz Josef Worstbrock's printed catalogue of German translation of ancient authors (1976)[5]—and updates this information: *ORDA16* provides the first systematic overview of all known translations of ancient authors produced in Germany in the second half of the sixteenth century. In addition, *ORDA16* breaks new ground by including authors from Christian late antiquity. Bastert et al. offer a description of the database, which includes over 850 different translations in manuscript and print. They give details about the current state of research, their sources of data, their criteria for defining a translation, and the technology used to build the database. In the project, they aim to record all known translations into German of classical antiquity with links where possible to digitalised copies. In the second funding phase, the project will be expanded to include transcriptions of all paratexts.

The chapter by Anne Weber, Daniele Moretti, Anna Eschenbach-Dymanus and Vahram Atayan (Chap. 6) offers an overview of a digital project which will be a pioneering resource for research on early modern translation history in the German-speaking area: the *Heidelberger Übersetzungsbibliographie* (*HÜB*)/*Heidelberg Bibliography of Translations of Non-Fictional Texts*. At the moment the database captures information about non-fictional texts only, but it covers a broad historical period (1450–1850), similar for example to Brill's *Enzyklopädie der Neuzeit Online*/*Encyclopedia of Early Modern History Online*. The project has been developed in several stages, all funded by the DFG, and provides information about translations into German from the Romance languages, Latin, English and Dutch, i.e. the European source languages which have played a central role in German translation history at different points in time. Where possible, the database also documents the significance of these languages as intermediary languages. The database offers basic bibliographical information (such as author, translator, editor, place of publication, year of publication) and classifies the texts thematically using the Dewey Decimal system. The database uses Django as its Content Management System and can be accessed in either German or English. Towards the end of the chapter, the authors address the idea of developing a pan-European database, which would build on existing translation databases, and they point to the technical challenges involved in standardising the metadata, ensuring interoperability, and guaranteeing the long-term sustainability of the resource.

In Chap. 7, Susanne Greilich and Hans-Jürgen Lüsebrink discuss the *Encyclopedias* database of French encyclopedias and their translations, an area of translation activity which was central to the formation of knowledge during the Enlightenment.

[5] See Worstbrock (1976).

The chapter gives an overview of the research carried out by the authors during the two funding phases of the SPP 2130 and provides a description of the database which has emerged from this research under the leadership of Greilich and Lüsebrink. In the current phase, they are examining both French and American encyclopedias and their translations. The authors reflect on database development (design, corpus, integration of relevant linked open data) and also offer their thoughts on how databases can help us to analyse specific aspects of translation history. At the same time they acknowledge the limits of such an approach or where this approach leaves questions open (e.g. how to capture partial translations in periodicals or other encyclopedias). They, too, conclude their chapter by reflecting on the idea of pan-European database. They cite the example of the *Heidelberger Übersetzungsbibliographie* (*HÜB*), which built on two previous online bibliographies, to suggest that it may be possible to develop a meta-platform to link up projects such as the *HÜB* and their own *Encyclopedias* database.

The chapter by Rosa Mucignat and Sanja Perovic discusses a project which purposefully has a selective focus (Chap. 8). The team behind the *Radical Translations* database did not set out to capture large-scale information but to identify a body of translations produced during the revolutionary period (1789–1815) which aimed to promulgate ideas about rights, freedom, equality and democracy. They name this corpus 'radical translations'. The team has collected 800 translations to and from English, French and Italian, both of non-literary works such as treatises and of literary works such as novels. The database also includes prosopographical data of no fewer than 475 translators. The selective focus means that the team is able to provide richly annotated material, providing new avenues for scholars working with digital tools to research translation history. The project uses the Library of Congress' Bibliographic Framework Initiative (BIBFRAME), a flexible model for providing bibliographic information which was then adapted in some ways to fit the particularities of the corpus. An example of this is the team's decision to create separate records for paratextual material and add the term 'paratext of' to the BIBFRAME classifications; they then introduced four paratext functions to describe the paratexts systematically as 'meta-communicative', 'community-building', 'hermeneutical' or 'text-activating'. In sum, the chapter shows how digital methods can be employed effectively in smaller-scale and selectively-focused databases to shed new light on translation history.

In Chap. 9, Philipp Hofeneder reflects in a sophisticated way on how digital visualisations of space and time could be put to use in Translation Studies. He offers a theoretical discussion which draws on insights into knowledge and space from Cultural Studies. He discusses the differences and overlaps between three types of visualisations: scientific visualisations, information visualisations and geographic visualisations, while reminding us that the latter two predominate in the arts and humanities. Hofeneder emphasises the question of the intended audience of visualisations and demonstrates among other things how static visualisations and visualisations in interactive and exploratory formats both have the potential to be useful for Translation Studies. In this context, he makes the case that visualisations should ideally be created by those actively involved in a research project, since the

more complex visualisation tools and software programmes require specialised knowledge. Hofeneder's discussion of methods is not an abstract one but is based on an impressive series of visualisations which he himself has created: he uses a case-study of German-Russian knowledge transfer in the eighteenth century (mainly the publications and translations of the pharmacologist Johann Ferdinand Giese) to explore the whole spectrum of spatial and temporal factors which may be relevant for translation history. On the basis of this case-study, he manages to argue convincingly that visualisations should not be employed only to illustrate empirical findings but should be regarded as a method of data interpretation in its own right which can help communicate findings beyond a specific discipline and should be fully exploited as an alternative form of interpretation in the arts and humanities.

The final chapter in the volume returns to the idea of building a European database of early modern translations (Chap. 10). Hilary Brown was a Mercator Fellow on the SPP 2130 and initiated the workshop on 'European Translation Databases' on which this volume builds. In Chap. 10, she presents the *Renaissance Cultural Crossroad Catalogue* (*RCCC*) as a resource which has substantially enriched research on translation in early modern Britain. Brown has a vision of a scaled-up version of the *RCCC* and asks about the feasibility of developing a pan-European translation database for the Early Modern Period. She does not write her chapter as a DH expert, but as a researcher who deals with translation history, especially the history of women translators, and who is convinced that "the future lies to some extent in big data".[6] She argues that quantitative data provide a solid basis for further investigations into the relationship between gender and translation; but they also shed light more generally on macro-contexts and as such are vital for contextualising our individual qualitative studies. Brown considers what an ideal pan-European resource might look like, and discusses the difficulties—conceptual, technical, financial—which would need to be addressed.

We are aware of further projects currently in development which will make data available about early modern translation, such as Sara Miglietti's project 'Writing Bilingually 1495–1700: Self-Translated Books in Italy and France' (Warburg Institute, University of London, 2023–2026, funded by the Leverhulme Trust). Other colleagues have developed databases which have a broader remit but which allow the user to search specifically for translations, such as Martin Korenjak's *Noscemus* Wiki, a database of early modern works on science written in Latin (Leopold-Franzens-Universität Innsbruck, 2017–2023, funded by the ERC), and Dirk Werle's *Heidelberger Eposdatenbank*, a database of several hundred epic verse poems written in the German-speaking area between 1570 and 1740 (Heidelberg University, funded by the DFG).[7]

In fact, it has become standard practice for research projects to include a digital component, and national funding bodies often make this a requirement of funding.

[6] Brown in this volume, Chap. 10, p. 170.

[7] https://wiki.uibk.ac.at/noscemus and https://biblio.ub.uni-heidelberg.de/epische_versdichtung. Accessed: 8 March 2024.

For the German-speaking area, the *HÜB*, which currently captures translations into German from French, Italian, Spanish, Portuguese, Latin, English and Dutch in the period 1450–1850, as mentioned above, appears to be establishing itself as the national database for early modern translation.[8] There are plans to expand the *HÜB* beyond its current focus on German. Data from a number of SPP 2130 projects will be added to the *HÜB*, namely 'Scientific Translations in France in the Classical Era' (led by Andreas Gipper, Diego Stefanelli and Caroline Mannweiler, University of Mainz) and 'Semantics of Translation in Early Modern Narrative Literature' (led by Dirk Werle and Fiona Walter, Heidelberg University). Because things move fast in the world of digital resources, a volume such as ours could not hope to be comprehensive. The web is the ideal place to collect up-to-date information about the resources available, and to this end we have established a Digital Resources page on the History and Translation Network website.[9]

1.2 Future Directions

This volume presents a selection of digital resources currently available or in development for early modern translation and reflects on their value for research. It shows how digital projects can support research in important and promising ways, particularly in such a multidisciplinary field. Although Early Modernists pursuing qualitative research have produced many impressive studies on translation cultures in this period, we still lack basic data in many areas.[10] Thus it makes sense to continue to build databases containing quantitative information about early modern translation. In doing so, we need to be aware that there was considerable variation in the translation cultures of the Early Modern Period, particularly when we view these translation cultures in a transnational or even global perspective. This does not apply only to Europe, of course. But in the case of Europe, translation cultures were closely linked to the rise of vernacular languages and the development of printing; at the same time manuscript and print continued to exist side-by-side and the relationship between them was complex.[11] Histories of translation in early modern Europe would

[8] Note that like the *RCCC* and most other databases, the *HÜB* does not include manuscripts.

[9] https://historyandtranslation.net/category/digital-resources/. Accessed: 8 March 2024.

[10] Cf. Boutcher (2015). The situation has improved since Boutcher made the case for digital tools in 2015 but many of the new resources we are aware of provide data on translations into Western European languages and it seems there is still a paucity of resources focusing on Eastern Europe and other parts of the globe. Incidentally, Mirosława Hanusierwicz-Lavallee (Catholic University of Lublin) has informed us that she and her colleagues are collecting data on translations in early modern Poland for an Encyclopedia project but have no plans at the moment to make the data public or to develop a database.

[11] Burke (2007) provides a brief but still classic overview of translation cultures in early modern Europe (it is worth noting that he relies to some extent on very old sources of data, such as lists of translations published in the first half of the twentieth century).

do well to integrate research from a range of disciplines: languages and literature, history, art history, music. Digital projects are ideal for bringing together researchers from different disciplines. Combining separate projects is in theory possible thanks to Semantic Web technologies now being adopted in the DH, notably linked open data. When teams developing digital projects adhere to common standards in project design and use of technology, quantitative data can be aggregated and meaningful results produced relatively quickly.[12]

Discussions about linked open data also show where we currently are when it comes to researching translation using digital tools. Most project teams are still concerned chiefly with data collection: most projects focus on collecting metadata about translations, while inputting complete texts is still in the early stages. Of course, translation databases could easily integrate machine-readable and machine-understandable texts. However, only a few projects are going in this direction. Examples discussed in this volume are the *ORDA16*, which will include transcriptions of all paratexts from the first editions of the translations recorded in the database, and the *IThAC* project, which is a corpus of paratexts of sixteenth-century editions of ancient drama, translated into French. It is also likely that the long-term provision of digital texts will be secured not through separate digital editions or corpus projects but rather through collaborative initiatives along the lines of Text+ and 4Memory, two consortia of the German NFDI project which will establish a national research data infrastructure to preserve text- and language-based research for the foreseeable future.[13]

Thus, we see two paths emerging for research into early modern translation using digital tools: the capture and analysis of metadata on the one hand, and corpora on the other. As this volume demonstrates, it is the former which predominates at the moment, and in particular the development of databases. We can use databases for both qualitative and quantitative studies. A database can provide initial information about a text or group of texts for researchers undertaking qualitative research. Individuals undertaking quantitative research will be able to use the same database to explore the metadata. For example, they could mine the data to analyse translation trends (genres, domains) in a specific target culture over a specific length of time. Conceivably, this might confirm that most of the texts selected for translation—within the parameters of a specified place and time—were of a theological nature.[14] The georeferencing of datasets can then provide information about the centres of

[12] The issue in our field is that projects have been developed independently to date, and merging existing datasets poses technical challenges which are incredibly time-consuming to address and may even prove insurmountable. See the chapters by Weber et al. (Chap. 6) and Brown (Chap. 10) in this volume.

[13] See https://www.text-plus.org/en/ and https://4memory.de. Accessed: 8 March 2024.

[14] See Barker and Hosington (2013) which showcases some of the research enabled by the *Renaissance Cultural Crossroads Catalogue* soon after the database was launched.

[15] Hofender describes in Chap. 9 of this volume how he has fed data into Adobe Illustrator to create visualisations of the spatial and temporal dimensions of translation in early nineteenth-century Russia but he does not appear to have extracted his data from a specific database.

translation activity in this period and relational translation spaces.[15] For instance, depending on the datasets available, a researcher might be able to place the French reception of German baroque poetry in a quantitative relationship to the reception from Dutch. Prosopographic metadata also enable network analysis research, for example in making visible collaborative translation practices or enabling us to extract statistical information about the proportion of women and the importance of family ties in early modern translation cultures.[16]

While some DH methods are already being put to good use in research on translation history, the heuristic potential of corpus analysis methods is much more difficult to assess. For one thing, researchers in cultural history are not necessarily interested only in the translation of texts from one language into another, but work on early modern 'translation' encompasses intralingual translation, intersemiotic translation and 'cultural translation' in a loose sense as well as multimodal artefacts (e.g. emblematics), non-linguistic codes (e.g. musical scores) or even non-written forms (e.g. architectural translations).[17] It is possible, therefore, that research could harness not just distance reading methods from the DH but could apply and combine distant reading with distant viewing and distant hearing methods in hybrid corpora. Of course, translation scholars have been undertaking computer-supported research for years but their object of study has seldom been historical translation; in corpus-based Translation Studies, there are undoubtedly specific challenges in assembling parallel corpora of early modern source and target texts, given that the use of multiple sources was common and it is often difficult—if not impossible—to ascertain the precise source(s) used by a translator. Drawing on methods from Corpus Linguistics and Computational Text Analysis, though, researchers could gain insights into syntactic translation strategies in a (partially) automated manner with the help of POS or part-of-speech tagging; or they could use topic modelling to reveal information about the stability and variance of rhetorical strategies in different translations of the same source text. Analysis of word frequency could generate new insights into the emergence of specialist terms, while sentiment analysis could demonstrate polarity changes in translation processes, for example with regard to gender constructions in ancient heroic epics and their transfer into Early New High German literature. Annotation tools such as CATMA can also be used to determine and quantify systematically the specific modalities of translations (interlinear parts, glossing, paraphrasing, deletion, etc.).[18]

[15] Hofender describes in Chap. 9 of this volume how he has fed data into Adobe Illustrator to create visualisations of the spatial and temporal dimensions of translation in early nineteenth-century Russia but he does not appear to have extracted his data from a specific database.

[16] See e.g. Belle and Guénette (2022) and more generally Armstrong (2019).

[17] For an introduction to the different concepts of translation explored by the SPP 2130 see Toepfer et al. (2021).

[18] Belle (2023) also discusses how text analysis programmes such as Sketch Engine or plagiarism detection software may be usefully employed for analysing early modern translations. For a good overview of the range of digital tools which could be applied to translation history research (and some of their limitations), see Wakabayashi (2019).

Modern stylometry may also shed new light on early modern translation. Stylometric methods may be useful for helping to clarify questions of translator attribution and exploring the distinctiveness of the work of individual translators. As far as attribution is concerned, widely-accepted methods of authorship attribution such as Burrow's Delta, which measures word frequencies, have generated unreliable results when applied to contemporary literary translations because of the presence of the source-text author in the translated text.[19] However, a recent study by Hasse and Büttner of medieval translations of philosophical texts based on the Delta procedure claims to be more revealing—the authors posit that translators of non-literary texts may be less constrained by source-text author style—suggesting that computational stylometry may help in identifying the translators of texts produced anonymously in earlier historical periods, at least in non-literary genres.[20] That said, it will be interesting to reflect on the limits of stylometric methods in attributing translations to individuals in an age when collaboration appears to have been such a common practice (incidentally Hasse and Büttner acknowledge that one of their medieval translators "worked together with Arabic-speaking scholars, the Jew Avendauth and the Mozarab Johannes Hispanus" though their experiment was set up to identify individuals only).[21] Is it possible, even, that digital paleography may end up being more fruitful in our field, given the existence of collaboratively-produced manuscript translations in unidentified hands? As for translator style, researchers have on occasion examined corpora which have included historical translations. Thus Burrows et al. compiled a database of verse by twenty-five English poets of the late seventeenth century and added to it fifteen English translations of Juvenal's tenth satire, including translations by Henry Vaughan (1646), Thomas Shadwell (1687) and John Dryden (1693).[22] Burrows used his Delta procedure to measure stylistic differences between the fifteen translations and between individual poets' translations and their other verse, finding for example that Dryden left a less marked stylistic signature on his translation work than did Samuel Johnson.

Ultimately, we can imagine various ways in which computer-supported research might open up new perspectives for the analysis of early modern translations. But undertaking such research in future will rely on two crucial factors: first, on the effective combination of quantitative and qualitative methods in the sense of 'scalable reading' and second, on the willingness of researchers in our field to initiate projects which employ a range of different methods from the DH. We hope that this volume will encourage researchers to continue with their valuable DH projects in our

[19] Rybicki (2012).

[20] Hasse and Büttner (2018, p. 358).

[21] Hasse and Büttner (2018, p. 365). Cf. Rybicki and Heydel (2013), who used stylometric methods successfully to ascertain which parts of a collaborative translation could be attributed to each of its two translators (though note that this was a distinctive form of collaboration as the first translator left an incomplete draft on her death which was finished by the second translator).

[22] Burrows (2002).

field, and we look forward to seeing how digital approaches to early modern translation history develop in future.

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Chapter 2
The *JEWTACT* Database: Redefining the Jewish Archive

Magdaléna Jánošíková and Iris Idelson-Shein

The position of Jews in European premodern societies generated a complex sociolinguistic reality. Although they often spoke the vernacular languages of their surrounding cultures, and even, in some cases, were proficient in Latin, premodern Jews primarily communicated with one another in their own culturally distinct languages and, in many cases, in their own distinct script.[1] For many medieval and early modern Jews, Hebrew script defined the borders not only of literacy, but also of literary legitimacy. This is not to say, however, that premodern Jews did not consume extra-Jewish literature. In fact, early modern European Jews were fascinated by the same works that captivated their Christian neighbours; they enjoyed literary classics, such as Bocaccio's *Decameron* or Defoe's *Robinson Crusoe*, and were enthralled by the philosophical innovations and scientific developments which featured in the works of Newton, Copernicus, or Descartes. They delighted in the

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[1] Turniansky (2009), Zwiep (2009).

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heroic escapades of chivalric knights, such as Bevis of Hampton or Wigalois, as well as in the prurient adventures of picaresque fools, such as Eulenspiegel or the Schildbürger. But these literary, philosophical, and scientific innovations reached most Jewish readers in a mediated, often heavily 'Judaized' form, through the medium of translation. Indeed, for most Jews in central and eastern Europe (and to some extent, in Italy before the seventeenth century), translation into Jewish languages, and particularly into Hebrew script, was a prerequisite for participation in the cultural ferment of their times.

That translation has played a central role in Jewish history has long been recognised by scholars of the Jewish past. Studies have shown how from antiquity, through the Middle Ages, and into modern times, translation enabled Jews "to define their own hybrid identity, and to retain control over their essential values in relation to the powers-that-be."[2] A minority culture, struggling to maintain its cultural and religious coherence and distinctive identity over large swaths of time and space, for much of history translation was a precondition for Jewish survival. At the same time, their liminal position between Christianity and Islam, Europe, Asia, and Africa, past and present, allowed Jews to assume a privileged position as translators of science and philosophy between ancient and modern languages, as well as between East and West. As Naomi Seidman remarks, "the Jew—almost by definition—is Europe's translator."[3] And yet, while a great deal of research has focused on medieval and modern translation into Hebrew, the phenomenon of Jewish, and particularly Hebrew translation in the Early Modern Period has been marginalized by both scholars of Jewish history and of European (*non-Jewish*) history.[4] In fact, while the past two decades have witnessed an explosion of interest among Early Modernists in translation as a primary mechanism of historical change in Europe and beyond, historians and literary scholars have only rarely engaged with translations produced by Jews living in their areas of historical interest.[5]

This is not to say that early modern Jewish literature has been read as entirely disconnected from other linguistic and cultural corpora. As discussed below, a relatively rich corpus of studies has discussed the role of translation in the emergence

[2] Rajak (2009, p. 7).

[3] Seidman (2006, p. 16).

[4] On Hebrew translation in the Middle Ages, see Steinschneider (1893), Sermoneta (1969), Langermann (1999), Fontaine and Freudenthal (2013), Fidora et al. (2013). On translation in the modern period see, e.g., Toury (2002), Frieden (2016), Shavit (1992, 2020).

[5] See, e.g., the recent edited volumes on early modern translation such as Burke and Hsia (2007), Newman and Tylus (2015), Pérez Fernández and Wilson-Lee (2014), Fransen et al. (2017). A recent exception is found in the volume *Übersetzen in der Frühen Neuzeit – Konzepte und Methoden/ Concepts and Practices of Translation in the Early Modern Period* edited by Regina Toepfer, Peter Burschel, and Jörg Wesche, which includes essays on one eighteenth-century Yiddish translation. See Siluk (2021).

of Yiddish *belles-lettres*.[6] In addition, Hebrew works which were produced in Europe and elsewhere between 1500 and 1780 are often understood to have been influenced by European intellectual trends.[7] Nonetheless, the conceptualisation of these connections and their assessment has often been marred by methodological ambiguity, and the specific mechanisms of their transmission have remained largely understudied. Jewish historians often rely on the nebulous notions of "influence" or "*Zeitgeist*" to explain the similarities between Jewish and non-Jewish literature, thought, and culture.[8]

Currently in its final stages of development, the *Online Database of Jewish Translation and Cultural Transfer in Early Modern Europe* (*JEWTACT*)[9] offers a way out of this methodological vagueness. Drawing on the collaborative work of ten principal researchers, the database aims to offer an exhaustive survey of the corpus (or corpora) of Jewish translations of European works, produced in Europe between 1450 and 1830. Enlisting translations from such languages as Latin, German, Italian, Dutch, or French—to Hebrew, Yiddish, Ladino, and Judeo-Italian, the database maps the concrete routes of cultural transfer between Christians and Jews in early modern Europe. It establishes the empirical relationships between Jewish texts and their non-Jewish sources, considering not only *what* was shared across the majority/minority divide, but also *how* it was shared.[10]

As of September 2022, the *JEWTACT* database contains just over 600 translations, the majority of which have not been studied to date or have received only scant scholarly attention. To the extent possible, it provides publication details and information on the creators of both the target and source texts, and, where relevant, on any mediating texts used by the translators. The database's digital interface features a wide range of search and browse options, from free text search to advanced search options which enable users to conduct their own, independent research (Figs. 2.1, 2.2, 2.3). Thus, it is possible to conduct highly specified searches, limiting search terms to target or source texts, to search for translations which acknowledge, partially acknowledge, or entirely conceal their sources, to search for translations between specific languages, within specific date ranges, or within specific genres. To narrow results even further, it is possible to combine these various parameters (for instance, to search for unacknowledged translations from Latin to Yiddish, which appeared between 1500 and 1802). In addition, users may

[6] See p. 31 below for some examples. More recent work has begun to reveal the importance of translation in the shaping of other genres of Yiddish literature. See, e.g., Voß (2022), Wallet (2012).

[7] For notable examples, see Bonfil (1991/1994), Ruderman (1995), Feiner (2017/2020), Kahana (2021).

[8] Idelson-Shein (2021, pp. 58–60). For a critique of the benefits of 'influence' as an analytical tool more generally, see Even-Zohar (1990).

[9] *Jewish Translation and Cultural Transfer in Early Modern Europe* (*JEWTACT*). Database: https://aranne5.bgu.ac.il/jtact/index.php. Accessed: 1 September 2022.

[10] The *JEWTACT* database focuses on translation between Christians and Jews in early modern Europe and does not discuss intra-Jewish translation in the same period – a much wider and even more diverse phenomenon that requires a study of its own.

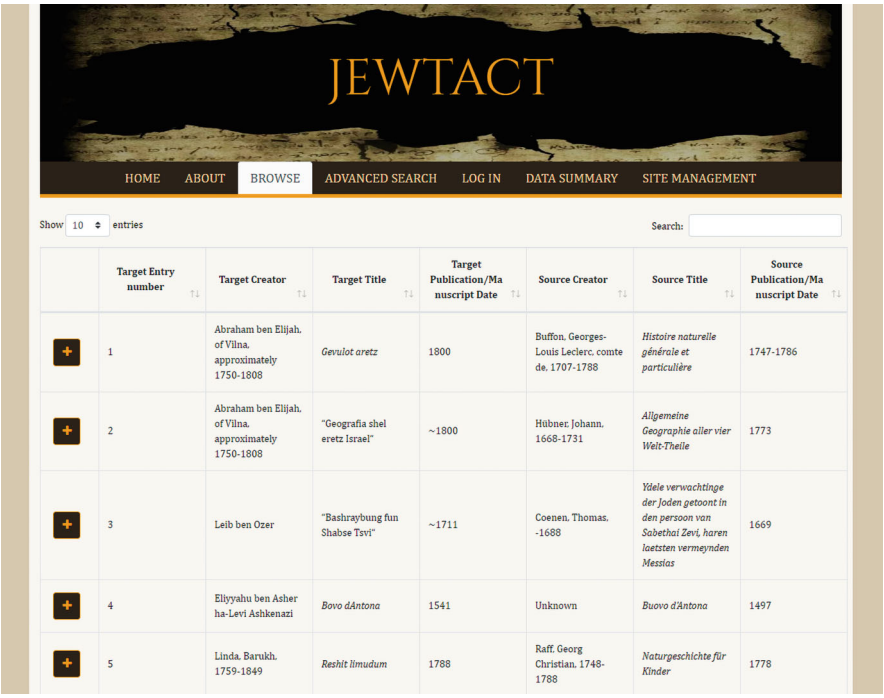

Fig. 2.1 The *JEWTACT* database: Browse and simple search

simply browse entries, sorting them by creator name (whether source or target), text title, publication or manuscript date, or entry number. A live browsing function is also available, allowing users to run an AJAX search through the entire database, thus displaying results as the user types characters in the input box.

Designed entirely in English and with non-specialists in mind, the *JEWTACT* database aims to familiarize the phenomenon of Jewish translation to scholars outside the field of early modern Jewish history, and to increase Jewish visibility in the fields of early modern European history, comparative literature, and Translation Studies. Expanding the geographical and linguistic limits of similar projects of European significance, such as the *Renaissance Cultural Crossroads Catalogue* or the subject-specific *Online-Repertorium Deutsche Antikenübersetzung 1501–1620/ Online Repertory of German Translations of Antiquities* (*ORDA16*), the *JEWTACT* database connects early modern European works with their Jewish translations, thus providing new data to supplement, and possibly complicate findings obtained by previous studies. Drawing on the expertise and collaboration of a network of scholars of Jewish and European history, literature, philology, and culture, we strive to put forth a powerful digital tool that will allow scholars to frame the study of Jewish texts in a wider European context, on the one hand, and to diversify our understanding of European literature, translation, and history on the other.

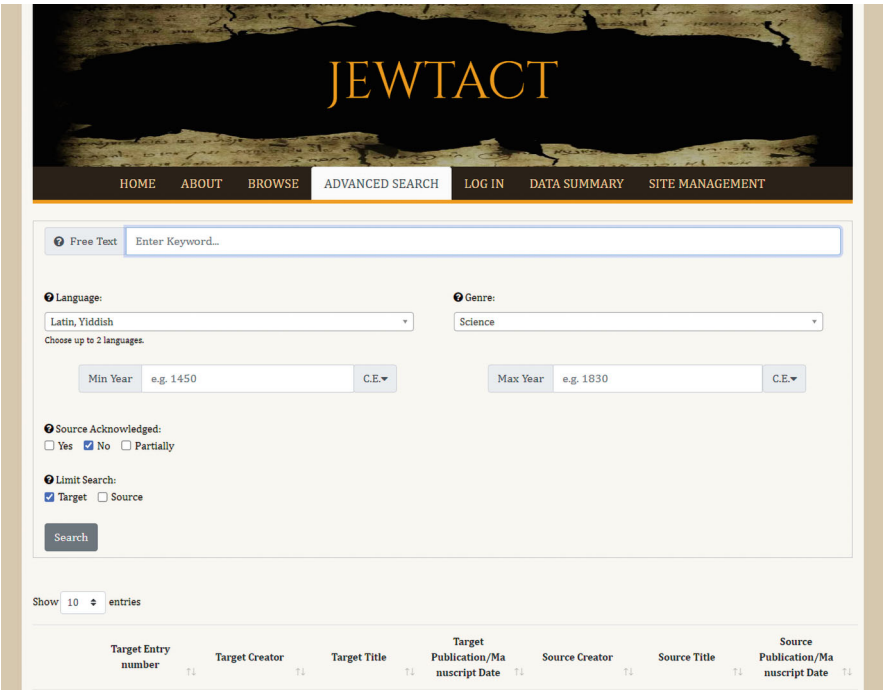

Fig. 2.2 The *JEWTACT* database: Advanced search options

2.1 Correspondence with Other Databases

In 2015, Warren Boutcher bemoaned "the paucity of online tools designed specifically to facilitate the study of translations in their macro-contexts."[11] As Boutcher notes, this paucity stems from the fact that the majority of "bibliographic projects have traditionally been designed to list national literatures, not the migration of texts between them."[12] Thanks to its inherently transregional nature, early modern Jewish translation offers a corrective to this limited focus. Due to their Diasporic nature, Jewish languages—Hebrew, Yiddish, Ladino, and the various local Judeo-dialects—necessarily transgressed spatial, temporal, communal and later national borders. In addition, throughout the Early Modern Period, Jews formed a culturally, linguistically, and religiously discrete minority. The study of Jewish translation thus contributes not only to cross-comparative Translation Studies between national corpora but is also conductive to creating a history of early modern translation that does not overlook minority voices.

[11] Boutcher (2015, p. 24).
[12] Boutcher (2015, p. 24).

(a)

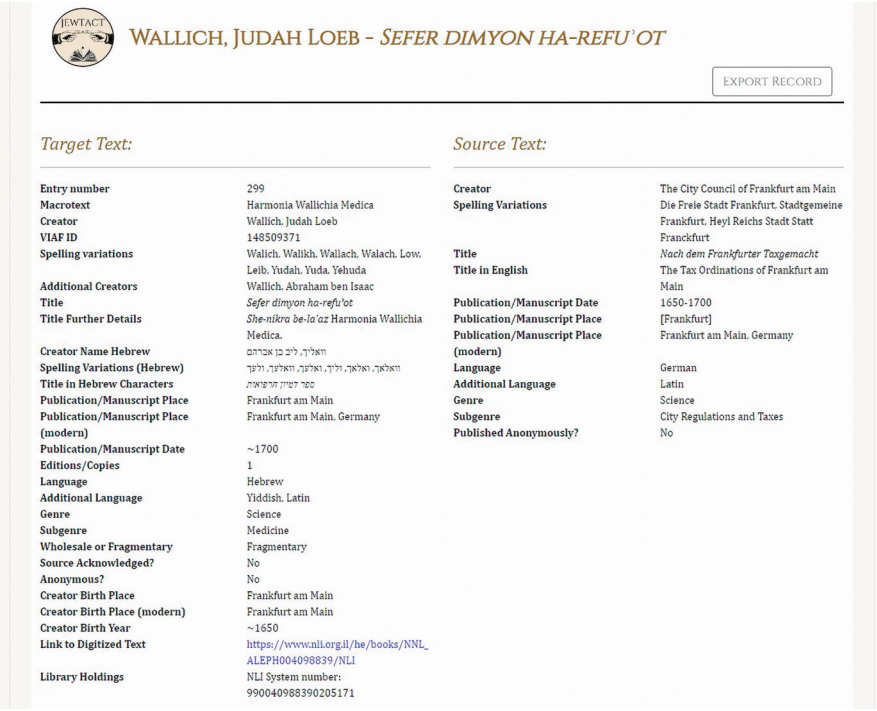

Fig. 2.3 (**a**) Individual entry, (**b**) Individual entry, (**c**) Individual entry

The tangential situation of Jews as the largest ethnic minority in early modern Europe is reflected in Jewish literature of the era. As historians have shown time and again, for much of history, Jewish existence in Europe was a complex matrix of sameness and otherness, identity and difference. It is only fitting then, that in creating a database of early modern Jewish translation, we strove to design a digital catalogue that is, to paraphrase the famous adage, almost the same as other DH projects, but not quite.

Thus, for instance, in deciding on a start and end point for the database, we were required to answer the thorny question of when, exactly, did Jewish early modernity begin and end. The latter part of the question in particular has, over the past few years, been the focus of lively debate among historians. Shmuel Feiner has recently put forth the provocative claim that “the eighteenth century was the Jew’s first

(b)

Mediating Text:

Creator	The City Council of Frankfurt am Main
Title	*Valor sive taxatio medicamentorum, tam simplicium quam compositorum, quae in Officinis Francofurtanis prostant. Tax und Werth aller deren Artzneyen welche in den Apothecken zu Franckfurt anzutreffen und zufinden.*
Title (English)	The Tax Regulations Concerning the Simples and Composites found in the City of Frankfurt
Publication Place (modern)	Frankfurt am Main
Publication/Manuscript Date	1612-1695
Language	German
Source Acknowledged?	Yes
Genre	Science, City Laws and Taxes

General:

Translation Method	Transcription with a few Hebrew additions.
Remarks	The last section of Wallich's *Sefer dimyon ha-refu'ot* contains materia medica with its pricing. The organization and contents of the section are derived from tax regulations issued by the Frankfurt city council. Wallich's prices do not follow any of the known price lists printed between 1612 and 1695. Yet the names and organization of medical ingredients are almost certainly adopted from these printed lists (*Valor sive taxatio medicamentorum*). These texts circulated together with other regulations pertaining to the city's medical order (*Reformation oder Erneuerte Ordnung deß Heyl. Reichs Statt Franckfurt am Mayn, die Pflege der Gesundheit betreffend*). Wallich superimposed the division into ten chapters over the alphabetical organization of *materia*. The division into ten chapters and sub-chapters is repeated throughout the book. Wallich introduces the text in Hebrew, uses Hebrew terms in headlines, and finds Hebrew equivalents for some Latin and vernacular terms (e.g. *mi-minei ḥomets she-nikra aciṭa* for *Aceta Varia*). However, the greater part of the list contains transliterated German terminology.
Further Reading	New Discovery
Inspected by Team?	Yes
See also	295.
Entry Author	Magdaléna Jánošíková
Entry Created	December, 2019

(c)

Fig. 2.3 (continued)

modern century."[13] On the other hand, David Ruderman has argued that "from the perspective of the dynamic intellectual universe of the sixteenth and seventeenth centuries, the eighteenth century in Jewish thought seems rather unspectacular in the novelty of its formulations and in the intensity of its contacts with the outside world."[14] Jonathan Karp and Adam Sutcliffe, the editors of volume 7 of the

[13] Feiner (2017/2020, p. vii).

[14] Ruderman (2018, p. 1099).

Cambridge History of Judaism, dedicated to the Early Modern Period, adopt a time frame of 1500 to 1815. Explaining this periodization, Karp and Sutcliffe argue that whereas historians of western and central Europe often take the French Revolution to be the starting point of the modern era, "Jews were so dispersed geographically that no single watershed event reverberated in its effects to encompass all or most of them." In addition, they note that "modernity itself took different forms and developed at different times depending on the nature of the surrounding political culture and social structure."[15] Our own decision to set the temporal borders of the database at 1450–1830 was made to allow us to trace the movement of Jewish translation from late-medieval Spain, Italy, and Provence, to early modern Italy and central Europe, and from there to eastern Europe and the Ottoman Empire.

Another unique feature of the *JEWTACT* database is its criteria for the inclusion of texts as translations. In setting up these criteria, we considered the definition of translation offered by the database of early modern translations into English, *Renaissance Cultural Crossroads Catalogue* (*RCCC*), edited by Brenda M. Hosington. The *RCCC*'s definition suggests that a work may be identified as a translation "as long as more than one third of the printed text is in fact a translation."[16] However, because it aspires to uncover the hitherto largely unknown mechanisms of cultural transmission between early modern Christians and Jews, the *JEWTACT* database posits a much lower threshold for the inclusion of texts as translations. The database includes both wholesale translations (that is, translations which comply with the *RCCC*'s definition) and translated fragments of only a few lines. The two are distinguished in the database, and users may search for wholesale or fragmentary translations either separately or in combined form.

In comparison with other databases of early modern translations, then, the dataset of the *JEWTACT* database is temporally, geographically, and linguistically (more on this below) more diverse. At the same time, the number of entries is considerably smaller than the major databases in the field. The *JEWTACT* database contains just over 600 entries as of September 2022. This figure includes manuscripts and printed books, wholesale translations and translated fragments, works in various genres, and isolated translations which appeared in anthologies or collections (the database terms such collections 'macrotexts'). Compare this with the *RCCC*, which, at the time of writing, enlists over six thousand printed translations produced primarily in the British Isles between 1473 and 1640; or with the *Heidelberger Übersetzungsbibliographie* (*HÜB*) which focuses on German translations produced between 1450 and 1830 and contains no fewer than 33,233 results as of September, 2022.[17] While we anticipate that the *JEWTACT* database will continue to grow over time, we recognize that it will never reach these proportions.

[15] Karp and Sutcliffe (2018, p. 6).

[16] See introduction to *RCCC*. https://www.dhi.ac.uk/rcc/index.php?page=introduction. Accessed: 8 September 2022. This criterion has been adopted also by other databases. See, e.g., the definition offered by the *Online-Repertorium Deutsche Antikenübersetzung 1501–1620* (*ORDA16*): http://www.orda16.gwi.uni-muenchen.de/. Accessed: 1 July 2022.

[17] *Heidelberger Übersetzungsbibliographie* (*HÜB*). https://hueb.iued.uni-heidelberg.de/en/. Accessed: 15 September 2022.

In part, this is because of the smaller scale of Hebrew printing in early modern Europe. Thus, whereas the *English Short Title Catalogue* (*ESTC*) records 123,855 printed books in English between 1500 and 1699, and *VD16* and *17* combined list a staggering 415,491 items printed in the German-speaking realm (as of September 2022), the most comprehensive bibliography of Hebrew books, the *Computerized Thesaurus of the Hebrew Book*[18] records a total of only 6722 titles printed in Hebrew letters for the same period. Another widely used database, *The Bibliography of the Hebrew Book* (*BHB*), a cumulative database of all titles in Hebrew characters printed between 1473 and 1960 housed at the National Library of Israel and integrated into the collective Union List of Israel catalogue, contains 4055 entries, omitting works with no precise date.[19]

Another reason for the disproportion is the limited research on early modern Jewish translation to date. As discussed above, Jewish translation history has, until recently, largely neglected the Early Modern Period, especially as concerns Hebrew translation during the era. Existing bibliographic resources reap the results of this scholarly neglect, transforming the dearth of research into a putative historical absence.[20] A search for the term *tirgum* (the term for translation in contemporary Hebrew, which, in the Early Modern Period, denoted biblical translations in particular) and adjacent terms in the two major bibliographic databases for Jewish literature, the *BHB* and the *Computerized Thesaurus of the Hebrew Book*, generates thousands of entries. Yet only a handful of these are works produced before 1800, and of these, the vast majority are intra-Jewish or biblical translations. A targeted search for individual translations reveals that even well-known translations of non-Jewish works into Jewish languages are not regularly identified as such in both databases.[21] The *Computerized Thesaurus* is particularly consistent in presenting early modern translations without acknowledging their relationship to non-Jewish works, listing several unambiguous Yiddish translations of well-known works such as *Eulenspiegel*, *Die sieben weisen Meister*, and *Herr Dietrich* without referencing their German sources. As a result, while both databases constitute invaluable bibliographical tools for scholars interested in Jewish book history, reliance on these databases alone is liable to reproduce the now widely contested view of the premodern Jewish literary realm as isolated from its surrounding environments.

The state of the research into Jewish translations, its paucity, and the lack of systemic approaches towards translations in current digital databases and online catalogues have shaped the nature of our work on the *JEWTACT* database. Unlike

[18] *Computerized Thesaurus of the Hebrew Book*. https://otzarhasefer.com/. Accessed: 15 September 2022.

[19] *The Bibliography of the Hebrew Book*. Database: http://web.nli.org.il/sites/NLI/English/infochannels/Catalogs/bibliographic-databases/Pages/the-hebrew-book.aspx. Accessed: 1 August 2022.

[20] Idelson-Shein (2021, p. 57).

[21] See, e.g., the entries for the Yiddish translation of the Italian *Buovo d'Antona*; entry no. 30735 in the *Computerized Thesaurus*, Entry no. 000331586 in *BHB*.

other DH projects on early modern translation, such as the *RCCC* or the *HÜB*, *JEWTACT* has no online bibliography which systematically catalogues translations to rely on, such as the *ESTC* or the ever-growing *Universal Short Title Catalogue* (*USTC*).[22] In preparing the database, we did find recourse to several printed bibliographies. Particularly useful were Moritz Steinschneider's well-known bibliography of medieval Hebrew translation published in 1893, his earlier articles in *Serapeum* on Yiddish literature (both in German), Sara Zfatman's annotated bibliography of Yiddish prose works from 1504 to 1814 (in Hebrew), and other works on specific small corpora of Jewish literature.[23] As the reader will note, while these bibliographies discuss translation to varying degrees, each is devoted to an isolated realm of Jewish literature. There is no bibliography that catalogues early modern Hebrew, Yiddish, Ladino, and Judeo Italian translations in tandem, and no bibliography specifically dedicated to early modern Jewish translation in any of these languages. In this sense, the *JEWTACT* database represents the first attempt to study early modern Jewish translation as a sustained phenomenon, across various Jewish languages. It is the first resource to identify the diverse geographies and cultures that shaped the literature in these languages, and to grasp the phenomenon of Jewish translation in a holistic and comparative manner.[24] The majority of entries which appear in the *JEWTACT* database thus draw not on existing bibliographies, catalogues, or databases, but rather on data-scraping, literature review, and original research.

All this is not to say that the Jewish translation has not yet entered the digital humanities. There are, to the best of our knowledge, two digital databases that devote sustained attention to the phenomenon of translation into Jewish languages. Unsurprisingly, both are dedicated to the medieval and Enlightenment periods, the two periods traditionally viewed as epochs in which Hebrew translation thrived.[25] The first of these databases is the *PESHAT* database, spearheaded by Giuseppe Veltri and

[22] See also the use of Worstbrock (1976) by *Online-Repertorium Deutsche Antikenübersetzung 1501–1620* (*ORDA16*: www.orda16.gwi.uni-muenchen.de. Accessed: 14 September 2022) and the *Marburger Repertorium zur Übersetzungsliteratur im deutschen Frühhumanismus* (*MRFH*: https://www.mrfh.de. Accessed: 14 September 2022). Similarly, their use of *VD16* and *VD17*. See also *Cultural Crosscurrents Catalogue of Translations in Stuart and Commonwealth Britain (1641–1660)* (https://catalogue.crosscurrentscatalogue.ca/. Accessed: 1 August 2022) led by Marie-Alice Belle and its work with *Early English Books Online* (*EEBO*).

[23] Steinschneider (1893), Steinschneider (1848–1849, 1864, 1866, 1869), Zfatman (1985).

[24] In this article, we refer to "Jewish translation" as a discrete phenomenon. It is however important to note that there are important regional, linguistic, temporal, and other differences within and between the various corpora of Jewish translation. For an overview of these, see Idelson-Shein (2024).

[25] Idelson-Shein (2021).

Reimund Leicht, which offers a thesaurus of Medieval Hebrew philosophical and scientific terms.[26] *PESHAT* builds on the generations of scholarship into the medieval Hebrew translations in twelfth- to fourteenth-century Spain, Provence, Sicily, and the Italian-speaking realm, a field first established by Steinschneider's aforementioned bibliography.[27] The *PESHAT* database reveals the ways in which medieval Hebrew philosophical and scientific literature and terminology emerged from intense dialogue with literatures produced in other languages, particularly Latin, Arabic, and Greek. Since, as Veltri and Leicht argue, "the formation of the bulk of Hebrew terminology was due to the efforts made by medieval Jews to translate theological, ethical, philosophical, scientific, and medical works from Judeo-Arabic, Arabic, and Latin into Hebrew",[28] translation plays a prominent role in this project. The database includes a scientific and philosophical thesaurus, which seeks to reflect the role played by translation and cultural transfer in the emergence of Hebrew, Latin, and Arabic scientific and philosophical terminology in the Middle Ages.[29]

A second database that is attentive to the phenomenon of translation is the *Library of the Haskala* database. This database constitutes an online catalogue of German and Hebrew books from the mid-eighteenth century to the late nineteenth century, which the editors identify as belonging to the literature of the Jewish Enlightenment or Haskalah. The *Library of the Haskala* database is the result of a collaborative research project headed by Shmuel Feiner, Zohar Shavit, and Christoph Shulte. While not specifically devoted to translation (the database's primary aim is to investigate the development of modern Jewish book culture), it makes a point of identifying individual titles which are translations from non-Jewish languages, and, in some cases, provides basic information on their sources.[30] This particular interest in translation is unsurprising given Shavit's involvement in the project. Shavit views Hebrew translation around the end of the eighteenth century as a major ideological project of the Jewish Enlightenment, which aimed to import new ideals, norms, and literary forms from the surrounding German environment in a domesticated and often concealed form (see more on concealment below).[31] However, created during

[26] *PESHAT*. https://www.peshat.org/. Accessed: 27 July 2022.

[27] Steinschneider (1893). While Steinschneider was specifically interested in Hebrew translation from Arabic, in recent years, increasing attention has been given to translation between Latin and Hebrew. See, e.g., Fontaine and Freudenthal (2013), Fidora et al. (2013). Steinschneider also contributed immensely to the study of Yiddish translations, as discussed below.

[28] Leicht and Veltri (2019, pp. 7–11).

[29] PESHAT in Context - A Thesaurus of Pre-Modern Philosophic and Scientific Hebrew Terminology, ed. Leicht and Veltri. Database: https://www.peshat.org/. Accessed: 27 July 2022.

[30] *Library of the Haskala*. Database: www.haskala-library.net. Accessed: 1 August 2022.

[31] Shavit (2020, p. 76). See also Frieden (2016).

the early stages of the development of DH projects, between 2004–2010, the *Library of the Haskala* database offers limited search and browse options. It is furthermore largely produced in Hebrew, and is primarily aimed at specialists and historians of the Jewish Enlightenment.[32]

Whereas the *PESHAT* and the *Library of the Haskala* databases overlap only with the temporal margins of the *JEWTACT* project, there is one digital database that, while not dedicated to translation specifically, is focused on the same time period as the *JEWTACT* database and exhibits a similar interest in uncovering routes of knowledge transfer among early modern Jews. We refer here to *Footprints: Jewish Books Through Time and Place*, a digital database which aims "to build a composite view of the movement of Jewish texts and ideas from place to place and across time." The aims and methodology of the *Footprints* database closely correspond with those of the *JEWTACT* project. However, whereas *JEWTACT* is interested in the movement of information, Footprints is a material-texts project that, using provenance research, is based on the movement of objects as a basis for thinking about knowledge transfer.[33]

2.2 Challenges

As a result of its initial nature, in defining the contours of the *JEWTACT* database, the editors were required to tackle several challenges, arising from the unique nature of early modern Jewish history and translation. The first of these challenges, was to formulate a working definition of 'Jewish translation', the second was to identify the translations themselves. We turn now to a discussion of each of these challenges.

2.2.1 Challenge I: Defining Jewish Translation

The challenges inherent in defining what constitutes a translation in general are well-known, and we will not revisit them here.[34] The *JEWTACT* database treats as a translation any text that can be shown to have rendered a previous text (or texts) written in (primarily) Latin letters into Hebrew script, whether the work explicitly acknowledges its indebtedness to this previous work or obscures it. As noted above,

[32] The database does not offer analytical tools to work with translations. It contains a tag-cloud titled 'Translation'. Clicking on the tag, however, yields only 23 translations (out of 525 books catalogued by the database), the majority of which are, yet again, Bible translations. In fact, the database itself offers more information on a number of translations that the tag-cloud suggests, but these translations are discoverable only by browsing the individual entries.

[33] *Footprints: Jewish Books Through Time and Place*. Database: https://footprints.ctl.columbia.edu/about/. Accessed: 27 July 2022. See also Chesner et al. (2018).

[34] See Toury (1995/2012), Toepfer et al. (2021).

the database includes both wholesale and fragmentary translations, but it does not include works that cannot be shown to be based on previous *written* sources. This is to say that the phenomenon of oral transmission, which is an essential feature of early modern Jewish literature and culture, is beyond the scope of the database.

A more volatile question with which we were faced in conceptualizing the database, was that of defining a threshold for a translation's 'Jewishness', so to speak. The most systematic attempt to offer such a threshold to date is offered by the great Translation Studies scholar, Gideon Toury. In a programmatic essay on the phenomenon of Jewish translation over the ages, Toury suggests that:

> Translation which would justifiably be regarded as 'Jewish' could have been done into Hebrew (from whichever language); from a local language or Hebrew into a Jewish language; between two different Jewish languages; marginally even between two non-Jewish languages; namely, when the issue and/or the personalities involved had a marked Jewish character.[35]

Toury's criteria focus on three distinct dimensions of a translation; its language, its content, and its creators. Like similar attempts to define Jewish literature more broadly, however, none of these criteria seem able to adequately capture the complexity of the phenomenon of Jewish translation in its myriad spaces, periods, or expressions.[36]

Consider, for instance, the criterion of the Jewishness of the personalities involved. This criterion raises numerous questions, first and foremost among which is the thorny question—what or who is a Jew? This question is particularly poignant in the context of early modern translation, which was closely connected to the phenomenon of conversion. The question arises, should translations produced by converts from Judaism to Christianity be incorporated into the database? Should translations of converts from Christianity to Judaism be included? Does conversion make and unmake Jewish translation? What if the person involved in the translation produces translations both before *and* after the conversion? This was case, for instance, with the Yiddish printer Paul Helicz, who, between 1540 and 1552 produced two Yiddish translations—the first as a convert to Christianity, the second after his reconversion to Judaism.[37] And what about translations produced by Jews but printed by Christians? Or translations produced by Christians but printed by Jews? One could also question whether and to what degree an individual translator's choices were conditioned by their 'Jewishness' more than by other factors,

[35] Toury (2002, pp. x–xi).

[36] On the problems of defining Jewish literature, see Wirth-Nesher (1994, pp. 3–12).

[37] See Mellanie Plewa and Iris Idelson-Shein, *JEWTACT* entry #521; Idelson-Shein, *JEWTACT* entry #523. See also Balaban (1929/1930, pp. 7–9), Teter and Fram (2006).

such as class, education, nationality, or gender.[38] Thus, for instance, when the German-Jewish Henriette Herz translated the works of the Mungo Park (with Friedrich Schleiermacher) or Isaac Weld from English to German at the end of the eighteenth century, was she translating as a Jew, as a convert, as a German, or as a woman? To these questions, we would add that early modern translations—particularly into Yiddish—often appeared anonymously. While it stands to reason that many, perhaps most (but not necessarily all) Yiddish translations were produced by Jews (including converts to and from Judaism), it seems inadequate to ascribe so much importance to the identity of a translator, who was deemed so inconsequential by his contemporaries, that his[39] very name was omitted from the work.

Then there is the criterion of content—that is Toury's suggestion that a translation should be considered Jewish, even if it is not produced in a Jewish language, so long as it focuses on issues which bear a "marked Jewish character."[40] And yet, as Yiddish scholar Max Weinreich asks: "what is a particularly Jewish theme, unless we stick to portrayals of Jewish religious observances or community affairs?"[41] Indeed, it is doubtful whether early modern Jews would have conceded to the separation of Jewishness (or religion) and life implied by the notion of 'a Jewish theme'.

We are left, then, with the criterion of language. And yet, falling back on the question of 'Jewish language' is not as simple as it may appear at first glance. Some languages may function as Jewish in one space, time, or culture, but not in others. Consider for instance the role of Portuguese and Spanish in early modern Amsterdam or Livorno, or the fact that the cultures of Jewish literacy in central Europe and Italy changed considerably throughout the Early Modern Period, so that languages previously identified with Jews became largely inaccessible to most Jewish readers. Indeed, the question of what makes a language Jewish, is not necessarily more straightforward than the question of what makes a translation Jewish. An illustrative example of the difficulty is the decades-long debate surrounding the 1382 epic *Dukus Horant*. Part of a collection of Old Yiddish works discovered in the Ben Ezra synagogue in Cairo (the Cairo Geniza) in 1896, this incomplete and heavily deteriorating manuscript has elicited controversy among and between Yiddish and German scholars. The first scholarly edition of the epic and the collection more generally, published in 1957, presented the work as one of the oldest known literary documents of Yiddish literature. And yet, later scholars problematized this characterization, stressing the paucity of Hebraisms in the text. These scholars suggested that *Dukus Horant* should be viewed not as one of the earliest specimens of Yiddish

[38] For an analogous discussion in the context of gender, see Brown (2022, p. 149).

[39] We use the masculine pronoun here mindfully, so as to emphasize that to date, no translations by Jewish women have been discovered. See discussion below.

[40] A similar suggestion is made by James W. Marchand, who, in an attempt to distinguish between Yiddish and German works suggests that: "If [a] document treats a particularly Jewish theme it should […] be considered to be Yiddish", Marchand (1959, p. 386).

[41] Weinreich (1960, p. 101).

literature, but rather as a German epic in Hebrew characters. Throughout the ensuing decades there developed a widespread and often heated debate surrounding *Dukus Horant*'s Yiddish-ness, and—*mutatis mutandis*—its *Jewish-ness*. As Jerold Frakes and Gabriele L. Strauch have demonstrated, editions, translations, descriptions and analyses of *Dukus Horant* have become, over the years, a litmus test for one's scholarly and, indeed, ideological affinities.[42]

Rather than offer an ironclad definition of Jewish translation, the *JEWTACT* database posits the use of Hebrew script as a threshold for inclusion of a translation in the database, regardless of the religious identity of the translator, the putative 'Jewishness' of the theme, or of the language of the work.[43] Prioritizing script over language is inspired by the growing realization of the importance of script in the fields of world literature and literary history,[44] as well as by the realization that, notwithstanding the important changes in Jewish language proficiency and literacy, for most of the Early Modern Period script remained the main cultural border between Christians and Jews. The overwhelming majority of Christians would not have been able to read a work in Hebrew letters, while for many Jews, particularly in central and eastern Europe, Latin script remained largely incomprehensible.[45] Translating a text from Latin into Hebrew characters thus necessarily meant translating for Jews. While we are mindful of the fact that other forms of Jewish translation existed simultaneously, the *JEWTACT* database focuses exclusively on translation into Hebrew script. This means that the database includes translations in multiple genres, from a wide array of periods and spaces, and created by a diverse range of translators, whether Jewish-identifying (e.g., rabbis, physicians, quasi-secular authors) or not (e.g., missionaries, converts into Christianity, Christian Hebraists), so long as these translations are produced in Hebrew script.

2.2.2 *Challenge II: Discovering Jewish Translations*

A second major challenge with which the editors and contributors of the database were faced, was that of identifying the translations. As discussed above, research on early modern Jewish translation is scarce. The reasons for this are manifold; among other things, they have to do with versatility of the corpus. In contrast to other European corpora of translation (e.g., into English, German, French, Latin), translation into Jewish languages in the Early Modern Period was carried out by translators who were widely dispersed throughout the continent, and who drew on

[42] Frakes (1989), Strauch (1990).

[43] Compare the assessment of written Jewish expression in Hebrew script (e.g. Judeo-French, Judeo-Portuguese, etc.) and their role in defining Jewish languages in the *Handbook of Jewish Languages,* Rubin and Khan (2017, p. 3).

[44] For a paradigmatic discussion, see Damrosch (2007).

[45] See note 1 above as well as Bernuth (2016, p. 79).

different languages, traditions, and genres, which they imported into the four principle Jewish languages—Hebrew, Yiddish, Ladino, and Judeo-Italian. Attending to the history of this wildly multifaceted corpus necessitates a deeply interdisciplinary, polyglot, and collaborative approach. The discovery and analysis of the corpus of Jewish translations requires a familiarity with several disparate literary systems and genres, the mastery of a wide range of languages, and the combination of historical, literary, cultural and philological approaches, methods and techniques. Moreover, it requires the teaming-up of unexpected academic bedfellows. To be able to recreate the repertoire of Jewish translation, scholars of Jewish religious thought must converse with historians of science, specialists in Hebrew literature must enter into dialogue with Germanists, Yiddishists must converse with historians of the Renaissance, and Judeo-Italianists must work alongside scholars of Ladino, Hebrew, and Yiddish.

Put differently, the study of translation across the majority/minority divide requires developing expertise in both minority-specific contexts as well as so-called 'general history'. However, contemporary research is marred by the antiquated disciplinary borders which have been set up between 'Jewish' and 'non-Jewish' historiography. In many institutional settings, including in such major libraries and collections as the Bodleian Libraries in Oxford or the British Library in London, historians who wish to study European texts written in Hebrew script will find themselves allocated to designated reading rooms, often even on separate floors from their colleagues studying European collections in other languages. Scholars of the Jewish past are similarly often housed in distinct institutes and departmental centres, often physically removed from their colleagues working on the same periods and even spaces in non-Jewish contexts. These physical divisions have an adverse effect on the development of more holistic perspectives of the past.

But perhaps the most profound challenge to the study of Jewish translation in the Early Modern Period is posed by the norms of translation which characterized Jewish literature in this period. Unlike Jewish translators of the Middle Ages, early modern Jews did not often reveal their sources. A considerable number of translations (as of September 2022, 21% of all translations in the database, and 33% of works in various Jewish languages produced between 1550 and 1749) did not identify as such, while a large number of works that did generally indicate their reliance on non-Jewish works did not divulge further information on their sources (21% of all translations in the database and 29% of all translation produced between 1550 and 1749). In other words, almost half of the entries in the database constitute unacknowledged translations in whole or in part.

It would be anachronistic to reduce such translational norms to mere acts of plagiarism. Early modern ideals of originality differed vastly from our own, and literary creativity often engendered imitation and reproduction, both within the Jewish literary world and outside of it.[46] Nor should these works be viewed as forgeries, as few Jewish translators seem to have actively intended to deceive their readers by obfuscating their sources.[47] Of course, there are exceptions to the rule. The Italian preacher, teacher, and physician Abraham Yagel, for instance, who in 1595 published a Jewish catechism titled *Lekach Tov* ('Good Lesson'), concealed the fact that his work relied heavily on a Catholic catechism by the Dutch Jesuit Peter Canisius.[48] For centuries, Yagel's work circulated as a Jewish work for Jewish readers. The book was even translated back into Latin, as well as into German and English for Christian readers, who were accustomed to the catechistic genre.[49] As enthralling as this particular translation may be in its recasting of the imagined boundaries between Christianity and Judaism in the age of confessionalization, Yagel's active concealment of his source is not necessarily characteristic of early modern Jewish translational norms.

In fact, Jewish translators' attitudes to attribution were, from our contemporary perspective, largely inconsistent. In some cases, it seems that different genres called for the application of different translational norms. Take, for example, Prague-based Jewish astronomer and chronicler David Ganz. Ganz openly discussed his use of German chronicles in his own Hebrew chronicle *Tsemach David* ('The Branch of David', 1592), citing even the pages of the editions he used. At the same time, he did not disclose his reliance on a German astrology book in a different work, *Nechmad ve-na'im* ('Precious and Pleasant', c. 1592), dedicated to astronomy and geometry.[50] Other translators applied different norms to different sources, all within the confines of a single work. For instance, in his *Ma'aseh Tuvia* ('Tobias's Opus', 1708), the Metz-born Jewish physician Tobias Cohen duly cited some of his sources, some of the time, but omitted others or even the same source other times.[51]

The sheer variety of translational norms and scholarly practices that underpinned the process of translation suggests methods of information management whose rules are yet to be understood by modern historians.[52] The *JEWTACT* database aspires to set the foundation for the investigation of these diverse methods and norms not only

[46] Love (2002, pp. 40–43). On the similarities and differences between Jewish and non-Jewish norms of translation in early modern Europe, see Idelson-Shein (2021, pp. 77–81).

[47] On forms of concealment in Jewish translation, see Idelson-Shein (2024, pp. 90–105). On early modern forgeries, see Grafton (1990).

[48] Idelson-Shein, *JEWTACT* entry #62. For secondary literature on Yagel and his use of Canisius, see below.

[49] Oppenheimer (1864, pp. 19–20), Maybaum (1892), Faierstein (1999), Miletto (2009).

[50] Šedinová (1972); Yakov Z. Mayer, *JEWTACT* entry #50 and Jánošíková, *JEWTACT* entries #273–#280.

[51] Idelson-Shein (2022, pp. 257–264); Goren, JEWTACT entries #237–#238.

[52] On information management and the organization of knowledge in early modern rabbinic culture, see Morsel-Eisenberg (2021).

by offering a catalogue of translations from a wide range of genres, periods, and spaces, but also, by enabling users to search translations according to translational norms (whether acknowledged, unacknowledged, or partially acknowledged).

2.2.3 Further Challenges

Further challenges required the database's editorial team to come up with pragmatic answers to several complex questions. Our solutions were guided by the desire to create a user-friendly, universally accessible database. However, we are mindful that some of our choices required compromising more nuanced distinctions made by historians, linguists, and other scholars. Thus, for instance, early in the project we decided that the database would identify four major groups of Jewish languages—Hebrew, Yiddish, Ladino, and Judeo-Italian. We are aware of the fact that cataloguing early modern works written in Hebrew script into these four linguistic categories requires some pragmatism and may invite critique. Scholars of Jewish languages and philologists may justifiably argue that there are profound differences between Western and Eastern Yiddish, between Yiddish in general and German written in Hebrew characters or *Jüdisch-Deutsch*, between Judeo-Spanish and Ladino, between Hebrew and Hebrew-Aramaic, and so on. However, the database was designed to be accessible to the vast majority of users, who are not familiar with, nor concerned by these distinctions. The database does include a category of 'other languages' which allows us to identify the more specific linguistic features of each individual translation.

Another challenge facing the editors of the database was that of transliteration. Digital catalogues in the field of Jewish studies are often difficult to use because of the (often unvoiced) transliteration decisions made by cataloguers. Although an increasing number of institutions subscribe to the transliteration rules introduced in *Encyclopaedia Judaica* (for Hebrew) and Yivo (for Yiddish), catalogues and individual researchers often diverge from these rules to accommodate colloquial and more common uses of various names and terms. The *JEWTACT* database addresses the challenge of transliteration by incorporating common spelling variations of names in English and Hebrew along with other possible pronunciations. A search for 'יהודה ליב בן זאב', 'Yehuda ben Zeev,' 'Juda Lejb Ben Seeb,' and 'Y. L. Ben-Ze'ēv' thus generates the same result, namely the author 'Judah Leib Ben Ze'ev, 1764–1811.' The latter rendition of the author's name, accompanied by the relevant dates is based on the Israeli National Authority record, set by the National Library of Israel as well as major university catalogues in Israel. In addition, where available, the database incorporates a (searchable) reference to the Virtual International Authority File (VIAF) ID, which links together identical authorities known under different names and spelling variations. Finally, the AJAX search option, which, as noted above, displays results as the user types, also assists in overcoming the idiosyncrasies of Hebrew transliteration, allowing users to see the results of their search based on a partial or even just initial spelling.

In addition to name, title, and VIAF based searches (for both target, source, and mediating texts), the database also allows users to search for entries by language, date range, and genre, whether of the target text, the source text, or both (Fig. 2.2). Here again, some pragmatism was required. Few early modern authors would have identified their writings as belonging to the specific genres of history, philosophy, science, poetry, prose, or religious writings in accordance with our contemporary standards. The attribution of genres to texts in the *JEWTACT* database is thus meant to serve merely as a tool for limiting search results.

2.3 New Avenues of Research

The possibilities offered by the *JEWTACT* database are manifold. In (re)discovering the connection between non-Jewish source texts and their Jewish target texts the database recovers the connective tissue between the Jewish and non-Jewish libraries erased by contemporary archival, bibliographic, disciplinary, and institutional practices. It retraces the libraries of Jews and the circulation of texts to demonstrate the permeability of the borders between Latin and Hebrew script across early modern Europe.

For researchers of the Jewish past, the database amasses a critical number of individual translations to show that, contrary to previous assessments, translation played a major role in the shaping of early modern Jewish culture. In so doing, it poses a challenge to the scholarly tradition which has long upheld the belief that Jewish translation declined in early modern Europe, and that its putative re-emergence in the late eighteenth century marked the beginning of a new era in Jewish history, literature, and culture. The database offers the basic analytical tools to study this newly discovered phenomenon, and to situate it within a broader European framework. It prompts researchers to think about Jewish translation in broader terms, unencumbered by the disciplinary, linguistic, philological, institutional, and other hurdles often encountered by individual researchers. It furthermore facilitates a more comparative and interdisciplinary understanding of early modern Jewish history and a more holistic view of Jewish literature across time, space, genre, community, and languages.

Compiled in English, the database not only consolidates the field of early modern Jewish translation history, but also opens it to historians and researchers in adjacent fields. It offers a basis for the study of Jews as critical consumers, proliferators, and agents of early modern European culture, and allows researchers of European literature of the era to incorporate minority voices into their accounts. As discussed above, such inclusion may assist researchers in achieving a more multidimensional and nuanced view of the phenomenon of early modern translation, as well as, perhaps, of the complexities of intercultural dialogue across the majority-minority divide.

Drawing on current debates concerning the replication crisis in science, the *JEWTACT* database furthermore aims to promote accountability in contemporary

historiography, and the sharing of raw data to promote standards of transparency in the humanities. It furthermore stresses the importance of using collaborative, empirical, and data-based research to complicate received wisdom and historiographical truisms.

An example of such an assumption challenged by the database is the notion that openness to non-Jewish literature was a particular hallmark of early modern Yiddish, rather than Hebrew literature. As noted in passing above, while little research has been done on early modern Jewish translation into Hebrew, Ladino, and Judeo-Italian, the linguistic and thematic similarities between Yiddish and other vernacular literatures, particularly German, and the direct and indirect literary exchanges that enabled the emergence of Yiddish literature have been the objects of rigorous investigation.[53] That it is particularly *Yiddish* literature that is envisioned as a site of intercultural encounter is unsurprising. A language formed by the coming together of two distinct tongues–Hebrew and German–and relegated to a marginal position within the Jewish literary polysystem, already in the Early Modern Period, Yiddish was perceived as a vehicle for the importation of foreign texts and ideas.[54] The putative penetrability of Yiddish literature corresponds not only with its linguistic particularities, but also with its gendered dimensions. Indeed, for centuries Yiddish has been viewed in Jewish imagination as a feminine tongue, a literature produced for women, or, to quote an oft-reiterated adage, "for men who are like women".[55]

In contrast to Yiddish, in early modern Europe, Hebrew functioned as the *lingua franca* of religious learning, science and philosophy. A language accessible only to a narrow elite of learned Jewish men. Indeed, for centuries, Hebrew was viewed by Ashkenazi Jews as the 'masculine' counterpart to the feminine Yiddish.[56] Fittingly, Hebrew literature has been viewed in contemporary research as much less receptive to foreign influence.[57] Contrary to this view however, one of the major findings of the *JEWTACT* database has been that most Jewish translations produced in early modern Europe were in fact translations into Hebrew (as of September, 2022, 71% of all translations produced between 1450 and 1800, and 59% of all translations produced between 1500 and 1799).

The case of Jewish translation also offers a valuable counterpoint to the gendering of early modern European translation more generally. Translation into European vernaculars has often been viewed by historians as instrumental in establishing

[53] For some major studies, see Frakes (2017), Zfatman (1985), 2 vols, Paucker (1959, pp. 151–167), Shulman (1913, pp. 123–140, 164–171, 208–211).

[54] On polysystem theory and translation, see Even-Zohar (1979).

[55] The Yiddish phrase appears in Moses Altschuler's *Brantshpigl* (1596), Chap. 3. The phrase and its symbolic importance have been popularised by Weissler (1998, esp. p. 53). On cultural translation in the *Brantshpigl*, see work in progress by Roni Cohen.

[56] On the sexual politics of Hebrew and Yiddish in later periods, see Seidman (1997).

[57] For a recent example of this view, see Abramson (2002, p. 516).

feminine literary agency. Elite women viewed translation as an entryway into the world of classical scholarship, philosophy, and high ethical literature.[58] Historians have shown that translations not only catered to women, but were also produced by them.[59] While the reasons and meanings of the ubiquity of women translators in early modern western and central Europe have been debated, it is widely agreed that, as Hilary Brown has recently pointed out "in sixteenth- and seventeenth-century Europe […] more women became active as translators than at any previous time in history."[60] From a Jewish perspective, however, the *JEWTACT* database tells a different story. Out of more than 660 translations currently featured in the database, *none* were produced by, or even specifically *for* women. While the absence of Jewish women translators corresponds with the scarcity of early modern Jewish women authors more generally, it also pinpoints the power dynamics engendered in translating majority literature for a minority readership. Jewish translation was understood as a form of religious, literary, and cultural gatekeeping.[61] Translators were required to cherry-pick, expurgate, and amend texts in order to diffuse any threats which external knowledge and words were liable to pose to Jewish readers. Such an understanding of translation, coupled with Jewish women's virtual exclusion from the literary and religious Jewish elite, made Jewish men's monopoly over translation almost inevitable.

2.4 Coda

The advantages offered by digital databases, such as *RCCC*, *ORDA16*, or *HÜB* are profound. Such databases expand and challenge the horizons of current scholarship by amassing sources and research which transcend the capacities of individual researchers. The computational and analytical tools they offer and the data-driven evidence that they provide, have not only enhanced our understanding of the phenomenon of early modern translation, but have also helped to reveal the major gaps in its historiography. These and other databases encourage new avenues of research, as well as foster new forms of collaborative intellectual labour and scholarly accountability.

At the same time, however, digital humanities projects may at times reproduce some of the scholarly disparities and presuppositions which characterize more traditional historiographical approaches. At present, the major digital catalogues and databases of translation in early modern Europe overlook Jewish-language texts almost entirely, while the major digital bibliographies of the Jewish book overlook the profound role played by non-Jewish works in the creation of early

[58] Clarke (2009), Hosington and Fournier (2007).

[59] Esp. Belle (2012), Brown (2022).

[60] Brown (2022, p. 1).

[61] Idelson-Shein (2024, pp. 55–58, 80–88).

modern Jewish literature. The *JEWTACT* database aims to fill these lacunae and to contribute to the ongoing scholarly attempt to study translation across the diverse linguistic and epistemic communities of early modern Europe. Through close scholarly collaboration and by traversing the boundaries between institutions and disciplines, the database reimagines the textual archives available to Jewish readers and writers beyond the domain of Hebrew script. In so doing, we aim to 'translate' between the disciplines; to speak to both historians of European and Jewish literature, and to further establish the inseparability of the two fields.

We realize that the *JEWTACT* database is only the first step towards the incorporation of early modern Jewish literature in its pan-European, interreligious, and intercultural contexts. As a stand-alone DH project, the database cannot ascertain which translational norms, choices, and tastes were shared by Jewish and non-Jewish translators, and which were 'distinctively Jewish'. It likewise cannot identify regional or chronological similarities and differences between Jewish and non-Jewish translations. Such comparisons and analyses are inherently included in the greater vision of DH projects addressing translation. And yet we have not yet begun to build digital interfaces for the trans-cultural and multi-directional study of translation in Europe and beyond. Such a project presupposes a degree of equality or at least similarity between languages and cultures. But no informed standardisation of definition can take place without taking into account the phenomenon of translation in minority contexts. The specificity of early modern Jewish translation exemplifies the challenges which future projects may face in terms of including such minority cultures and reflecting the heterogeneity of early modern translation. In reflecting on these specificities here, we hope to offer scholars of European translation not only an initial view into the rich and versatile world of early modern Jewish translation, but also a platform for thinking about early modern translation and its digitization in broader and more diverse terms.

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Chapter 3
Versio latina and the *Catalogus Versionum Latinarum (CVlat)*

Julia Heideklang, Moana Toteff, and Anja Wolkenhauer

3.1 The Project Versio latina

The Versio latina project has four-year funding from the DFG (2021–2025) as part of the SPP 2130 Priority Programme 'Early Modern Translation Cultures (1450–1800)'.[1] The project examines translations of vernacular literature into Latin, which were printed[2] in the Early Modern Period (ca. 1480–1780). Hereby, the project follows a dual approach. On the one hand, the case studies conducted within the project focus on economically successful Latin translations that are marked by multiple printed editions or translation efforts, which most often go hand in hand with a broad geographical distribution and a large cultural impact. On the other hand, our catalogue, which will be the topic of the following pages, furthers a quantitative understanding of the overall phenomenon by collecting all

[1]Funded by the Deutsche Forschungsgemeinschaft (DFG, 'German Research Foundation'), Project-ID 461470108. The project's current announcements, publications and events are on the project website: https://uni-tuebingen.de/en/231683. Accessed: 4 January 2023.

[2]To focus on print allows us to argue from the standpoint of economic success via documented print editions and print distribution. While the inclusion of the manuscript tradition is surely a worthwhile complementary focus for future research, it would require more substantial funding over a longer period to investigate the more obscure traces and precarious conditions of manuscripts. Meanwhile, we want to establish a first solid foundation through the collection of printed translation to allow for clearer argumentation, particularly regarding geographical questions (see below) and cultural significance which future research then can build upon.

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printed translations that can be found or are documented in bibliographical sources. While Europe is our starting point, we aim for a global perspective in the long run.

Complementary to previous research, the project focuses on Latin as the target language instead of the source language, thereby centring the Neo-Latin translation. It aims (1) to establish the cultural functions and economic goals of the *Versio latina*, (2) to describe and theoretically reflect on the specifics of translation into Latin in the Early Modern Period, and (3) to increase awareness of the 'forgotten Latinity' of vernacular literature, which was of importance for the internationalisation of the early modern literary scene as well as for intercultural exchange.[3] In this project, we analyse the entire field of printed early modern Latin translations for the first time, aiming for a comprehensive catalogue to register translations into Latin globally and across all source languages. With this, we are developing digital resources to provide a foundation for future research.

3.2 Early Modern Translations into Latin

The precise extent of early modern translations into Latin is currently uncertain. The key years were probably between 1450–1750; most translations probably took place in central Europe; the maximal bounds correspond to those of the European designs of education coined by Greco-Roman antiquity. Earlier studies like Grant (1954) often mention translations without exact bibliographic data.[4] Burke (2007), in his groundbreaking study, mentions the number of 1140 translations, of which religious texts feature most frequently; but unfortunately, he does not add a bibliography.[5] Platzdasch records roughly 1000 Latin and Greek translations in an online repository, and includes texts published in anthologies as well as relevant secondary literature; however, the focus of his *Pantoia* resource is literature (mainly German) of the nineteenth and twentieth century.[6]

It is not always easy to extract data about translations from existing online catalogues and national bibliographies (*VD16*, *VD17*, *VD18*, *Gallica*, etc.), even though the situation has improved in recent years. For instance, the *Renaissance Cultural Crossroads Catalogue* (*RCCC*), compiled by Hosington et al., listing all translations published in England, Scotland, and Ireland before 1641, can be used as a best practice example. The database can be searched by language (e.g. in the categories 'Target Language' or 'Intermediary Language'), and a search for 'Latin' yields 217 translations into Latin on the British Isles before 1641, as well as 283 texts in which Latin serves as the intermediary language. However, even though individual entries often include information on source texts, translator(s), or intermediaries,

[3] See Wolkenhauer (2021).

[4] See Grant (1954).

[5] See Burke (2007).

[6] See Platzdasch: http://www.pantoia.de/. Accessed: 4 January 2023.

it is not possible to generate lists from these databases which would show only translations of early modern texts into Neo-Latin.[7] The *Universal Short Title Catalogue* (*USTC*), an ongoing project which currently provides information on books printed anywhere in the world between 1450 and 1650, has not yet introduced options to allow users to search specifically for translations.[8]

We can cautiously estimate that, using current online catalogues, we will be able to identify up to 4000 printed Latin translations of early modern texts.[9] However, there will be a strong geographic bias towards Britain, France, and the German-speaking lands. Searching for translations published in these countries is facilitated by the *RCCC*, *Gallica* (for France), and the *VD17*/*VD18* (for Germany); the French and German resources are more cumbersome than the *RCCC* but do at least allow the user to search for translations. We are not expecting to provide such comprehensive coverage of translations published in east and south-east Europe: data on these texts are still in the process of being made available online and are not easy for project members to access.[10] Similar issues arise with Latin translations of Asian, South American, and African texts, as long as they were not printed in central Europe. On this basis, statements based on quantitative data, such as attempts by Burke and by Barker and Hosington to label 'typical' source languages for translations into Latin, appear preemptive or at least show a geographical bias.[11] The vast amount of Latin literature and the expected translations warrant a separate catalogue focusing solely on this not yet fully appreciated direction of translation from the vernacular into Latin. This catalogue will certainly benefit from a close collaboration with current databases focusing on vernacular languages to hopefully achieve a substantial network of databases that facilitate a more differentiated look at the languages and literatures of the Early Modern Period.[12]

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[7] See Barker and Hosington (2013), database publicly accessible: https://www.dhi.ac.uk/rcc/. Accessed: 4 January 2023.

[8] Database publicly accessible: https://www.ustc.ac.uk. Accessed: 28 September 2020.

[9] The catalogues of *VD17* and *VD18* alone record 221 Latin translations from English, 315 from German, 682 from Italian, and 745 from French. The *Renaissance Cultural Crossroads Catalogue* offers 217 translations into Latin, *Gallica* even 569. This larger number refers broadly to all texts, fictional, factual, scientific, technical, poetry and prose; we will define our own current literary scope and its expected number of translations below.

[10] For example, there are three different library catalogues available in Russia. Equally, the search does not allow in general to look for translations, and more specifically for translation with Latin as their target language. But the Russian National Library in St. Petersburg, for instance, offers the possibility to specify the search request for books, published in Russia in the eighteenth century from languages other than Russian (Книги на западноевропейских иностранных языках, изданные в России в 1701–1800, 'Books in Western European Languages Edited in Russia in the Years 1701–1800'), and it is possible to search for languages involved.

[11] Barker and Hosington (2013, p. xviii), Burke (2007, pp. 69–71). Although the *RCCC* is quite comprehensive, its focus on British literature does not allow for a conclusive interpretation of general trends.

[12] Various scholars have commented on the need for more information about neo-Latin translation. See e.g. Briesemeister (1996, p. 59), and Toepfer et al. (2017, p. 1). For vernacular translation, see

3.3 A Catalogue as a Heuristic Instrument

The compilation of an online catalogue is a key output of the Versio latina project, given the current state of information available on translations into Latin in the Early Modern Period. Such a catalogue can provide robust data on this translation phenomenon and a sound basis for research. Therefore, alongside qualitative case studies, we will assemble the first comprehensive catalogue of early modern fictional literature, including texts positioned along the borders of non-fictional literature, in Latin translation to aid us in our work (*Catalogus Versionum Latinarum,* aka *CVlat*). The so-called *CVlat* tool is designed to be of use beyond the lifespan of the Versio latina project and to facilitate future work on Latin translation in the Early Modern Period. Currently, we are looking for suitable partners so that we can ensure that the resource meets modern bibliographical standards and will be sustainable in the long-term. In our current work on the project, there is a close relationship between the development of our methodology and the indexing of material (see Fig. 3.1).

As the image shows, the project is divided into four steps which are designed to follow on from each other chronologically but are closely interrelated and can thus be undertaken simultaneously to some extent (Fig. 3.1). Our data collection begins with the compilation of information about individual translations (**Step 1**), i.e. information on author, title in the source language, translator, title in the target language, place, publisher, year, library where book is held (and, if applicable, *VD16*-No., etc.). This information is collected in a simple Excel spreadsheet; after 17 months of work, the project is currently (i.e. in September 2023) recording roughly 600 titles. The latest spreadsheet version is available to download on the project's website to make the data accessible for research in the most direct and uncomplicated manner. Next, we ideally try to locate a digital copy of the translation (**Step 2**). We compile information on the digital copy (author, short title, year, library) and, where permitted by copyright law, download and save a copy. The digital copies will form part of our project's own digital library and will serve as backup copies, especially when derived from websites that are not affiliated to certified institutions. But we also include links to digital copies, or if not available, to digitized key pages, within the catalogue for easy access. At the same time, we seek to connect with other cataloguing projects, both in the context of the SPP 2130 and beyond (**Step 3**).[13] We envisage that collaboration with other project teams will

e.g. Fromm (1950–1953), Worstbrock (1976); see also the subsequent DFG project of Klaus Kipf et al. (*ORDA16*: https://www.orda16.gwi.uni-muenchen.de/); Hausmann (1992). Kroll (1964) documents the heterogeneity of the approaches to register vernacular (specifically German) literature and, for the most part, the exclusion of early modern Latin translations from these registration efforts. Strikingly, Briesemeister (1985, p. 205) refers to a significant number of literary translations from French into Latin, whose functions and aims require more research.

[13]For instance, we are collaborating with the Institute of Classical Philology and the Ludwig Boltzmann Institute for Neo-Latin Studies (LBI) at the University of Innsbruck and as well as with Heidelberg University. In Innsbruck, Martin Korenjak has led on the development of the *noscemus* database which is part of the ERC-funded 'Nova Scientia: Early Modern Scientific

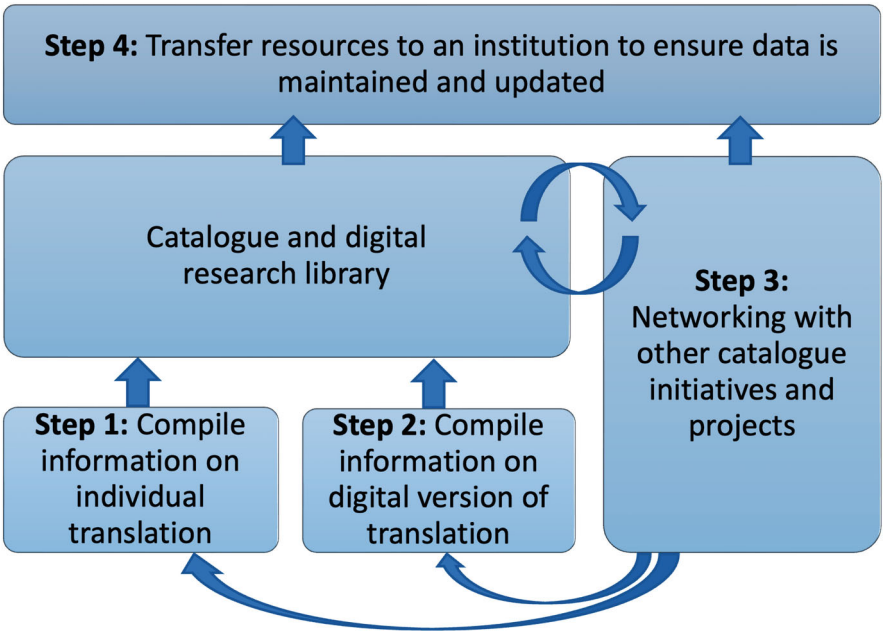

Fig. 3.1 Overview of the project, showing the four steps which will lead to the development of a sustainable catalogue

enable us all to create better and more accurate data. Already, we have received numerous suggestions from colleagues which have been useful as we build the catalogue; help from others has been particularly valuable in areas which are still under-researched such as translations into Latin in eastern Europe.[14] Dialogue with other project teams is giving us insight into the available software options and allows us to benefit from the expertise these teams have built up over many years. In the long term, we aim to transfer the catalogue to a suitable institutional setting in order to ensure that the database will be maintained, updated, and expanded (**Step 4**).

We expect to be able to achieve Steps 1 and 2 by the end of the funding phase with the help of research assistants. At this point, the database should contain c. 1500–2000 titles in the narrower field of belles-lettres; we have kept the scope of our content consciously broad and include travel literature and biographies as well

Literature and Latin' project. The database was created with the aid of Wikiwand software and at the end of 2022 comprised c. 1000 scientific works in neo-Latin, which can be filtered by translation, see https://wiki.uibk.ac.at/noscemus/Main_Page. Accessed: 7 June 2023. The DFG-funded *Heidelberger Übersetzungsbibliographie*, led by Vahram Atayan, currently merges numerous existing translation bibliographies, and the database's infrastructure is accessible and usable for other projects. The database is publicly accessible under: https://hueb.iued.uni-heidelberg.de/de/. Accessed: 7 June 2023.

[14] The *USTC*, for instance, at least incorporates North-East Europe.

as fiction and poetry. We expect that most of these titles will include a digital copy. At a later point, we intend to expand the database to include translations of scholarly, technical, and religious texts in subsequent projects.

As the catalogue grows, we will seek to connect with other database projects and include links to these resources on the project website (as part of Step 3). These resources include among others the *Renaissance Cultural Crossroads Catalogue* (*RCCC*), developed by Brenda M. Hosington et al., and the *noscemus* database developed by Martin Korenjak in Innsbruck.[15] We can only move forward to create a sustainable database once we have amassed a significant number of translations. Only then can we decide in which areas we can interconnect with other databases. Therefore, Step 3 and Step 4, though conceptualized already, will necessarily be part of the project's continuation; the same applies to expanding the project's remit to encompass other fields of translation into Latin in the catalogue.

At the moment, we obtain the data through:

a) evaluating relevant research literature, specific to our area of interest[16]
b) systematically searching digital resources such as national bibliographies and larger catalogues[17]
c) information shared with us by colleagues, at present mainly within the network of the SPP 2130, i.e. at the Priority Programme's workshops and conferences.[18] Our long-term goal is to establish an international and interdisciplinary network, which will enable bibliographical discoveries by individuals to be captured in the catalogue, even if these discoveries go beyond the current remit of the project.[19]

[15] Database publicly accessible: https://wiki.uibk.ac.at/noscemus/. Accessed: 7 June 2023.

[16] See e.g. Ijsewijn and Sacré (1998), Burke (2007). While Verbeke (2015) and the anthology by Deneire (2014) address early modern multilingualism as a general phenomenon, Hosington (2014) stresses the fundamental importance of interlingual and intercultural translation with Latin as a target language. Korenjak (2016) dedicates an extensive chapter to translations into Latin, whereby he uses Binns's (1990) thesis that „lateinische Versionen volkssprachlicher Werke in der Regel öfter und länger nachgedruckt [wurden] als die Originale", Korenjak (2016, p. 146), Binns (1990, pp. 252, 260) (Transl.: 'Latin versions of vernacular works are usually re-printed more often and over a longer period of time than the originals'). The Priority Programme 2130 'Early Modern Translation Cultures, 1450–1800' uses these approaches and emphasizes the fact that Latin in the Early Modern Period was not merely of importance to academic communication but also as a point of intercultural connection, see Toepfer et al. (2021, pp. 41–42). Scholars have only occasionally considered the cultural and linguistic implications of this function of Latin, see e.g. Barker and Hosington (2013, pp. xx–xxiv, 11, 187).

[17] We search specifically for translations where possible or by entering terms which might be used in the titles to describe a translated work (e.g. wildcard searching with the terms 'in latinum versus', 'latine redditus' or 'latinitate donatus').

[18] Current projects and activities are on the SPP's website: https://www.spp2130.de/. Accessed: 7 June 2023.

[19] An example for such a long-term exchange is the connection with the Leverhulme Trust-funded project by Sara Miglietti, titled 'Writing Bilingually 1465–1700: Self-Translated Books in Italy and France' (2023–2026).

We were able to collect roughly 600 titles in the first 17 months of the project (i.e., up to September 2023). The practical work involved in this presented a number of challenges, which will be briefly outlined here:

1) **Definition of translation:** Translations are not always marked as such, and not everything that is called a translation can be evaluated as one, according to our definitions. At the moment, we are keeping an open mind about what constitutes a translation and will refine our definition of translation at a later point.
2) **Current challenges of the field:** There is very little work in this field to date for the project to build on; we, therefore, have only a rough idea of how many printed works we will be examining in total. Since national literatures of smaller countries have received considerably less attention and in-depth research, systematic mistakes due to missing pieces of information or misinterpretations are to be expected. Systematic mistakes are to be expected in treating smaller national literatures, determining the nature of the translation, and identifying pseudonyms. Currently, research in this field is not based on robust data; our knowledge of early modern Latin translation is biased toward countries where relevant bibliographical work has already been done (Britain, France, German-speaking lands). In the long term, we hope that this situation will improve thanks to our database and the research network we are establishing.
3) **The problem of cataloguing 'at second-hand':** There are no relevant printed bibliographies which could form the basis of our database. We also do not work with books themselves but extract our data from library catalogues and other databases, such as the above-mentioned *RCCC* and *USTC*, as far as they allow a search for translations; any mistakes in these resources will find their way into our catalogue too. Providing a link to a digital copy and storing a backup copy goes some way to alleviating this issue.
4) **Context and corpus:** In order to evaluate the agents, networks, and contexts of translation, an analysis of the author's and translator's total corpus would be useful. Such analyses, however, require proportional personal, temporal, and financial resources to document and analyse each large corpus in depth to supplement the selected translations into Latin that are part of such large corpora with a deeper understanding of the author's or translator's complete work. It is only in individual cases that we do have well-developed corpora, such as, for example, Sebastian Brant's *Narrenschiff* (1494)/*stultifera navis* (1497)/*Navis stultifera* (1505).[20]
5) **Latin is a homeless language:** Secondary literature on individual Latin translations is neither listed systematically, let alone comprehensively under the target

[20]The DFG project 'Narragonia Latina', led by Thomas Baier and Joachim Hamm (Würzburg), aims for a bilingual hybrid edition with translations and commentaries of Latin translations of Jacob Locher (1497) and Jodocius Badius (1505) as influential inspirations for the European reception of the *Narrenschiff*, https://www.narragonia-latina.de/projekt/. Accessed: 14 November 2023. For the significance of Locher's Latin translation as an intermediary version for subsequent translations into vernacular languages, see Hartl (2001, pp. 28–34).

language Latin, neither in publications nor catalogues, because to date bibliographical work and research on early modern translation has tended to focus on translation into vernacular languages. Translations into Latin were printed all across Europe but have received little scholarly attention, and so far, have not been regarded as part of national literatures.

6) **The geographical bias:** Based on current information, we can assume that translation into Latin was a global phenomenon in the Early Modern Period, but that central Europe was a key site of this translation activity due to the role of Latin in the European education system. However, we also hypothesise that Latin, as an international language, was used in Europe to translate works from 'small' or 'exotic' languages. We will only be able to prove whether this hypothesis applies to all areas of book production in the same measure with the aid of future research. At present, we do not have the means to extend the project systematically beyond Europe; this is due to our own language competences and the differences in how each region catalogued early modern book production, and the bias is already very much present in our cataloguing work. Beyond the general expansion of our research network, we could aim specifically to include researchers who specialize in eastern European Latin literature, in order to achieve wider and more balanced coverage in our database.

3.4 Looking Ahead: Digital Tools and New Perspectives on International Literature

How could the project be further developed in future as a digital humanities project? We can envisage analysing the data in the catalogue with social networking tools such as Palladio or Gephi in order to map power relationships and changes in the networks of the Early Modern Period more clearly. In this process, the data will be used in a suitable, so occasionally abstracted, form, since the multi-layered networks of early modern translation and print projects necessarily lead to so-called 'two-mode' or 'multi-mode' networks. Research of this kind is currently made difficult by the fact that the standard networking tools were not developed for this kind of literary or bibliographical (semantic) analysis.[21]

The current project is just the beginning of our research work; the *CVlat* catalogue is designed as a heuristic instrument and should provide a robust foundation for our work. The catalogue is helping us obtain an initial overview of the field; it helps us

[21] However, recent studies show how those open digital tools can be successfully applied to network analysis, focusing on actors and agents of early modern translation processes; see, for example, the pilot study based on the *RCCC* and *CCC* by Belle and Guénette (2022). Using both Palladio and Gephi, they explore the fruitful combination of quantitative and qualitative analysis. In a second or third step, it would be intriguing to follow a comparative approach, allowing for synergic effects of research corpora focusing on vernacular traditions and ours with Latin as the target language at the centre.

develop and support our hypotheses; it illuminates gaps in current research and allows us to develop appropriate criteria for future research and cataloguing projects. In this respect, the project is similar to research endeavours in the past, which sought to open up new perspectives on literary history (by focusing e.g. on women's literature or indigenous literatures) and, at the same time, it draws on current approaches in Comparative Literature. As an important component of further research, our catalogue aims to comprehensively document early modern Latin translation in its international and supranational contexts. With this effort, an important part of early modern printed translations and literature will finally become more visible and better accessible.

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Chapter 4
How Can We Digitally Investigate Reflections on Translation in the Paratexts of Sixteenth-Century Editions and Translations of Ancient Drama? The *IThAC* Project. Inventing Ancient Theater in Sixteenth-Century Scholarly Paratexts: Analysis, Translation, and Digital Exploration

Malika Bastin-Hammou

4.1 Introducing the *IThAC* Project

The *IThAC* project aims to study the reception of ancient drama in Europe during the sixteenth century through the analysis of the printed scholarly paratexts dedicated to it, and to make available to the research community a translation of this corpus into French, thanks to the construction of an evolving digital interface.[1] By 'scholarly paratexts of the sixteenth century', we mean liminary texts: dedicatory epistles, addresses to the reader, prefaces, lives, and theoretical treatises written by humanists in the sixteenth century to introduce the texts and sometimes the translations of the seven ancient dramatists Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, Terence and Seneca. The paratexts studied extend from the period between 1476, the date of the first printed edition of Terence with a paratext, to the very beginning of the seventeenth century. We have collected as many printed editions of Aeschylus, Sophocles, Euripides, Aristophanes and Seneca as possible; for Plautus and Terence, a selection of the most significant ones has been made. Among these 140 editions of these seven Greek and Latin dramatists, there are 53 editions including translations

I would like to thank here very warmly the reviewers, whose work has been so useful to me.

[1] The website is mostly in French and Latin. See https://ithac.elan-numerique.fr/. Accessed: 10 May 2023.

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of Greek plays, made by male humanist scholars as famous as Erasmus, Melanchthon, Buchanan, Camerarius, and Scaliger; but some less famous and sometimes almost unknown translators have also come to the light and their reflections on translation often shed a new light on early modern translation theory and practice.

4.1.1 Hypothesis

Our main hypothesis was that the collection, translation, and analysis of this corpus of scholarly paratexts, which has long been neglected because the printed texts were not widely available and because the paratexts were largely written in Latin, could allow us to grasp not only how ancient theater was received and understood by its 'inventors' in sixteenth-century Europe but also how the ideas and methods formulated in and conveyed by the paratexts, at a time when both modern theater and philology were being invented, circulated and developed thanks to their wide dissemination made possible by print. These paratexts, often written by important scholars, circulated more widely and reached a much larger audience than texts written in the vernacular, because Latin was then the language of scholarly communication: neglecting them is to omit a major stage of intellectual debates on theater, philology, translation and the transmission and reception of antiquity. The *IThAC* project allowed us to reconstruct these debates by showing the role of well-known figures and by bringing to light lesser figures—professors, translators, printers, booksellers—who also played a key role in the development and circulation of these ideas. Because this is a huge corpus, we developed digital tools to analyse where, when, by whom and how these ideas were shaped and study how they circulated.

Indeed, this corpus has not been thoroughly studied yet. The fact that the paratextual material is mostly written in Latin, sometimes in Greek, and few researchers who are interested in sixteenth-century drama today possess knowledge of both these languages, has also probably been an obstacle to its analysis. A further obstacle is related to disciplinary fields: specialists in ancient theater usually do not focus on this period of transmission of ancient dramatic texts, preferring either the study of their manuscript transmission or their contemporary reception; as for specialists in sixteenth-century drama, they give priority to the study of vernacular or neo-Latin drama rather than to the scholarly texts accompanying editions of ancient plays. Besides, the few specialists in ancient dramatists who are interested in the reception of these texts in the sixteenth century usually focus their work on one dramatist, and rarely relate it to what is said about other dramatists or link Greek and Latin poets.

Thus, first and foremost, the *IThAC* project has made widely available a corpus of work which is essential to the understanding of the history of ancient theater and Western theater since the Renaissance. The *IThAC* team, comprising specialists from the different fields mentioned above, has translated the paratexts into French and these texts have been disseminated via a digital interface (currently all in French).

But the *IThAC* team has not only located, transcribed and translated these paratexts; we were also able to connect and explore them using digital tools. This is a major innovation, since this is an important collection of texts, which are rarely studied and even more rarely interconnected. The result is that we now have a better understanding of the concepts, figures, networks, and key locations which played a part in the invention of ancient theater. Moreover, the tools for digital analysis developed within the *IThAC* project can be reused and serve other large-scale projects analysing corpuses of early printed texts. Indeed, beyond the micro-analysis of the texts in the corpus, it is distant reading, as understood by Franco Moretti, that we sought to promote in the analysis of early printed texts, as it can open up radically new perspectives. In our specific case, 'distant reading' meant gathering the seven ancient dramatists, that is the editions of Latin as well as Greek, tragic as well as comic poets, and exploring the discourse elaborated upon them as a whole, at the dawn of modern drama and modern philology, as it allowed to reconsider both the understanding of these authors and the role it played in the invention of modern drama.[2]

We brought together a multidisciplinary and multi-competent team, namely specialists in Greek and Latin dramatists, specialists in Neo-Latin theater and vernacular theaters of the sixteenth century and seventeenth century, and specialists in the editing and digital exploration of pre-modern texts. Only this gathering of skills was indeed able to deal with such a corpus and to achieve not only the description, localization, and availability of this very large translated corpus, but also its analysis as a whole. Indeed, the digital tools which were developed to analyse these paratexts enabled the team to advance research in a number of ways: we were able to connect the texts in the corpus and identify the key concepts in the critical discourse; we were able to show when these concepts emerged; we were able to chart the number of editions by author, language, and country; and we were able to map places of publication, humanist networks, and the circulation of ideas. Among others, translation emerged as one of the key concepts discussed in the paratexts.

4.1.2 A Lack of Previous Work in this Area

This corpus has not yet been the subject of a systematic study. However, a similar DH project has been carried out on a related corpus through the ANR project *Les Idées du Théâtre* (*IdT*) on the paratexts of vernacular plays in early modern Europe, which revealed the importance of these texts in the development of modern dramatic theories.[3] Another partly similar work, involving the systematic translation into French of Renaissance poetic theories written in Neo-Latin, was carried out by Virginie Leroux, Émilie Séris, and a team of translators; their edition was published

[2] See Moretti (2005). On distant reading and drama, see also Galleron (2017).

[3] See idt.huma-num.fr. Accessed: 10 May 2023. See also Vuillermoz and Blondet (2021).

in book-form in 2018.[4] However, while the edition contained translations of Renaissance literary theory written in Latin, it only marginally studied scholarly paratexts, and only a few of the theoretical texts concerned drama. As for previous scholarship on the reception of ancient theater in the Renaissance, most studies have focused on individual authors. Monique Mund-Döpchie has compiled and commented on the editions and translations of Aeschylus in the Renaissance and Elia Borza on those of Sophocles in Italy; Patrick Hadley has explored the reading of Aristophanes by the German scholar Frischlin through the Latin paratexts of his translations of the comic poet.[5] Nevertheless, these works, each devoted to one dramatist, while valuable, needed to be supplemented and systematized in terms of the collection and translation of paratexts, and to be linked.

Finally, there were some digital tools that were specifically developed for the digital processing of pre-modern data related to the reception of ancient theater: *Hyperdonat*, led by Christian Nicolas,[6] and *L'Aristophane de Lobineau*, led by Malika Bastin-Hammou, with the collaboration of Anne Garcia Fernandez, Elisabeth Greslou, and Arnaud Bey.[7] But the *IThAC* project aimed to do more than just digitally edit a translated corpus; it set out specifically to develop digital tools for exploring such a corpus.[8]

4.2 Methodology and Data Processing

The work was conducted by a team of tenured researchers and IT experts, as well as a postdoctoral researcher, doctoral students, and interns, whose names and roles are mentioned in the TEI file metadata and can be consulted on the project website.

4.2.1 Identification, Digitization, and Corpus Provision

Each file of each paratext, after digitization, was named according to an identical protocol: the abbreviated author's name, the date of the paratext, the author of the paratext in its Latin version, and the paratext number among the author's paratexts in the relevant edition. For instance, 'Ar1589_Christianus_p2' refers to the second paratext written by Florent Chrestien in the 1589 edition of Aristophanes.

These files were deposited in a dedicated 'Source' folder on the UGA Cloud, which contains seven folders, one for each ancient dramatist.

[4] See Leroux and Séris (2018).

[5] See Mund-Döpchie (1984), Borza (2007), Hadley (2015).

[6] See Bureau et al. (2023). http://hyperdonat.tge-adonis.fr/. Accessed: 7 April 2023.

[7] See Bastin-Hammou et al. (2023). http://lobineau.elan-numerique.fr/. Accessed: 7 April 2023.

[8] See https://ithac.hypotheses.org/le-projet. Accessed: 7 April 2023.

4.2.2 Transcription and Translation

These paratexts were then transcribed and translated during weekly seminars over the course of three years. Word format was chosen because the researchers responsible for the transcription and translation of the corpus were most familiar with it. A standard form was established, identical for all, named with the paratext identifier; it contains: (0) the names of contributors, (1) metadata of the paratext (title, author, addressee, colophon, place, date, language), (2) source metadata (copy, text from the title page, ancient author, place of publication, date, printer, publisher, translator, text type), (3) bibliographic references, (4) remarks, (5) if applicable, a link to a freely available digital edition, (6) a data entry table with four columns, the first indicating sentence numbers, the sentence being the basic unit, the second Latin text, the third its translation, and the fourth remarks.

These Word files were deposited in a dedicated 'Transcriptions & Translations' folder on the UGA Cloud, which contains seven folders, one for each of the ancient authors of the corpus.

4.2.3 XML-TEI Encoding

These data were then encoded in XML-TEI using Oxygen software. An encoding manual was developed and deposited on the Cloud, conforming to the TEI consortium guidelines. The transfer from Word files to TEI files was done mainly manually. However, a program was created to automate the generation of tables containing text and translation identifiers. Closed dropdown menus were created for names and semantic tagging. A fixed list of ten semantic tags was created: philology, translation, metre, paratextual rhetoric, pedagogy, religion, theater, history of the book and printing, argument, life.

All TEI files were deposited in a dedicated 'TEI' Cloud folder and are open access and 'harvestable' on the website.

4.2.4 Visualisation

Data visualisations have been designed, allowing for the visualisation of the chronological distribution of concepts addressed, the evolution of the number of editions by author, by language, by country, the mapping of places of publication, the revealing of humanist networks and the highlighting of collaborative relationships, shared concepts, and common domains, and the emergence of key concepts in critical discourse.

Those visualisations were developed in two stages: first on a site conceived as a digital lab to help the members of the team explore the entire corpus and available to

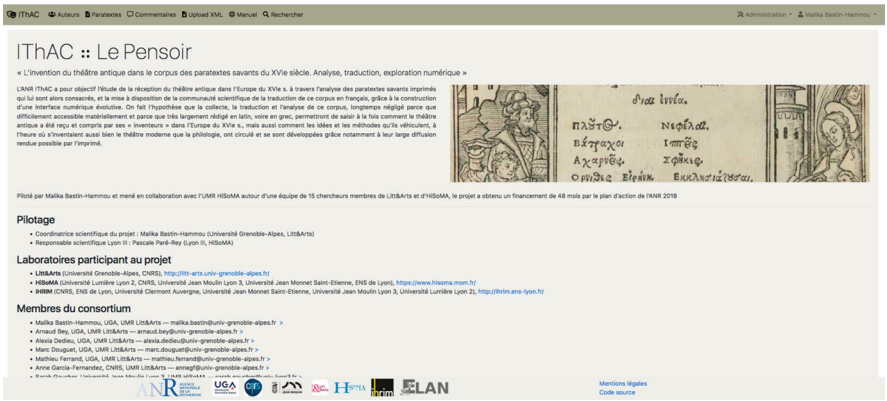

Fig. 4.1 The *Pensoir* homepage

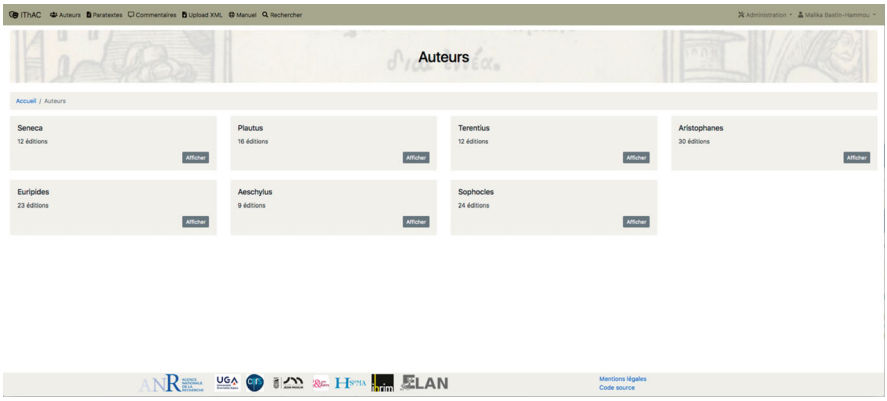

Fig. 4.2 Overview page for the seven ancient dramatists

the public following registration, then on a public site accessible without registration.

This digital lab, named *Pensoir* (Φροντιστήριον, after Aristophanes' *Clouds*) was conceived to allow the members of the consortium first to visualise the entirety of the transcribed texts and their translations and to explore them automatically (see Fig. 4.1).

As the *IThAC* project aims to study the reception of ancient authors, the digital lab is designed to give easy access to data about editions and translations of each of the seven dramatists (see Fig. 4.2).

There is a page dedicated to each author which lists the relevant editions/translations in chronological order; clicking on a date will take the user to a list of the paratexts of the editions printed that year (see Fig. 4.3). If an edition contains work by more than one author, it appears on each author's list.

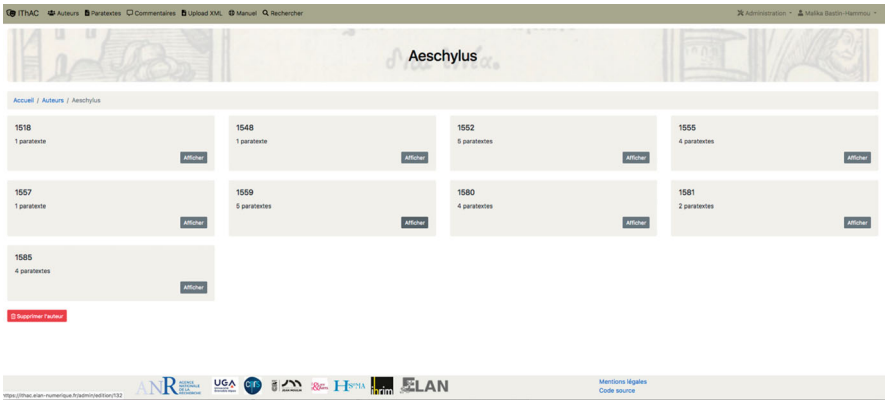

Fig. 4.3 Chronological list of editions/translations of Aeschylus

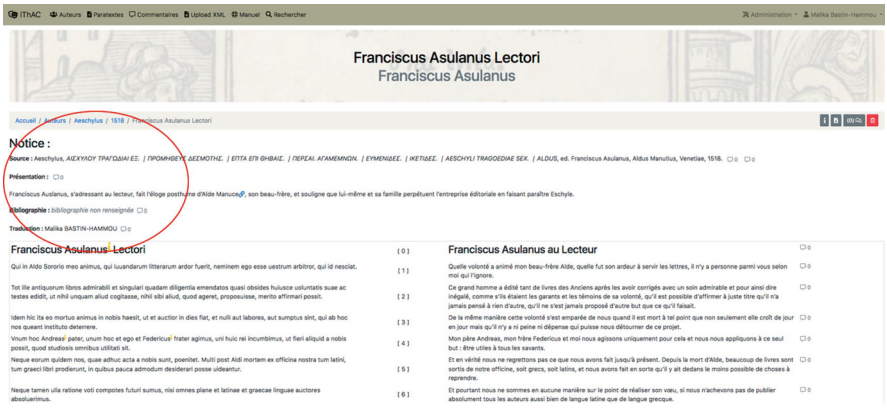

Fig. 4.4 Display of the paratexts and their respective metadata

Each paratext is then presented in two parallel columns, with the original text (in Latin and sometimes in Greek) on the left and our translation (into French) on the right. Metadata such as the title of the edition, bibliographical information about the paratext, an abstract of the paratext and the name of its translator precede each entry (see Fig. 4.4).

The digital interface includes a 'comment' function that allows users to add annotations, which can be replied to and which can be deleted once the discussion is finished. This feature has proven incredibly useful for cross-examination and proofreading of the corpus, but also, more generally, for sharing ideas (see Fig. 4.5).

A menu allows users to see the number of characters in the paratext, to download the TEI file, to view all the comments and to delete the page (see Fig. 4.6).

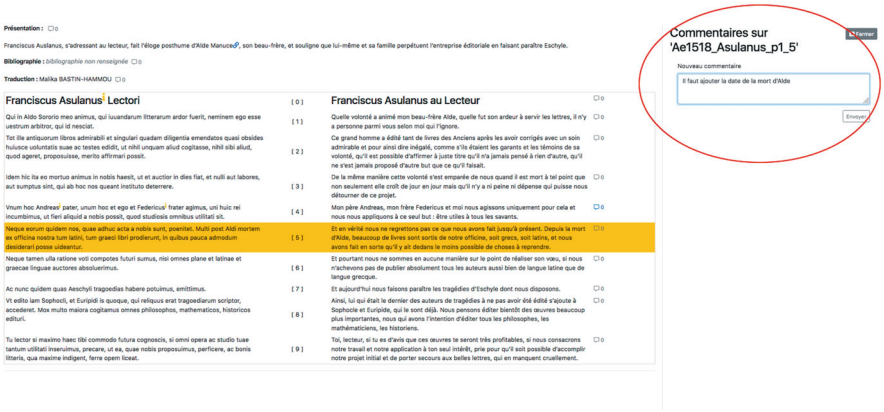

Fig. 4.5 Using the comment function

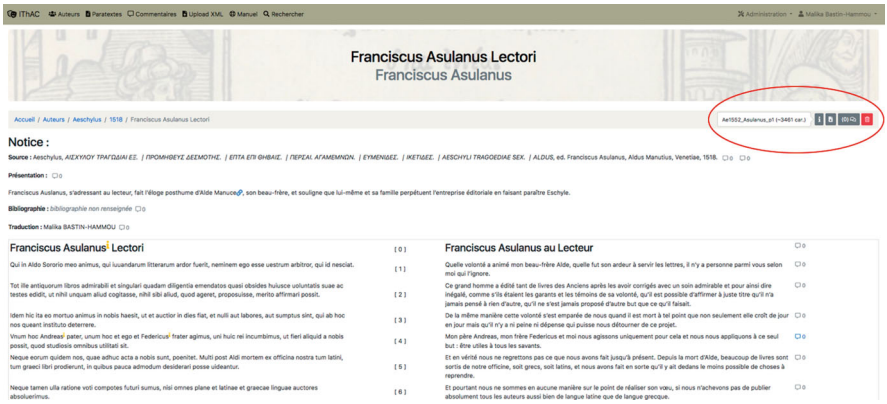

Fig. 4.6 The menu on the paratext pages

4.2.5 Exploration and Data-Mining

The *Pensoir* also allows two advanced types of exploration: full-text search and XPath queries (see Fig. 4.7).

In addition to the *Pensoir* digital lab, there are three other visualization and exploration tools.

First, a *Dynamic map* allows visualization of the evolution of paratext production for each ancient dramatist in sixteenth-century Europe.

At the bottom, a cursor allows users to select a given period—e.g. 1510–1520—and to see, over this period, to which dramatists paratexts are dedicated, and where (see Fig. 4.8). This allows the reader to see the evolution, through time and space, of the interest for each dramatist, compared to the others.

Fig. 4.7 Search by full-text search and XPath queries

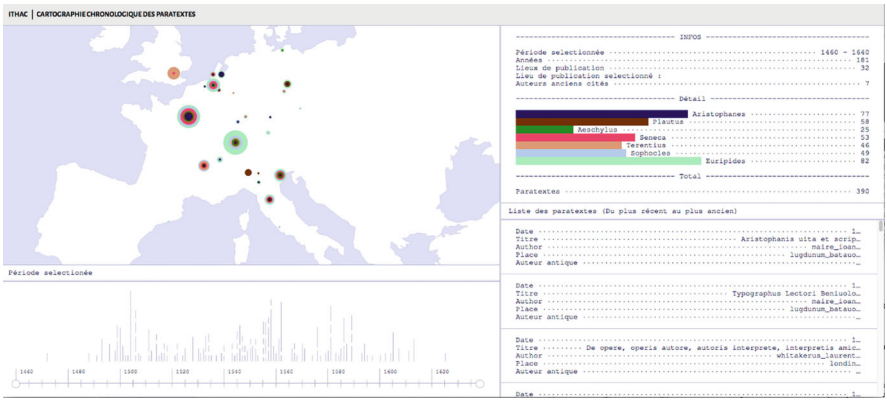

Fig. 4.8 Visualisation of paratext production from 1460 to 1640 on the Dynamic map

Secondly, the *XML-Explorer* tool allows for exploration of paratexts by adding various criteria such as language, place of publication, printer, editor, translator, and semantic analysis such as reflections on philology, translation, metre, paratext rhetoric, pedagogy, religion, theater, history of the book and printing, argument and life.

Each of these categories can then be cross-referenced with another category, the latter ('filters') offering a list to choose from.

For example, the category 'author' can be crossed with the category 'place of publication' with the filter 'Basel': this gives ten results, listed by author in the middle column: two paratexts by Aeschylus, one by Euripides and seven by Sophocles. In the right-hand column, one can then read the date and title of the paratexts concerned, by author (see Fig. 4.9).

By clicking on these titles, the entire transcribed and translated paratext with its metadata is displayed (see Fig. 4.10).

Thus, the user gets numbers but also direct access to the relevant paratexts.

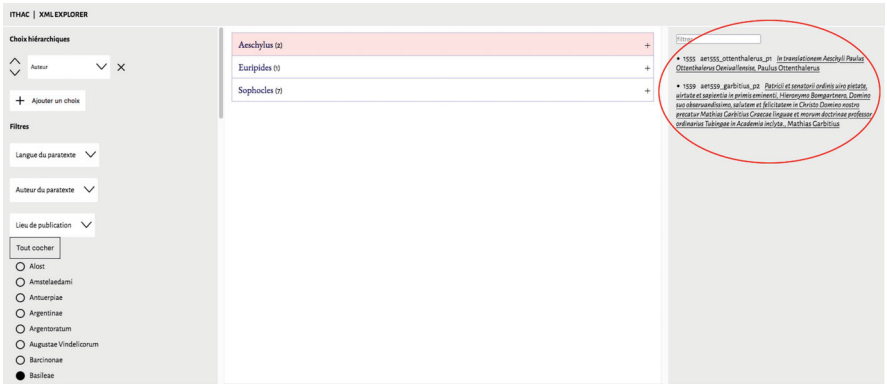

Fig. 4.9 Searching for paratexts by cross-referencing categories in the XML-Explorer tool

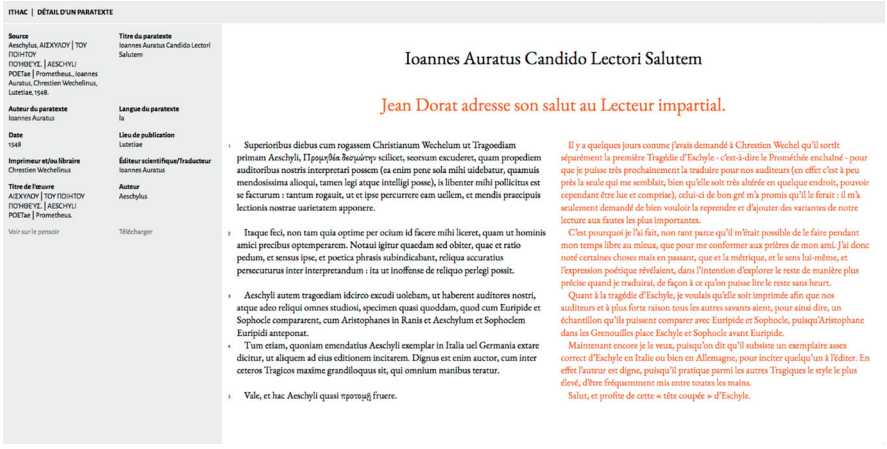

Fig. 4.10 Display of the paratexts found via the XML-Explorer tool

4.2.6 Data Management and Open Access

A data management plan (DMP) was written at the beginning of the project and has been updated regularly, using the Opidor platform.[9]

The FAIR (Findable, Accessible, Interoperable, Re-usable) principles guided the processing of the data. The data were stored on the UGA Cloud and in a GitLab. The TEI files are freely available via the visualisation interfaces (see above Fig. 4.6). As the encoding was done according to TEI guidelines, the data are interoperable and reusable. At each stage, tutorials have been written for users and developers; they are freely available on the website, as is the source code of the website. The talks and

[9] See https://dmp.opidor.fr/. Accessed: 7 April 2023.

papers resulting from the digital explorations are stored on HAL, the inter-institutional open access repository led by the French CNRS.[10]

One of the questions that arose was whether the results of our work should be made available in printed format as well as digitally. What are the specificities of each, how can they be complementary and how can we avoid duplication?

It seemed to us that the digital edition was the place for data exploration and a printed edition for synthesis. Thus, the printed edition will take the form of an anthology whose thematic chapters will be preceded by an abstract written by a specialist, while each printed paratext will be preceded by an introduction developed and oriented according to the chapter in which it is printed. A system of cross-references will allow researchers to connect the digital and print editions. As regards sustainability, the data will be stored on RechercheData.Gouv collection UGA, Nakala or Zenodo when the project ends.

4.3 Analyzing the Metadiscourse on Translation in the *IThAC* Paratexts Using a Digital Tool

Now what can these tools bring to the research on and understanding of early modern translations? And what are the limits of this corpus of paratexts and this tool to achieve these aims?

First of all, Renaissance paratexts are biased, as many studies have shown.[11] In scholarly paratexts, one can find some reflections on the texts they come with, but also a lot of self-fashioning: editors, translators construct their *persona* and praise the author they choose to edit. One has to bear in mind that this leads editors and translators to exaggerations. Secondly, exploring these paratexts digitally could lead researchers to take into account only the occurrences of words like 'translate', 'translation' or 'translators' in Latin; but there are many different Latin words that can refer to the process of translation and akin concepts, and authors of paratexts do not systematically use such words, and often use metaphors to evoke the work of the translator. Besides, one also has to be careful not to read the occurrences of those words out of their contexts. This is why we decided not only to use the research tool for occurrences of specific words ('full-text search'), but to read the whole corpus and tag it when we thought the paratexts were dealing with the question of translation, whether the vocabulary of translation appeared or not. The tag 'T' has been used to circumscribe the reflection on translation, which is quite often addressed by the humanists dealing with ancient drama. This tag can include a single word as well as paragraphs or a whole paratext. Then, we were able to use the XML-Explorer tool with the 'translation' criteria or Xpath queries in Oxygen.

[10] See https://hal.science/. Accessed: 7 April 2023.

[11] On paratexts in general, see the seminal Genette (1987) and on Renaissance paratexts, Blair (2021).

All those methods have been used but the most complete in terms of results is the Xpath queries, with Oxygen software or directly on the *Pensoir* digital lab. The query /TEI/text/body/ab[matches(@ana,'#T\b','!')] has been used.[12] It gave 190 results. These were then studied one by one with their context and I shall now give an overview of these results; a complete analysis will be published in our printed anthology.

First of all, it appears clearly that reflections on translation are not distributed uniformly across the whole corpus of the 478 paratexts. Unsurprisingly, they are to be found mainly in the 291 paratexts to editions and translations of Greek drama. While there are 190 reflections on translation in the whole corpus, only six are to be found in three paratexts to Latin drama, when defining Roman comedy as a translation of Greek comedy. Besides, most of the paratextual material relating to translation can be found in the 53 editions of Greek drama which contain a Latin translation.

One exception is Aldus Manutius's paratext to the *editio princeps* of Aristophanes (1498), in which the famous printer harshly criticizes translations, alleging they cannot be trusted:

> Quae omnia quam deprauate et corrupte, quam mutilate et perperam, ut taceam etiam quam barbare et inepte Latinis scripta sint, qui uel mediocriter eruditus ignorat?[13]
>
> Anyone with even a little knowledge is aware of how all these texts have degenerated and been corrupted and mutilated, how they have been faultily, not to say barbarously and incompetently, rendered into Latin.[14]

But most of the time, translations of Greek drama are praised and presented as useful by the translators and even more by their friends, and what they discuss concerns the choice of the author or the text translated, the methods and the aims of the translations. In keeping with the conventions of the time, the paratexts advertise the translations and the translators, defining at the same time what is a good translation, and a good translator.

4.3.1 Why Translate? And What? Justifying the Act of Translating

Thus, translators of Aristophanes' *Plutus*, the most often translated comedy in sixteenth-century Europe, usually explain that it is the least obscene of his comedies and the only one that can be used in the classroom. In a similar way, *Prometheus* is

[12] The end of the query (@ana,'#T\b','!') allowed us to exclude the tag #TH, which had been used to tag the reflections on theater.

[13] Manutius (1498, n.p.). All translations, unless otherwise stated, are mine and based on the *IThAC* translations.

[14] Transl. Wilson (2016, p. 71).

said to be the only Aeschylean tragedy that can be understood by and useful to modern readers, as Dorat puts it:

> Ea enim pene sola mihi uidebatur, quamuis mendosissima alioqui, tamen legi atque intelligi posse.[15]
>
> Indeed, it is about the only one which seemed to me, although it is very altered in some places, to be readable and understandable.

On the other hand, some translators justify their decision to translate a certain play by arguing that it has never been translated before or has been poorly translated and needs to be translated again.

These justifications are conventional statements in paratextual material, similar to the convention of the translator presenting himself as a modest scholar who has been urged by friends to publish a work which he would otherwise not have deemed worthy of publication. Thus, Naogeorgus on his translation of Sophocles:

> Domine generose atque patrone colendissime, superiore aestate contenderunt a me docti quidam et ad humanitatis studia promouenda propensi uiri ut, quemadmodum ante triennium Sophoclis Aiacem ac Philoctetam in Latinum carminibus conuertissem, ita reliquas etiam illius poetae tragoedias, quotquot extarent, conuerterem.[16]
>
> Generous lord and honourable patron, last summer scholars and men inclined to promote the study of humanities urged me to translate, as I had done in Latin three years ago for Ajax and Philoctetes of Sophocles, the rest of the surviving tragedies of this poet.

But most of the time the translators argue that they want to be useful to those who do not read the Greek and to those who are learning it:

> Gratum id non tantum in Graecarum literarum studiosis fore, uerum iis etiam, quibus Graeca non admodum sunt cognita et expedita, magnam allaturum utilitatem.[17]
>
> This, they said, would be not only agreeable to those who study Greek letters but also very useful to those who do not know nor master Greek enough.

In this context, translating ancient Greek drama is presented as a useful and pleasant training before turning to more serious texts. In his preface to his 1506 translation of Euripides' *Hecuba* and *Iphigeneia*, Erasmus explains that before translating the Scripture, he trained himself with Greek tragedies, in order to avoid insulting and injuring the holy texts with an awkward translation:

> Cum animo statuissem Praesul amplissime uertendis graecis authoribus rem theologicam, deum immortalem quam indigne sophisticis nugis deprauatam pro virili mea vel restituere vel adiuuare, ne statim iuxta Graecorum adagionem ἐν τῷ πίθῳ τὴν κεραμείαν periclitari uiderer; et ad tantum munus illotis (ut aiunt) pedibus irrumpere: uisum est mihi prius periculum facere quam non lusissem operam in utriusque linguae studium insumptam idque in re difficillima quidem illa, sed tamen prophana. Quo pariter et negocii difficultas ad meditationem conduceret, et si quid esset peccatum, citra sacrarum scripturarum iniuriam solius ingenii periculo peccaretur.[18]

[15] Auratus (1548, n.p.).

[16] Naogeorgus (1558, n.p.)

[17] Naogeorgus (1558, n.p.)

[18] Erasmus (1506, n.p.).

> Since I had decided, most noble master, to translate the Greek authors in order to repair or improve, as far as I could, the immortal theology, unworthily damaged by the nonsense of sophists, so as not to give the impression at once of risking, as the Greek proverb says, 'putting the cart before the horse', or, as they say, rushing into a work of this magnitude with dirty feet, I thought it advisable to test my application to the study of the two languages, and this by means of this very difficult but nevertheless profane work, so that the difficulty of the undertaking would enable me to exercise myself in the same way, and that, if any mistakes were made, they would engage my intelligence, but would not be an insult to Holy Scripture.

4.3.2 Inventing the Translation: Reflections on How to Translate Greek Drama

The methodology of translating is also often addressed by the translators. Some discuss the source text(s) they have used for their translation (i.e. the different editions and manuscripts), but the main topic is the opposition between *ad verbum* and *ad sensum* translations. Those who say that they are translating *ad verbum* claim to be also respectful of the beauty of the Greek text while the *ad sensum* translators claim to be also faithful to the text.[19] Some, such as Charles Girard in the preface to his translation of Aristophanes' *Plutus*, explain their decision not to make a choice, and give two translations of the whole play, one *ad verbum* and one *ad sensum*.[20]

Another aspect of the methodology of translation addressed by the humanists in the corpus is the will to compete with the original text by correcting its faults, and to compete with other translators, ancient or modern. Some short laudatory poems celebrating the translator, written by friends, then compare the translator to the ancient dramatist translated, wondering which one is the best writer, as Melissus comparing Florent Chrestien to Aeschylus:

> Papae! cothurno nixus Attico, nouus
> Aemulator Aeschyli
> Sic fortioris compotem tragoediae
> Examussim originem
> Expressit, o Morelle, pergraui sono
> Romulique uersibus;
> Vt si quis inter se ambo contulerit, palam
> Iure iuret optimo,
> Ceu Christiani haec uerterit de schematis
> Aemulator Aeschylus.
> Quis hoc uel illo loquitur accuratius,
> Aut tonat potentius?
> Dubium est, in utro Genius insit fortior,
> Spiritusue grandior.
> Vigere in hoc Florente Gallia abneget

[19] See Divus (1539) vs. Erasmus (1507).

[20] See Girardus (1549).

> Atticissimum Aeschylum?[21]
>
> Ah! leaning on the Attic cothurn, this new imitator of Aeschylus truly expresses the origin of a more powerful tragedy, o Morellus, with a grave sound and the verses of Romulus, so that, if someone had compared them with each other, he would proclaim of the best right: it is as if Aeschylus, imitator of Chrestien, had translated these pages. Who speaks more carefully than either of them or who thunders more powerfully? One does not know in which of the two the genius is stronger or the breath greater. Would Gaul deny that the so Attic Aeschylus finds his strength in this Florent?

One major problem for the translators of Greek drama is the Greek verse, especially the verse used in the lyric parts sung by the chorus. All translators, following the lead of Erasmus, comment on the difficulty and the obscurity of the Greek chorus.[22] If some translate Greek drama in verse, some also choose to translate it in prose, such as Andreas Divus. But those who translate in verse, trying very hard to respect the Greek text, usually acknowledge that it is too hard a task, and justify the liberties they take with the source text by the fact that Erasmus himself and even ancient poets and translators were not always perfectly respectful of the rules of Greek prosody, as Chilius does:

> Porro quod ad metri rationem pertinet, auctorem sum imitatus, mihique aliquoties permisi, quod is sibi saepissime, nempe in senariorium paris numeri locis anapaestum; quod et Erasmus in huius aliquot uertendis uersibus factitauit.[23]
>
> Regarding the metre, I imitated my author and allowed myself from time to time, as he very often does, an anapest at the even feet of the senarium; even Erasmus did this in the few verses he translated.

Finally, one constant feature shared by the translators of Greek drama is the choice to translate it by using the codes of Latin drama: Greek tragedians should be translated in Latin in the manner of Seneca while Aristophanes should be translated in the manner of Plautus or Terence, as Frischlin states:

> Quantum uero ad meam attinet interpretationem, dedi hanc ego operam ut e Plauto et Terentio, omnem fere afferrem Latinitatem, quacum permutarem Graecum poetae huius semonem, idque exemplo ipsiusmet Terentii, qui integras Comoedias Graecas fecit Latinas et fecit suas, mutuatus eas e Graecis, ut Heautontimorumenon a Diphilo, Eunuchum a Menandro, Phormionem ab Apollodoro.[24]
>
> Regarding my translation, I have tried to bring in almost all the Latinity of Plautus and Terence in exchange for the Greek of our poet, following the example of Terence himself, who transposed complete Greek comedies into Latin and made them his own, borrowing them from the Greeks, such as the Heautontimoroumenos by Diphilus, the Eunuch by Menander, and Phormion by Apollodore.

[21] Melissus (1585, n.p.).

[22] See Dedieu (2023).

[23] Chilius (1533, n.p.).

[24] Frischlinus (1586, n.p.).

4.3.3 *Inventing the Translator: Portraits of Translators and the Construction of an Ethos*

Finally, these paratexts, by exhibiting the work of the translators of Greek drama, often deal with the construction of the status of the translators. Short poems present them as wearing the *toga*, or as twins of the Greek poet translated: Frischlin thus becomes at the same time Aristophanes, Plautus and Terence. But the translator is also presented as a figure who dares to address a modern audience and who participates in contemporary debates, such as Florent Chrestien translating Aristophanes' *Peace* in the context of the wars of religion.[25] His qualities are listed: he must be, of course, *utraque lingua doctus* ('know both languages'—that is Latin and Greek), but also have the knowledge necessary to understand the text he translates. Some become modern authorities, such as Erasmus and his translations of Euripides for tragedy, and later Buchanan, while some become the model not-to-be-followed by translators, as Andreas Divus for Aristophanes: while translators of Greek tragedies quote Erasmus as a model, translators of Greek comedy, from the end of the sixteenth up to the eighteenth century, quote Divus to mock his translation of Aristophanes. Eager to construct their credibility and define their specific status, these self-fashioning translators regularly confront their work to close but different figures. The printers are evoked most of the time to be criticized as greedy and eager to publish without considering the quality of what they publish. On the contrary, translators do not draw a clear distinction between editors and translators, presenting their work as part of the editing process. Sometimes indeed the translators also edit the text they translate—as Chrestien did—but some only give a Latin version without the Greek text, such as Chilius. This claim is not unfounded: though translators have long been considered as less important than editors, historically, they have often improved the edition of the text they translate, as the examples of Girard or Divus have shown.[26]

Finally, translators are also presented—and present themselves—as poets who create a new play. Indeed, some of them were poets: both Florent Chrestien and Nicodemus Frischlin wrote so-called 'original' plays and poems. But even the translators who have not written plays or poems like to consider that translating *is* writing poetry, and that it is sometimes even harder.[27]

[25] See Christianus (1589).

[26] See Beta (2015); Bastin-Hammou (2018).

[27] See Venatorius (1531).

4.4 Conclusion

This chapter has shown how digital tools can give us a much broader view of a research question. We can build a large corpus—in this case the paratexts of sixteenth-century editions and translations of ancient Greek and Latin drama—and employ tagging, meaning that we can consider more material than if we look at just a few editions or the reception of one specific dramatist. We are able to analyse material on a much larger scale and draw broader conclusions, encompassing different authors and genres, and over a longer period of time. We have seen that some issues regarding translation recur across the corpus and in the work of different translators translating a range of ancient dramatists. Finally, this annotated corpus and these tools could benefit other questions and help understand better the reception of Ancient Drama, the genre of paratext and all the questions they address, regarding especially the history of philology, paratexts, pedagogy and of course modern drama.[28]

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[28] See Bastin-Hammou and Paré (Forthcoming).

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Chapter 5
Online-Repertorium Deutsche Antikenübersetzung 1501–1620/Online Repertory of German Translations of Classical Antiquity 1501–1620

Bernd Bastert, Florian Fleischmann, and Johannes Klaus Kipf

5.1 Current State of Research

German literature and culture in the Early Modern Period—as elsewhere in Europe—was strongly influenced by translation.[1] Of particular importance are vernacular translations of ancient works. In contrast to the British Isles,+[2] however, we still do not have comprehensive data for the German-speaking world on the extent of translation activity and the people involved in it. Nevertheless, we have a somewhat more precise overview of translation activity in the sub-field of classical antiquity.[3] For in 1976 Franz Josef Worstbrock published the first catalogue of

[1] Cf. Noe and Roloff (2014, 2020), Andersen and Lafond-Kettlitz (2015).

[2] Cf. Barker and Hosington (2016) and the online *Renaissance Cultural Crossroads Catalogue*: https://www.dhi.ac.uk/rcc/. Accessed: 15 November 2021.

[3] On their significance between medieval and early modern poetics see Worstbrock (1970, 2004), Toepfer (2005), Hamm (2017), Wesche (2017), Toepfer et al. (2021).

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German translations of ancient texts for the period from 1450 to 1550.[4] However, this research tool, which is still much used today, is no longer up-to-date and is in need of revision in various respects. In particular, Worstbrock's *Verzeichnis* does not include works of Christian antiquity.[5] Worstbrock's *Verzeichnis* was supplemented in part by work carried out a few years ago on an online database called *Marburger Repertorium zur Übersetzungsliteratur im deutschen Frühhumanismus* ('Marburg Repertory of Translation Literature in Early German Humanism'; *MRFH*). This database lists translations of ancient texts as well as translations of works by Italian humanists.[6] However, coverage is limited to the period 1450–1500 in a more convenient and contemporary way.[7] Moreover, this resource also has some gaps. Among other things, works and their translations that were not considered humanistic are missing. Furthermore, German-language translations of authors of Christian late antiquity were not included in this enterprise either. There have been no recent attempts to compile data for the period after 1550, even though some ancient texts were not translated into German until after 1550 and others were subject to important revisions or re-translations.[8] The *Online-Repertorium Deutsche Antikenübersetzung 1501–1620* ('Online Repertory of German Translations of Classical Antiquity'; *ORDA16*) will provide researchers with a valuable new resource.

The project, which is distributed between two sites, Munich and Bochum, has been funded by the Deutsche Forschungsgemeinschaft (DFG) since 2019. The aim of the project is to create a repertory that for the first time records all texts (in print and manuscripts) produced between 1501 and 1620 that contain translations into German of Latin and Greek works of antiquity and late antiquity (up to around 600 AD). In this way, we will obtain comprehensive quantitative data about the translation of ancient texts in the German-speaking world in the age of humanism and the Reformation, a phenomenon which is so important for understanding the development of translation in the Early Modern Period. For the translations of works of Christian late antiquity, the repertory even offers the first overview ever for the period covered.

[4] Worstbrock (1976).

[5] Cf. Worstbrock (1976, p. 4).

[6] https://www.mrfh.de/. Accessed: 24 January 2024.

[7] Cf. Bertelsmeier-Kierst (2014, 2017).

[8] For an initial overview in this field, one still has to rely on bibliographies of the eighteenth and nineteenth centuries, especially Degen (1794–1801) and Schweiger (1830–1834), which of course cannot claim to be complete: their entries contain only basic information and they exclude manuscripts.

5.2 Data Sources

Our main sources for the data are the two online national bibliographies of printed works for the periods 1501–1600 and 1601–1700 respectively: the *Verzeichnis der im deutschen Sprachraum erschienenen Drucke des 16. Jahrhunderts* ('Register of Printed Works of the Sixteenth Century Published in German-Speaking Countries'; *VD16*)[9] and, for the first two decades of the seventeenth century, the *Verzeichnis der im deutschen Sprachraum erschienenen Drucke des 17. Jahrhunderts* ('Register of Printed Works of the Seventeenth Century Published in German-Speaking Countries'; *VD17*).[10] The *VD16*, our quantitatively most important data source, currently includes about 106,000 titles with ownership records from more than 330 libraries worldwide and links to c.68,000 digitized copies. Nevertheless, it is not complete, because some printed works are not listed or are listed with incorrect information. Our *ORDA16* project is more up-to-date and accurate for the corpus we are dealing with and therefore offers scholars the possibility of analyzing translation activity in this field in detail for the first time. The most important source for manuscripts is the *Handschriftencensus* (an online database of German-language manuscripts from the medieval period), which, however, only lists manuscripts up to 1520.[11] The manuscripts form the smaller part of our database. Currently, twenty-nine manuscripts are listed in the *ORDA16*, compared to 836 printed works representing 851 different translations of 606 Latin or Greek works dating before 600 AD.

In *ORDA16*, all documents (manuscripts and prints) are searchable. In addition, the database provides detailed descriptions of the contents or structure of these often complex printed works and manuscripts; short biographies and lists of research literature on the translators who can be identified by name provide access to their scholarly research. Thus, the database offers researchers a set of empirical data which is broad, easily accessible and easily searchable and can form the basis for a wide range of research on a period which is central to early modern translation history.

The following data can be searched:

- authors (of the Greek and Latin sources)
- works (short titles)
- translators
- complete title (page)
- place of publication
- printer and/or publisher
- date of publication

[9] https://www.bsb-muenchen.de/sammlungen/historische-drucke/recherche/vd-16/. Accessed: 27 October 2022.

[10] https://kxp.k10plus.de/DB=1.28/. Accessed: 27 October 2022.

[11] https://handschriftencensus.de/. Accessed: 15 October 2022.

– coverage of the document
– persons contributing (authors of dedicatory letters, poems etc.)

The following criteria apply for inclusion as a text witness of a translation of an ancient work into German:[12]

– The text witness identifies itself as a translation of an ancient work by naming an ancient author, work title in the title, incipit, colophon or elsewhere.

OR

– The text witness is identified by existing bibliographies as a translation of an ancient work.

OR

– The text witness is identified by the project leaders and editors as a translation of an ancient work.

AND

– The text witness provides a translation into a variant of the German language.

By applying fairly broad criteria we try to cover all the texts that were conceived of as translations in the period under consideration and in scholarly literature. We avoid defining translation thematically[13] by applying external criteria. By this we hope to work with a flexible and historically adequate concept of translation. Our working criteria differ from those of Worstbrock who included only works originating effectively in classical antiquity, excluding pseudonymously preserved works.[14]

The aim is to record all German-language translations of classical antiquity, whether handwritten or printed. For texts in print, the respective edition is the text witness. If links to digitized copies exist, these are also accessible through the *ORDA16* database.

Unlike the *VD16* or *VD17*, *ORDA16* provides detailed tables of contents for both printed works and manuscripts. This is important for two reasons. First of all, the printed works often contain more than one translation. For example, Matthias Ringmann's first translation of Caesar's works[15] contains translations not only of Caesar's most famous works, the *Commentarii de bello Gallico* and the *Commentarii de bello civili,* but also of several works falsely attributed to Caesar (*Bellum Alexandrinum*, *Bellum Africanum*, *Bellum Hispaniense*) as well as translations of Plutarch's *Vita Caesaris*, Lucian's twelth *Dialogus mortuorum* (a fictitious

[12] These criteria are inspired directly by the *Renaissance Cultural Crossroads Catalogue*: https://www.dhi.ac.uk/rcc/. Accessed: 15 November 2021.

[13] Cf. Stolze (2018) for an overview over the most important definitions and theories of translation.

[14] Cf. Worstbrock (1976, p. 5): "Das Verzeichnis nennt nur solche Werke, die das Prädikat antik zu Recht tragen."

[15] Cf. *ORDA16* D41; https://www.orda16.gwi.uni-muenchen.de/suche/?did=41. Accessed: 24 January 2024.

dialogue between Alexander, Hannibal, Scipio, and Minos about the greatest commander of history, written originally in Greek and translated by Ringmann following the Latin version by Giovanni Aurispa) and an excerpt of Vergil's *Georgics* (1.463–1.488). All these translations are relevant to our corpus and can be found through searches for short title and (original) author. Secondly, the paratexts to the translations—prefaces, dedicatory letters or poems, commentaries and other explanatory texts (such as glossaries)—often contain important information about the translators' understanding of their sources and of their own agency as translators. Through the table of contents all paratexts can be found easily in the originals and digitizations.

In a second project phase, beginning in autumn 2022, the database will be further expanded and optimized. An important goal for this phase is the transcription of all paratexts from the first editions of the translations recorded in the database.[16] Because translators often provide information about their work and give an account of it, these paratexts are important sources for the history of translation theory and the history of the semantics of translation. Once the project as a whole has been completed, we will have a complete record of the terminology used to describe translations in one of the most important sub-areas of translation within German literature of the Early Modern Period (e.g. *vertieren, tranßferieren, tütschen, verteutschen, ins Teutsch bringen*). Given the size of our corpus, and in the interests of efficiency, we use the automatic text recognition tool OCR4all for the transcriptions from printed sources.[17]

Another important goal for the second phase of the project is to focus on the period 1450–1500 in order systematically to close the gaps we have identified here. This applies specifically to the German translations of texts of Christian (late) antiquity which are not included in Worstbrock's *Verzeichnis* and which are also not to be found in the *Marburger Repertorium zur Übersetzungsliteratur im deutschen Frühhumanismus*.

5.3 Technical Implementation

A wide range of different technologies is available to realize a web project. The choice of which to implement depends on both external and internal factors. External factors are those that do not arise from the specific project structure, but are rooted in general considerations. It is in the nature of the technical development in the field of digital publications and the internet that technological realizations become obsolete much more quickly than in the case of printed publications. Nevertheless, the

[16] These include, on the one hand, (dedicatory) letters, prefaces, introductory poems and explanations of the originals, and on the other hand, supplementary information such as commentaries, indexes and indices.

[17] Cf. Reul et al. (2019) for an introduction into the software.

longevity and sustainability of the resource created is a primary goal.[18] For this reason, it is advisable to rely on proven technologies that have ideally already been in use for a comparatively long time.[19] Furthermore, these technologies should be widely in use, so that one can justifiably assume that they will continue to be developed and supported beyond the next few years due to the large number of users. Moreover, there is a need to maintain the project resources beyond the project period (i.e. when the funding for dedicated IT support has stopped) and to install updates if this proves necessary.[20] This does not include further development or adaptation of the web resources, only the maintenance of basic operations, e.g. reliable hosting on a web server to ensure accessibility and the adaptation to current security standards. Due to the short-term nature of the project funding, this is only feasible if it can be ensured with as little effort as possible.

At least as important are internal factors, which result from the specific goals and requirements of the project. For *ORDA16*, this includes the provision of a search mask that is used to search through information collected by the project members on the project goals outlined earlier. These data include various conceptually distinct objects and their more detailed descriptions. Translations, printed works, manuscripts, persons, places, and academic literature must be recorded and each described in more detail. Furthermore, these objects are not independent of each other, but on the contrary closely interconnected. These interconnections are complex in nature, meaning that it must be possible to create so-called n-to-m links. To give an example: a printed work can be linked to a whole series of persons. These persons in turn are not only linked to this one printed work, but to many other printed works as well. In addition, there are further geographical and bibliographical links of both printed works and persons, e.g. place of birth and death or place of publication. Overall, this results in a tightly meshed network that must be adequately mapped.

A relational database achieves the mapping of this type of network.[21] It forms the backend of the project and serves as a storage location for the collected data. Relational databases are basically collections of tables. These tables each contain a single category of objects (e.g. printed works) and columns describing them in more detail (e.g. title, year of publication and other details). Each printed work corresponds to one row in this table. Similarly, tables are created for the other object types like persons and so on. The entries of a table can be linked to one or more entries of other tables, which allows the aforementioned networks to be mapped. For *ORDA16* we use an SQL database. SQL is the standard for relational databases. Both

[18] Cf. Luecke (2022a) on long-term archiving.

[19] Cf. e.g. Beaulieu (2020, p. ix), for the history of SQL dating back to the 1970s or Tatroe and MacIntyre (2020, p. 2), for an overview of the development of PHP over the last three decades.

[20] Cf. Krefeld and Lücke (2019) for the necessary institutional background to securing long-term support for web projects.

[21] Cf. Beaulieu (2020), Chap. 17 for the widespread use of relational databases in the foreseeable future with the exception of Big Data (which is clearly not the case for *ORDA16*).

in general and in the in-house use of the LMU Center for Digital Humanities,[22] where the project is hosted, SQL databases have proven in years of experience to be easy to handle and future-proof.[23] For *ORDA16*, MySQL is used and the databases are managed via the administration tool phpMyAdmin. The latter allows access to the database and its contents via a regular web browser. It is equipped with a graphical interface that allows users without SQL knowledge to perform simple manipulations to the database. This includes creating new table entries, deleting unnecessary table entries and correcting any errors in an existing entry. Thus it is also possible for non-technical project staff to make additions and corrections to the database. So far, this choice has proven to work well in the context of the project. It avoids lengthy communication among project team members which might otherwise be necessary to correct even the smallest errors and enables team members to work independently with immediately visible results. The original planning and setup of the database structure is still a task for an IT employee, as are more complicated adjustments or the mass import of data from other sources.

As of January 2023, this results in a database for *ORDA16* with 41 tables and a total of just over 35,000 entries. Recorded are 836 print titles, 999 persons, 32 manuscripts, 4725 paratexts and 851 different translations, which were attributed to 210 distinct translators. Finally, nearly 13,000 links spin a finely woven network connecting the aforementioned entities.

The information stored in the database has to be displayed and made searchable for the end user. This is done on the frontend, i.e. through a website. The website should be easily maintainable and able to be adjusted to technical changes or new security issues if and when they arise. In many cases, it is therefore not advisable to create a new website from scratch, but to build on an existing framework and adapt it to individual needs. For this purpose, content management systems (CMS) are usually used, which already provide a basic website structure, often supplemented by user or file management. The most common CMS is WordPress, with around 64% distribution among the 10 million most frequently visited websites,[24] much more frequently than competing systems such as Shopify or Drupal. Here, too, it can be predicted that this application will continue to be maintainable for years to come. In addition, existing web projects at the LMU Center for Digital Humanities are mostly based on WordPress as well. This makes it possible to manage the projects collectively. Other solutions, such as individually set up websites, seem more problematic due to the small number of permanent positions available in university IT administration. As in the case of the administration software phpMyAdmin mentioned above, WordPress offers the possibility of working on different levels of abstraction. Creating new pages and editing existing static texts is possible in the

[22] https://www.itg.uni-muenchen.de/index.html. Accessed: 1 November 2023.

[23] Cf. Nixon (2018, p. 6) for the long-term outlook concerning future development and Open-Sourcedness of (My)SQL.

[24] Cf. https://de.statista.com/statistik/daten/studie/320670/umfrage/marktanteile-der-content-management-systeme-cms-weltweit/. Accessed: 1 October 2023.

web browser without much technical knowledge via a text editor which is included in WordPress. Structuring elements such as headers and footers or the overall design requires more knowledge, while the construction of dynamic content, such as a search function, requires sound knowledge of web programming. Though programmed by hand, dynamic content can be easily integrated into the basic modular structure of WordPress.[25] This guarantees individual adaptability to the specific challenges of a project.

ORDA16 uses WordPress with a Hestia theme based on the frontend CSS framework Bootstrap. Bootstrap is a highly responsive framework,[26] which means that it automatically adapts the display of the website to the size of the end device, be it PC, tablet or smartphone. This seems essential in the modern working world to optimize the user experience. In addition to the actual database search function, the website includes information about project goals, the team, and an internal area that serves as a repository for logs, documentation, and file repositories. In this way, all project resources are not only available online, but also in one central location. This is particularly advantageous when employees do not work in the same location or change their place of work. These areas are also designed in such a way that they can be edited by all project participants. As with the previously described use of phpMyAdmin in the database area, work processes can be optimized in this way and do not always require an intermediate step via the IT staff. At the same time, all information is available to everyone, which simplifies the training of student assistants or new project members, for example.

The core of the project is a search mask that can be used to search the data of *ORDA16*. The specific search criteria have already been addressed. This subpage of the web presence is dynamic and not directly created in WordPress but programmed separately with PHP and JavaScript as well as HTML and CSS to then be inserted into the WordPress architecture. It is divided into a simple search and an advanced search. In the simple search you can search only for a single criterion. For example, you can search all printed works that contain a certain translation. In the advanced search, search criteria can be combined. For example, you can search all printed works that contain a certain translation, were printed in a certain place and were published within a certain time frame. The results of a search are first enumerated in list form. Then it is possible to select these results and thus access a detailed view of the hit found (print, person or manuscript). This specifies the hits more precisely and describes them according to the bibliographical or biographical criteria mentioned above. The detailed views are linked to each other, so that the user can browse by jumping between articles, as one is used to from Wikipedia for example. Both the search results in list form and all detailed views of the objects entered are provided with unique URL addresses. This means that they can be saved if necessary and called up again later. Consequently, citability is also ensured. The cumulated

[25] Cf. Nixon (2018, p. 92) on the modular nature of the WordPress architecture.

[26] Cf. Krefeld and Lücke (2019) for features and requirements on modern websites.

information is licensed under CC BY-SA 4.0,[27] which ensures its usability in academic contexts. Where appropriate, links to related projects are included, for example to *VD16*, *VD17* or norm data entries for persons and places. Those lead to external webpages hosted by the corresponding institutions.

By choosing software that has been widely used for many years, we tried to do our best to ensure the future maintainability and therefore longevity of the project. In addition, we chose technical solutions like WordPress and phpMyAdmin that enable additions to the database and website without intricate technical knowledge. At the same time, by their modular nature, it is still possible to model complex requirements by dedicated IT employees.

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[27] Cf. Luecke (2022b) for a discussion on the use and viability of CC licenses in academia.

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Chapter 6
DATA(Researching—Compiling—Providing)CUBED The *Heidelberg Bibliography of Translations of Nonfictional Texts*

Anne Weber, Daniele Moretti, Anna Eschbach-Dymanus, and Vahram Atayan

6.1 On Translation in Early Modern Times

Traditionally, research on translation in the Early Modern Period has focused on literature in the narrower sense, so it may come as a surprise to some that the *Heidelberger Übersetzungsbibliographie nichtfiktionaler Texte* ('Heidelberg Bibliography of Translations of Non-Fictional Texts'; *HÜB*)—funded by the Deutsche Forschungsgemeinschaft (DFG, 'German Research Foundation'), project number 429695918—focuses on nonfictional texts. However, even today there is a rather unfortunate backlog with regard to translation bibliographies in general,[1] with some researchers pointing out a specific need to consider specialised prose as well.[2] As a matter of fact, around 75% of all new publications on the German book market were scholarly texts—you might even say scientific in the broadest sense—until around 1740;[3] there were actually "large amounts of translation […] in the fields of medicine, mathematics and astronomy, law and government, art and architecture

[1] Koller (2008, pp. 210–211).

[2] Ludwig (1997, p. 332).

[3] Spieckermann (1992, p. 193).

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[…], agriculture, literary science, and technology in its various branches."[4] Naturally, many of the translated texts were originally written in Latin in practically all European countries,[5] though the vernacular was also relevant in many places. With regard to medicine as one field of nonfictional translation for instance, it should be noted that physicians and surgeons—in contrast to 'medical scientists'—were dependent on German translations of relevant texts because they did not usually speak Latin or other foreign languages.[6] Even though some researchers claim that translation was practically irrelevant in Germany at the beginning of the eighteenth century,[7] estimates for the share of translations in the total number of publications for the late eighteenth century range from a probably-too-low 15% to a probably-too-high 75%.[8] With regard to German as a language of publication, we have to bear in mind that the vernacular prevailed only from the seventeenth century onwards. Around 1520, a mere 5% of all the works on the German book market were published in German; this number increased to approximately 30% around 1570, and only in 1681 did German take the lead.[9] All in all, it seems to be indisputable that nonfictional texts were actually of major importance in the Early Modern Period and should consequently be of major research interest.

With regard to the source languages involved, it is widely acknowledged that throughout history, different nations and by extension different languages have been considered as role models. Most notably, this was the case for French in the twelfth to fourteenth centuries (so before the period taken into consideration in our project) and then again in the seventeenth and eighteenth centuries as well as for English from the eighteenth century onwards.[10] Moreover, besides French, Italian was an important role model for linguistic as well as stylistic features from the thirteenth/fourteenth century onwards.[11] Yet from the eighteenth century onwards, English became so important a source of literary and scientific inspiration[12] that this period is sometimes even considered 'the English century of German *Geistesgeschichte*'.[13] Naturally, translation was an important means for 'discovering' foreign countries and their ideas.[14] However, the greatest share of books on the German book market was printed in Latin for quite a long time; some researchers talk about the year 1691 as the turning point,[15] while others consider this to be the middle of the eighteenth

[4] Gillespie (2007, p. 1441).
[5] Roloff (1998, p. I).
[6] Haage and Wegner (2007, p. 52).
[7] Fränzel (1914, p. 12).
[8] Willenberg (2008, p. 175).
[9] Hartweg (2000, p. 1686).
[10] Albrecht (2007, p. 1094), Koller (2007, p. 1704).
[11] Albrecht (2007, p. 1095).
[12] Fabian and Spieckermann (1980, p. 154).
[13] Fabian (1994, p. 141. Transl. A.W.).
[14] Willenberg (2008, p. 7).
[15] Immisch (1919, p. 26) (quoted in Gillespie 2007, p. 1443).

century.[16] Latin, of course, is not linked to a specific country but served as an international lingua franca throughout the Middle Ages and beyond (with French becoming the main lingua franca in the eighteenth century),[17] maintaining this special status until the twentieth century particularly in the sciences.[18] The transition from Latin to German as the main language of publication is also assumed to have led to an increase in the number of translations from other foreign languages.

It must also be noted that in some cases, translations were not produced directly on the basis of the 'true' original; instead, French or (less frequently) Dutch or Latin served as intermediary languages.[19] Sometimes, translators would simply prefer to use a translation as their source text due to the exemplarity of a particular (intermediary) language, most commonly French for its supposed 'clarté'.[20] In other cases, the mere non-availability of an original would force the translator to opt for a text in an intermediary language as their source text.[21] The Netherlands being an important centre for literature and printing, Dutch became a frequent intermediary language particularly for translations of English original texts into German.[22]

The different source languages also had an influence on German as a target language. Mainly in cases where Latin is the original language, but also generally, two different kinds of translation have been identified: those trying to imitate the original (sometimes on the verge of interlinear versions, generally favoured by scholars rather than the broader public)[23] and those trying to render the original in the usual vernacular.[24] This largely corresponds to the differentiation between what scholars call "gemaines Teutsch" and "aigen Teutsch", i.e. a common vernacular focused on content vs. a variety of German used and understood only by scholarly people.[25] Even though some source languages were more prestigious than German and considered to be more appropriate for the cultural and intellectual sphere—some German humanists even considered their native tongue to be 'barbarous'[26]—translators in the Early Modern Period mostly took an integrative approach in order to appeal to their readers.[27] Naturally, in those days there were no professional translators yet, with translation not being established as a genuine profession until the nineteenth century; in the beginning, it was usually aristocrats with an interest in the

[16] Ludwig (1997, p. 341).
[17] Willenberg (2008, p. 161).
[18] IJsewijn (2007, p. 1429), Müller (2003, p. 3).
[19] Willenberg (2008, p. 164), Spieckermann (1992, p. 194).
[20] Willenberg (2008, p. 173).
[21] Spieckermann (1992, p. 195), Willenberg (2008, p. 166).
[22] Willenberg (2008, p. 158), Price (1941, p. 118).
[23] Hohmann (1977, pp. 258–259).
[24] Koller (2007, p. 1706).
[25] Hohmann (1977, pp. 262, 264).
[26] Ijsewijn (1990, p. 48).
[27] Koller (2007, pp. 1702–1703), Koller (2008, p. 220).

respective works who ordered scholars or clerics to produce a translation.[28] Consequently, these translators often considered what they did an 'art' instead of a mere 'job'.[29] Nevertheless, it became common for translators to receive remuneration from the middle of the eighteenth century; on the one hand, this led to a significant increase in the number of translations published, but on the other, it also resulted in considerable reductions in quality due to (many) translators' lack of expertise.[30]

6.2 The Heidelberg Bibliography of Translations and the Digital Humanities

The project discussed here focuses mainly on the Early Modern Period, and more specifically on the timespan from 1450 to 1850. Over three separate projects, we have taken into consideration a total of seven source and intermediary languages: from 2005 to 2008, with the *Saarbrücker Übersetzungsbibliographie*, we worked on a Romance-German translation database, focusing mainly on French and Italian, but also—though not to the same extent—on Spanish and Portuguese. From 2011 to 2014, with the *Saarbrücker Übersetzungbibliographie—Latein*, we worked on a Latin-German database, and since 2020 we have been working on an English-German and Dutch-German database, while also integrating the datasets from the two previous projects. All three projects, taken together, form the *Heidelberg Translation Bibliography of Nonfictional Texts*, and are now accordingly accessible via one single interface.

In this section, we are first going to discuss the role of modern bibliographies in the context of the digital humanities (DH) in general. We will then focus on the *HÜB* in particular and discuss our project aims before presenting the current project status.

6.2.1 Modern Bibliographies in the Context of the Digital Humanities

Within the context of the DH, online bibliographies can clearly be viewed from two different perspectives: on the one hand, they are a kind of compilation work carried out by means of digital tools and IT methods; on the other hand, they become themselves digital tools that researchers can use for their own academic work.

The purpose of the DH is to establish ties between the humanities and computer science or the sciences in general; the web 2.0 revolution has opened up a number of opportunities for this field of research, and today, archives, libraries, museums and

[28] Albrecht (1998, p. 273).

[29] Konst et al. (2009, p. 26).

[30] Fränzel (1914, pp. 74–100), Seibicke (2003, p. 2382).

other institutions are expected to build appropriate infrastructures for the storage, processing and presentation of the 'cultural heritage' they hold.[31] Although the phenomenon itself has existed since the 1950s—with terms such as 'eHumanities' (the 'e' meaning 'enhanced' here) or 'humanistic computer science' emerging as early as the 1980s—the expression 'digital humanities' (DH) has become widely accepted only since 2004.[32] A look back at an early understanding of the DH can help us shed light on the role of online (translation) bibliographies:

> Die Digitalen Geisteswissenschaften, die Digital Humanities (DH), kann man in diesem Sinne auch als eine Hilfs- und Grundwissenschaft bezeichnen, d.h., dass man mit digitalen Methoden etwas 'macht', damit man richtige Wissenschaft machen kann […].[33]

This slightly outdated definition seems to be nevertheless convenient for our database; we seem to leave the actual (scholarly) 'science' part to others (e.g. for the analysis of cultural transfer phenomena, the history of translation or the history of a specific field such as medicine), yet provide them with an important resource for their work. The process of compilation itself, though often laborious and perhaps even tedious, is generally considered to be intellectually rather undemanding, a kind of necessary evil that must be carried out for the sake of research.[34] Thus, by providing a comprehensive database to other researchers, we are fulfilling an important requirement for all new tools within the DH: to offer a means for reducing the time needed to perform routine tasks.[35] The creation of digital infrastructures is a typical and well-known aspect of the DH, where it seems to be of particular importance to discuss the usability for others.[36] As we will see in the next subsection, this is a key feature of the *HÜB*.

Finally, it seems important to briefly mention one seemingly illogical peculiarity with regard to bibliographies: even though the DH have been established as a discipline for quite a while now, and the same is true for the use of digital tools and methods in the humanities in general,[37] many bibliographies are still published as printed monographs. Nonetheless, more and more researchers are trying to make their collections available online, which seems only logical if we want to provide our data to the general public.

[31] Börner et al. (2018, p. 8).

[32] Vogeler (2018, p. 15).

[33] Vogeler (2018, p. 12).

[34] Koller (2008, p. 210), Nies (1986, p. 152), Fabian and Spieckermann (1980, p. 154).

[35] Jannidis et al. (2017, p. 11).

[36] Vogeler (2018, pp. 16, 19–27).

[37] Kurz (2016, p. IX), Jannidis et al. (2017, p. XI).

6.2.2 Project Aims

Typical within the context of the DH,[38] the *HÜB* is a three-year project which aims to create a specific resource for academic research. Although we are certainly *providing* a data collection, it seems hard to identify its specific type (*research* vs. *community* vs. *reference data collection*), given that bibliographies are generally considered as one possible *source of information* for the creation of data collections.[39] It seems important in this context, however, to point out that where possible we try to provide links to digitised versions for all the works contained in our database, so we *make use of* (collecting the metadata from library catalogues mainly) and also *reference* other data collections.

Essentially, the *HÜB* pursues nine different objectives that can be classified into three domains, i.e. (1) the implementation of a data infrastructure, (2) data collection and evaluation, and (3) networking and collaboration.

The first group of aims is almost completed: we decided on the design of the new database and had it created by our IT experts; an online platform has been created and is now being used both by our project team as well as by external users; the data from the two prior databases mentioned above, the *Saarbrücker Übersetzungbibliographie* and the *Saarbrücker Übersetzungbibliographie—Latein*, have been transferred to *HÜB* and can now be searched through our interface as well, thus guaranteeing the long-term availability of the data.[40] This underlying technical system will be discussed in more detail in Sect. 6.3.

As for the second point, data collection and evaluation, we are constantly working on finding translations from English and Dutch into German that were published between 1450 and 1850 (we will go into more detail in the next Sect. 6.2.3). Where possible, we try to find digitised versions of entries primarily from the first of the prior projects, given that so much work is going on in this field in many research libraries. Moreover, we conduct analyses of the collected data ourselves, also taking into consideration the data from the two prior projects, and publish the results in relevant formats. Based on the information from the two previous projects for instance, we were able to show that older texts tend to have longer titles than more recent texts, and that some particular keywords appear exceptionally frequently in the titles of texts from this period.[41] In addition, the titles of older texts seem to be more emotive, while translations from the late seventeenth and eighteenth centuries tend to be more pragmatic; this might be due to the general tendency to rationalise during the Enlightenment.[42]

The third and last group of aims is fairly straightforward, comprising only two points: we provide our data infrastructure to other researchers who want to build

[38] Vogeler (2018, p. 21).

[39] Jannidis et al. (2017, pp. 224–225).

[40] See also the chapter by Greilich and Lüsebrink (Chap. 7).

[41] Weber et al. (2015, p. 310), Weber (2013, pp. 410–415).

[42] Atayan and Gil (2011).

similar collections, and of course we try to raise awareness about our project and get in touch with interested researchers.

In short, we aim to provide an empirical basis for research on the transfer of knowledge—be it with regard to cultural transfer, the history of translation or the history of a specific field—mainly by collecting basic bibliographic data, i.e. the names of author, translator and editor, the place and year of publication, etc., and providing the links to digitised versions if available.

We also assign to each work a thematic classification based on the first two levels of the Dewey Decimal Classification (DDC; the thematic classification is not our main concern; we merely want to give an indication of the subject matter covered in the respective work). The DDC is one of the most important classification systems used in libraries. Furthermore, the DDC originates from the end of the nineteenth century, so it is not too modern for our purposes (even though it has since been modernised). There is of course no categorisation that would enable us to adequately reflect the world in the sixteenth, seventeenth, eighteenth and nineteenth centuries, so we tried to choose a classification from the last of those periods and take that as a starting point—even though some of the subjects barely existed prior to that period.

We also specify a 'cultural area' indicating the country where the author was born and/or spent most of their working life. This parameter, however, cannot be used as a filter in the external search, firstly because it was not included in the prior Romance-language database. Moreover, the attribution of an author's 'cultural habitat' is not an exact science, particularly for authors who were in effect 'early modern globetrotters'. If a person, for instance, was born in Scotland, then educated in England, started working in Scotland again before emigrating to the United States, it is rather difficult to define their cultural affiliation. In other cases where hardly any information can be found, we can only make an educated guess as to the author's cultural background. Nevertheless, it may of course be relevant for users to differentiate between countries/cultures with the same national language, e.g. English from England vs. America, or to take into consideration texts from the same country published in different languages, e.g. Latin and French texts from France. For this reason, registered users who are interested in this kind of information can download their results after login and then filter them accordingly. Besides, we want to make our technical infrastructure available to interested researchers so that they can create their own databases using our infrastructure—as long as it is a translation bibliography, regardless of language pair and period.

All in all, these points taken together form the basis for the title of our chapter: we *research* data, we *compile* data, and we *provide* data to scholars, and it is cubed because we have three different projects which will eventually be turned into one.

6.2.3 Current Status of the Bibliography

We now want to briefly present the current status of the *HÜB*, taking into consideration all the works collected so far. With regard to the number of

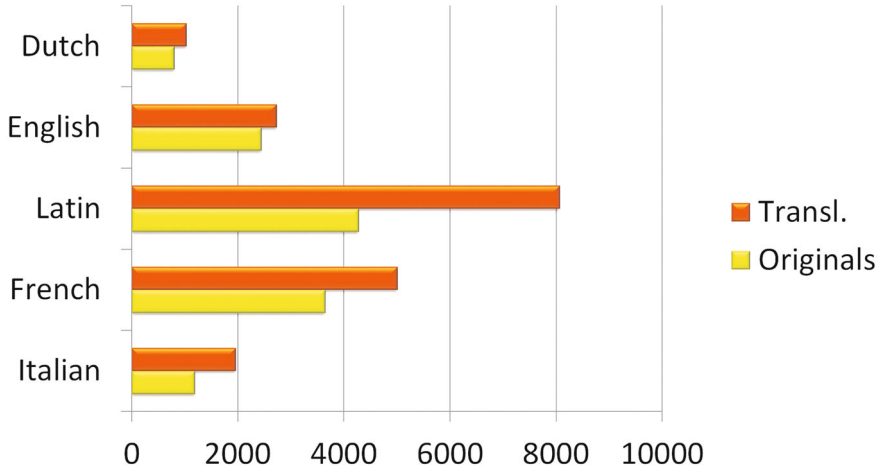

Fig. 6.1 Current project status (overall)

translations, we have to bear in mind that the work on the Latin, French and Italian databases is essentially complete (with the exception of links to digitised versions that we might still add in the future). In contrast, we are currently working on the English and Dutch data, so the results are still preliminary.

As can be seen in Fig. 6.1, we have more than 8000 translations for Latin, around 5000 for French, 2750 for English, almost 2000 for Italian and 1050 for Dutch as source languages. Originally, we hoped to find at least as many entries for English as we did for French. However, this turned out to be more difficult than we had originally expected, mainly because—while there is more information to be found on the internet in general (and library catalogues in particular)—information from different sources is often contradictory and we have to try to determine what is 'correct'.

For the works translated from Latin in particular, the number of originals is rather low (only approx. 4200 texts or 53%). For the other source languages, the share of translations with an identified original is rather bigger, ranging from 61% for Italian and 73% for French to 78% for Dutch and almost 90% for English. But why is there not a source text for all the translations? First of all, it is simply not possible to identify all the source texts, and specifically the original (what we might call the 'first' source text) when there are intermediary translations. Sometimes, we would find a text which clearly states that it was translated from language A into language B, but we simply cannot find out what the original was. And secondly, and this is particularly true with regard to Latin, a text might just have been called a translation for 'marketing purposes', i.e. to make it sound more interesting thanks to the prestige of the alleged source language.[43] Naturally, we cannot verify all of this,

[43] Weber (2015, p. 608).

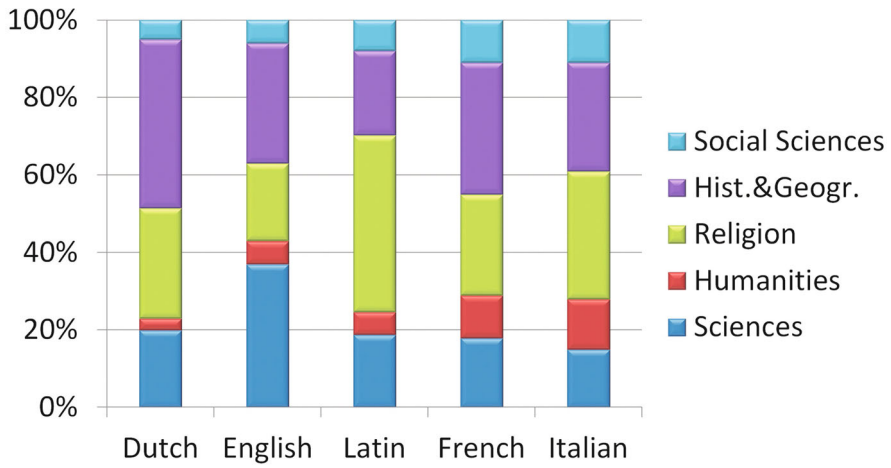

Fig. 6.2 Current project status (thematic distribution)

so we just take the information that we find in library catalogues and other sources and accept and classify texts that are called a translation as translations.

With regard to the thematic distribution, different source languages have different thematic focuses, as can be seen in Fig. 6.2. For the purposes of this chapter, we have summed up some of the DDC classes to form bigger categories and indicate topics that were important in those days. As for Latin, it seems obvious that there is a major focus on Religion, which accounts for almost 50% of all the translations included in our database. In contrast, we see that for English approximately 2/5 of all translated texts concern the Sciences including medicine, though the results are still preliminary. Moreover, texts from the category History and Geography make up between 22% and 34% for all the languages discussed here. This seems logical since literary texts are generally excluded from our collection, and from our modern perspective, we classify texts dealing with political events under 'History', so their share is likely to be rather significant. As for the Humanities,[44] this field was rather less important in those days, only accounting for between 6 and 13% of all publications. Last but not least, texts from the Social Sciences, comprising fields such as economics, law and education, represent between 5 and 11% of all works.

As for the geographical or more specifically cultural provenance of the works included in our database, the attribution of a 'cultural area' is most important for translations from English and Latin (see Sect. 6.2.2). To give a first insight into this parameter, the vast majority of the translations from English that we have collected so far have their cultural origin in England (1543 in total or 56%), a little over 10% (287) in Scotland, a surprisingly low 2.7% (73) in the United States, 2.5% (68) in

[44] In the context of the *HÜB*, the Humanities include all DDC categories that deal with philosophy, philology, rhetoric, and related subjects.

Ireland and only 0.7% (18) in Wales. The remaining 27% are attributed to other (and in some cases non-English-speaking) countries.

6.3 Technical Details and the Underlying Technology

6.3.1 Previous Experiences and Basic Database Features

When presenting the general technology underlying our database, we actually have to talk about databases in the plural because the current *HÜB* is essentially the third in a series of three projects funded by the DFG, the first of which started in 2005. From a technical point of view, we might just as well regard them as separate project phases, which in a certain sense have grown together to form the current *HÜB* project.

In a first step, the old datasets for the Romance languages were collected between 2005 and 2008 and incorporated an earlier bibliographical endeavour, a bibliography of French to German translations published between 1770 and 1815 (*Französisch-deutsche Übersetzungsbibliothek*), conducted under the direction of Lüsebrink/Reichardt, who kindly provided us with their results. Second, the Latin-German collection was assembled between 2011 and 2014. For both these collections, we used a MySQL infrastructure programmed in PHP. In contrast, for the new datasets included in our English-German and Dutch-German database started in 2020, we switched to PostgreSQL with a Python-based infrastructure provided by a Django framework. This evolution allowed us to implement a leaner relational data model into which we subsequently had to migrate the old datasets. The migration phase has since been carried out successfully, though it was very elaborate and time-consuming. The relations between entities, i.e., the categories into which the collected data are organised (persons for authors, translators, or publishers, as well as libraries, countries, etc.),[45] and their attributes were often treated differently in the older databases. While each document in the new database has an entry with its corresponding translations or originals, older databases used a separate, additional table matching the IDs of originals and translations. Each migration also posed numerous problems and challenges. Just to give a few concrete examples, the older databases often used text values instead of numeric ones to describe dates and date ranges. Since they were also not designated consistently (e.g. “1800–1874”, “geb. 1800, gest. 1874” or even just “19. Jhd.”), we had to write exhaustive scripts to automatically parse these into numeric values with a minimal error rate and information loss. In case of works with multiple authors and/or translators, names were often concatenated together and had to be split up. Moreover, we always had to ensure that migrated entities were matched to already existing ones, wherever possible. This proved to be difficult as minor mismatches due to typographical errors

[45] Jannidis et al. (2017, p. 103), Beynon-Davies (2004, p. 220).

or added comments hindered naïve string matching, i.e. a simple automatic search of matching strings was not always possible.

The administration page, where much of the project team's everyday tasks are performed, uses Django CMS.[46] The content management system is used to register all the works we identify, i.e. the bibliographical data of all relevant translations and the corresponding originals. Thanks to the administration page, which is provided by Django out of the box, users within the project team do not need to learn special SQL queries to modify the database. Moreover, this same convenience extends to programmers working on the configuration of the frontend or even handling database migrations. Django mediates between data models that exist on a programming code level and a relational database, thus allowing the programmer to access the data without having to manually formulate and launch SQL queries. Moreover, no separate user interface had to be programmed or introduced, which had been the case in previous project phases.

For our external users, there is a frontend public website with a search function. A log-in secured export function will be made available for the datasets themselves and the search results.

The perhaps biggest conceptional change in the data model, however, is that the publicly available search function no longer treats translations and originals separately. Instead, we treat original-translation pairs as one entity that can be retrieved through logical queries. Rather than hardcoding a document as a translation or original, we simply consider a document an original if it is assigned at least one other document as a translation and vice versa. In this framework, intermediary translations are identified as such because they appear both as a source and target document for each respective pair. This allows us to filter the documents on the website faster as we are interested only in the documents that are paired already. The documents without pairs will be displayed only if the annotators explicitly pair them with an empty (unknown) document. This is the case, for example, when the original of a specific translation cannot be identified, which is particularly common with older documents. Most importantly, however, the pairing of an original and a translation allows the user to specify whether the query filters should apply to the source or target document or both.

6.3.2 Current Project Status from a Technical Perspective

When talking about the evolution of the different databases, we will naturally focus on the technology we currently use, given that changes were necessary to overcome the rather outdated design of the previous databases—in the world of information technology, a period of 15 years feels rather longer than in normal life.

[46] https://www.django-cms.org/en/. Accessed: 3 November 2022.

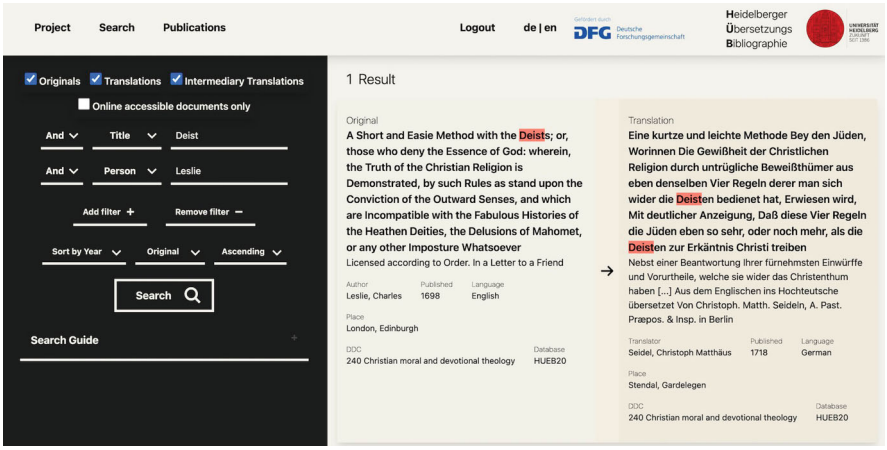

Fig. 6.3 Screenshot of the public interface

Fig. 6.4 Screenshot of the Django administration interface

The new public interface, which can be seen in Fig. 6.3, is programmed with a responsive design, i.e. the content visualisation adapts to the device being used, whether it is a smaller display or a classic desktop monitor.

The website is internationalised and is available in two languages: German and English. Model translations had to be done directly on a Django/database level (each entity or model contains two columns in the database *name_en* and *name_de*). The descriptive text on the website is translated with the help of Rosetta, a free of charge application for Django which allows the administrator to fill out English string replacements for the German strings.

The working interface, the administration page in Django as visible in Fig. 6.4, can be reached with a personal login, and contains all the (meta)data of the collected

works organised in tables. For bibliographical data entry, only the table Documents is actually used by the project team. The information entered in this table is automatically stored in the corresponding entity tables.

Finally, we think it is important to mention our server environments. Currently, we have two different servers virtually hosted in the heiCloud,[47] Heidelberg University's cloud infrastructure: hueb-staging and hueb. The 'staging' virtual server is designed as a test environment where, for example, new functions are trialled before they are deployed on the main hueb server.

The deployment of new functions and updates is fully automated and is executed via state-of-the-art workflow automation packages like GitHub actions, Ansible, Docker and Docker-Compose. A simple push to GitHub will trigger a number of scripts which automatically update the server.

In addition to collecting data on German translations from English and Dutch, merging the previous databases and making the collected data available on a long-term basis, one focus of the *HÜB* is to make the infrastructure available to interested researchers pursuing similar bibliographical projects. In the future, this can be ensured in three ways:

First, the interested researchers might use our database after being granted access to the Django interface. Their entries would be recorded in separate tables, so that the datasets are kept separate from the *HÜB* collections, but will be made visible on the publicly accessible website. This is the quickest solution to implement and is suitable for qualitative research projects that need an infrastructure in which to store the bibliographic data of collected translations, without a large amount of data being kept on our virtual server.

Second, the prospective users of the infrastructure would use a completely separate database, with each database having its own Django administrator. Data would still be stored on our server. While having the database saved on our servers would have the advantage for users of not having to deal with the technical management, it could also entail limitations due to the lack of direct management of backups and thus the dependence on a server not located within their own research institution in the unlikely event of a critical server failure.

Third, to overcome these limitations and thus in order be completely independent of Heidelberg's technical infrastructure, a further option may be considered, namely to connect Django's *HÜB* interface to an external server provided by an interested research group, with all the advantages, duties and responsibilities being borne by the third-party institution.

[47] https://heicloud.uni-heidelberg.de/index?lang=EN. Accessed: 17 November 2022.

6.3.3 On Long-Term Availability

As secure long-term archiving cannot be ensured by individual researchers or research projects granted time-limited funding, but only by organisations which are structurally designed for long-term existence, public institutions such as libraries and archives, cross-project infrastructural initiatives (such as DARIAH and CLARIN) or long-term financed repositories (such as the European Zenodo) can be considered for this purpose.[48]

As far as our project is concerned, long-term availability and durability will be guaranteed in cooperation with the Research Data Unit, a joint institution of Heidelberg University Library and the University Computing Centre (Universitätsrechenzentrum, URZ), which offers researchers the option of publishing and archiving their research data on a dedicated infrastructure.[49]

In particular, the Research Data Unit operates the research data repository heiDATA,[50] which requires that the project datasets be exported from our database system into an archivable data format that would ultimately be deposited in heiDATA using the open-source research data repository software Dataverse.[51] The Dataverse repository community, currently bringing together over 90 academic and research institutions around the world using Dataverse as the solution to their data sharing, archiving, and publishing needs, is committed to making research data available to all.

Generally speaking, before the data collection is referenced in a relevant system, so that it can actually be found by other researchers, availability is ensured firstly by the fact that suitable standards are used when creating the (meta)datasets themselves in order to guarantee interoperability. Secondly, the data is downloadable both as a whole and in selected parts, with as few technical and financial hurdles as possible. Thirdly, the data collection should be published in a repository relevant to the discipline or referenced in a relevant reference system, if one exists, so that it can actually be found by researchers.[52]

The different datasets are assigned a unique digital object identifier (DOI) to identify entries. This way, the datasets are ultimately made publicly accessible without any restrictions. This means that the datasets can be referenced clearly and used worldwide from the moment of publication and beyond the project term, as storage of the data is guaranteed for at least 10 years.

[48] Jannidis (2017, p. 230).

[49] https://data.uni-heidelberg.de/index.en.html. Accessed: 3 November 2022.

[50] https://heidata.uni-heidelberg.de/. Accessed: 3 November 2022.

[51] https://dataverse.org. Accessed: 10 November 2022.

[52] Jannidis (2017, p. 230).

6.4 The Challenges of Larger-Scale Databases

In this section, we would like to address some of the questions regarding the feasibility of a larger-scale database of translations, possibly even in a European context.

If we would like to get on board with the idea of setting up a comprehensive bibliography of European translations, the first aspect that needs to be addressed is basic project design. There are two different fundamental principles here: a top-down approach vs. a bottom-up approach.

The first option would aim to create a kind of minimalistic normalised scheme or template to maybe even (semi-)automatically integrate the data from existing bibliographies. Naturally, in this concept, it would also be possible to add new data in the future so that the collection could be amended or expanded at any time. The main advantage of this solution is faster implementation; the downside is that the recording of information would be rather limited, and consequently, all future data collection would be subject to the same limitations.

The second option would likely be harder to achieve. It would require analysing the structure of important pre-existing resources, specifically different databases that have already been developed, in order to find common ground as far as metadata and technical issues are concerned and then work out new ways to represent all this information together through one single interface. However, it seems clear that the higher the number of pre-existing collections, the more difficult this approach would prove to be, so all in all the first solution would seem to be more efficient.

Of course, regardless of the chosen solution, there are some fundamental and non-trivial issues as far as metadata are concerned. As mentioned above, the data we are integrating in our bibliography of translations of nonfictional texts, for instance, comprise author, translator and title, year and place of publication, publisher, a thematic classification as well as an indication of libraries in which the works are held, and links to digitised versions. These categories might seem fairly straightforward, but they may pose some challenges. To start with, even the notion of fictionality is not particularly clear-cut. If we take travel literature as an example, which was a fairly popular genre in the seventeenth and eighteenth centuries, we might argue that many of the reports are fictitious because the author literally invented the contents. On the other hand, these accounts depicted what the author imagined to be real, and they were often presented to the reader as being real (and it is actually not always possible to differentiate between actual and spurious travel reports without thorough research). Second, with regard to the entries themselves, an important question is how to treat different editions of the same work; should different versions of the same translation be integrated together as a single entry or should we create different entries for every single edition? A third important point, which would be really difficult to solve, is the thematic classification. The *HÜB* uses the Dewey Decimal Classification (DDC), more precisely the first three levels or in other words the first 1000 classes to categorise all entries. The underlying question here is how to classify the world—and it is not at all evident how to match things

between different bibliographies. With the idea of creating a pan-European translation database in mind, we might find that there is a lamentable lack of homogeneity between the different databases which are being created right now.

This conclusion leads us to the next important point that will have to be taken into consideration, namely the interoperability of different database structures. What about the possible logical relations between all the compiled datasets, between different bibliographies? How do we ensure interoperability in the first place? There will need to be a certain degree of homogeneity in the categories or entities. In a first step, it might be possible to work with placeholders (such as 'contributor' instead of 'author'/'translator' etc.) so as to facilitate the integration of different databases.

The last essential issue is the exchange file format, together with further broader technical challenges. We are addressing the exchange file format in particular here because we have many years of experience in this project and also integrated data from the German-French bibliography which was kindly provided to us by Hans-Jürgen Lüsebrink and colleagues during the first project term (cf. Sect. 6.3.1). There was a timespan of less than 10 years between the collection of data in the Lüsebrink/Reichardt project and their integration in our database—but, from a technical point of view, this posed a significant challenge due to the lack of a universal data exchange format in which the two systems (an older version of the LIDOS software and the scripting language PHP3) could communicate. The fundamental problem here seems to be the fact that, while the compilation of a comprehensive bibliography can take many years, the world of information technology is by comparison extremely fast moving, and it is therefore hard to reconcile these two fields. The exchange file format, for instance, should enable efficient parallel access to the data and allow for the use of user-friendly external interfaces as well as the addition of external data to the pre-existing bibliographies. When envisaging a pan-European translation database, it will be crucial to think carefully about all the technical aspects determining the usability and possible long-term availability of the data. All these technical questions will have to be discussed between scholars from all the fields involved and IT specialists, including experts on long-term availability, in order to find sustainable and long-lasting solutions and ultimately create a durable database.

6.5 Concluding Remarks

The compilation of bibliographies—be it in the classical form of a monograph or as an online database—is often underestimated and considered to be at the most laborious or tedious work. However, it should have become clear that in the context of the DH online bibliographies in fact play a dual role: on the one hand, during the process of compilation the researchers make use of many different digital tools, while on the other hand, the compilation as a product can be used by other researchers as a digital tool itself.

What we always have to bear in mind, however, is the immense speed of evolution in the IT sector, which means that the work is never really finished on either side; you are always finding more texts which could be included in a bibliography, and you always have to keep your data up-to-date in order to avoid major problems, mainly with regard to data durability. Nevertheless, such problems can be solved, as we were hopefully able to show using the example of our three separate projects which have now become one.

With regard to the idea of a larger-scale pan-European database, there will of course be more and in some cases different challenges to be solved. We hope that our chapter contributes to this important discussion, which will hopefully continue in the future and bear fruitful results.

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Chapter 7
Dimensions of Translation in the Context of French Encyclopaedism in the Age of Enlightenment: The *Encyclopaedias* Database

Susanne Greilich and Hans-Jürgen Lüsebrink

7.1 Research Perspectives

The eighteenth century saw not only the rise of encyclopaedias in the form of handbooks of articles arranged alphabetically, but also the spread of the genre across large parts of the European continent. Starting out in France, the Netherlands, the German-speaking area and England, encyclopaedias (in German: 'Reallexika' or 'Sachwörterbücher') such as the *Cyclopaedia* by Chambers or the *Encyclopédie* by Diderot and D'Alembert, soon also started apperaring in Southern, Eastern and Northern Europe, before becoming part of the publishing landscape in North and South America in the late eighteenth century. Just as the creation of encyclopaedias was in many cases transnational, so too was their reception. Thus, encyclopaedias were a driving force in the formation of a pan-European and transatlantic space of knowledge and communication in the eighteenth century. Our research project, entitled 'Dimensions of Translation in the Context of French Encyclopaedism in the Age of Enlightenment (1680–1800)', which since 2018 has been part of the DFG Priority Programme SPP 2130 "Early Modern Translation Cultures", aims to examine the role that translations played in this context and for early modern encyclopaedism.

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https://doi.org/10.1007/978-3-662-70483-7_7

We base our understanding of 'translation' on a notion that is primarily oriented towards a linguistic understanding of the term, that means that we focus on the transfer of encyclopaedias written in a specific source language into one or more target languages. The focus is on both the results and the processes of this transfer. We seek to shed light on how and which encyclopaedias have emerged from the translation of other encyclopaedias and on the epistemological changes that these texts have undergone in the course of their translation, i.e. the additions, deletions and updating of information. In this context, we also analyse intercultural and political dimensions of translation. This means that we examine both the strategies of translators and publishers to orient translated encyclopaedias towards their readership and to adapt them to the expectations and norms of the target culture and the transformations of the encyclopaedias themselves in their different dimensions (linguistic, formal, generic, content based). In addition to processes of vernacularizing and popularizing knowledge, strategies of 'nationalisation' can be detected, which must be thought of, among other things, in the context of eighteenth-century national scientific rivalry.[1]

Far from representing a work composed by a single author, each encyclopaedia is ultimately a compiled work and as such often the result of the international (active or only virtual) collaboration of scholars and part of a whole transnational network of texts. For this reason, translation processes can be identified for each encyclopaedia both in the narrower linguistic sense (see above) and in the broader sense of a transfer of knowledge across literary genres and cultures. If we want to illuminate the translational dimensions of encyclopaedism in the Age of Enlightenment we must therefore also take into account the internal dimensions of the text in a more general way, i.e. consider not only other encyclopaedias as source texts, but also other genres and types of works. It is known, for example, that for the 74,000 articles of Diderot's and D'Alembert's *Encyclopédie*—the original source text of which was Chambers' *Cyclopaedia* (the latter, for its part, being inspired by the *Dictionnaire de Trévoux*)[2]—numerous documents translated from other languages and genres were important sources.[3]

Translations of entire encyclopaedias into other vernacular languages went in most cases hand in hand with updating and supplementing information. They reinforced the network of relationships between texts. This is demonstrated in many cases by the paratexts of encyclopaedic works: forewords, dedications, footnotes, etc. in which translators and editors of encyclopaedias refer to the translated sources, as well as to previous texts that served as a model or which, on the contrary, an encyclopaedia sought to distance itself from.

Taking into account these multiple dimensions of translation in the context of early modern encyclopaedism, four research axes were at the heart of the first phase of the project (2018–2021):

[1] See Greilich (2021), Lüsebrink (2021c).

[2] See Leca-Tsiomis (1999).

[3] See Lüsebrink (2021a).

1. a complete documentation of all encyclopaedias resulting from the translation of other encyclopaedias, which appeared in Europe during the eighteenth century;
2. processes of cultural adaptation and autonomisation of translated encyclopaedias in relation to their source texts;
3. translators as intercultural mediators and important actors in the context of the transfer of encyclopaedic knowledge;
4. the role that translations played for the writing of geographical entries in the *Encyclopédie* by Diderot and D'Alembert

From a methodological point of view, case studies based on methods of philological and discourse analysis of selected encyclopaedia translations were combined with methods of bibliographic capture of the entire corpus. The latter led to the creation of an online database, which was realized with the help of the University Library of Regensburg (Germany).[4]

7.2 The Encyclopaedias Database

7.2.1 Premises, Structure and Design of the Database

The database is open access; it is free of charge for users. In accordance with the language policy of the Deutsche Forschungsgemeinschaft ('German Research Foundation') and for the sake of international visibility, the website is in English. The provision of the database follows the principles of research data handling of the Allianz der Deutschen Wissenschaftsorganisationen ('Alliance of Science Organisations in Germany', 2010), the guidelines on research data handling of the Deutsche Forschungsgemeinschaft (2015)[5] as well as the latter's Code of Conduct *Safeguarding Good Research Practice* (2022; guideline 13: public access to research results according to FAIR principles).[6] From the point of view of science policy, the database takes into account, on the one hand, the objective of verifying scholarly work and, on the other hand, the sustainable storage and provision of data with the aim to open up further research. In accordance with the rules of good scientific practice, archiving and free access to the data are guaranteed by the supra-regional infrastructure of the Regensburg University Library.

The database aims to document the importance of translation processes for early modern encyclopaedism. The notion of 'encyclopaedia' underlying the database is strictly limited to the early modern (and modern) use of the term, designating a

[4] https://encyclopaedias.uni-regensburg.de/. Accessed: 26 January 2024.

[5] See *Grundsätze zum Umgang mit Forschungsdaten* (https://doi.org/10.2312/ALLIANZOA.019); *Leitlinien zum Umgang mit Forschungsdaten* (https://www.dfg.de/resource/blob/172112/4ea861510ea369157afb499e96fb359a/leitlinien-forschungsdaten-data.pdf). Accessed: 26 January 2024.

[6] See https://doi.org/10.5281/zenodo.3923601. Accessed: 26 January 2024.

reference work that provides summaries of knowledge, either of all branches of science or of a particular field or discipline, and that is divided into alphabetically ordered entries. This definition of 'encyclopaedia' corresponds—as mentioned above—to the genre of 'Sachwörterbuch' or 'Reallexikon'. The self-designations of the corresponding works are mostly 'dictionary', 'dictionnaire', 'Wörterbuch', 'Lexikon', 'diccionario', 'dizionario', and so on. The database aims to make visible, quantitatively and qualitatively, the relevance of translation for the development of the genre and for the spread of encyclopaedias to other countries and continents. Three aspects are of particular importance: (1) providing information on concrete textual filiations and on, possibly multi-level, translation processes for each encyclopaedia; (2) highlighting translators as actors in intercultural mediation and knowledge production; and (3) providing information on the content and materiality of the works. The database aims thus, on the one hand, at completeness (all known translations of encyclopaedias of the period studied are entered) and, on the other hand, at providing detailed bibliographical information.

Based on these premises, the database is structured according to four different groups of data. It provides (1) bibliographical information of source and target texts which is as complete and precise as possible (author, full title, place and year of printing, publishing house, number of volumes, pages, format); (2) detailed information on the paratexts, such as forewords, dedications, epilogues, illustrations (designation, scope, position within the text, author); (3) information on translation aspects (names of the translators, source and target languages, exact references to the source text(s) and translations); and (4) information on available digitised copies of the encyclopaedias to facilitate further analysis. We have given priority to links to open access digitised copies, provided by public research libraries (e.g. *Gallica* of the Bibliothèque Nationale de France, digital collections of the Bayerische Staatsbibliothek (BSB), etc.) and/or Google Books.

The database has been equipped with various search and navigation functions. In addition to individual searches (by title, author/translator, year), it is currently possible to display all editions (source texts and translations) of a specific encyclopaedia or all publications by a specific author/translator (Fig. 7.1). For each of the encyclopaedias listed, information is available on the exact source texts or, conversely, on all complete or partial translations, which originate from a source text. The datasets themselves are linked (Figs. 7.2 and 7.3).

In the future, further search and browse functions will be introduced, such as searching according to a specific source or target language.

7.2.2 Challenges: Choice of Corpus, Processing and Linking of Data

The starting point for our documentation was translated encyclopaedias, or more precisely: eighteenth-century vernacular or Latin encyclopaedias that are the result

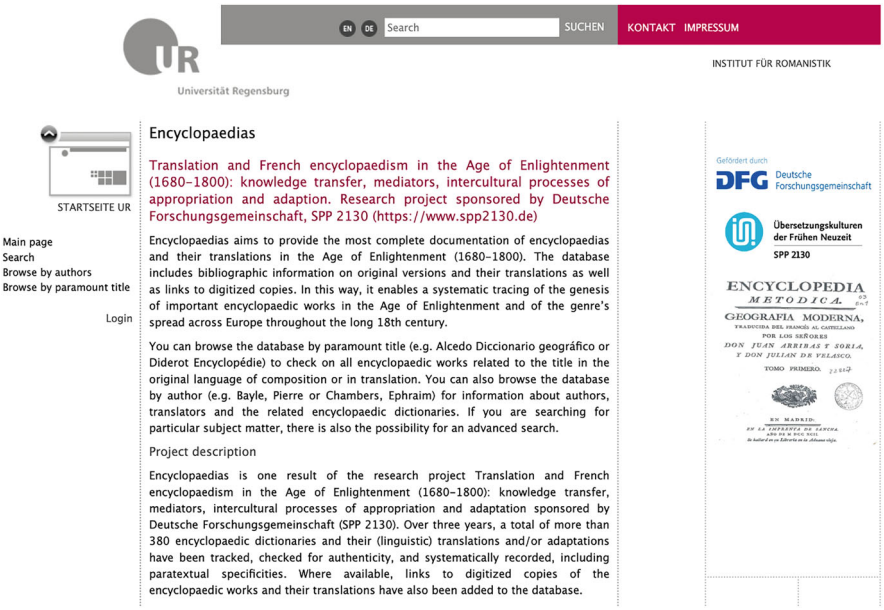

Fig. 7.1 Search options of the database, https://encyclopaedias.uni-regensburg.de

of a linguistic translation of a pre-existing encyclopaedia written in another language. Based on bibliographies of translations, studies on European encyclopaedism and lexicography of the eighteenth century, as well as meta-catalogues (such as KVK,[7] WorldCat) and the Gale databases (*ECCO*, *Making of the Modern World*), we first established an overview of encyclopaedia translations and their (potential) source texts, including a directory of digitised copies or accessible library copies. Then we systematically examined and evaluated each work (in many cases on the basis of a digitised copy), according to the criteria determined earlier. The paratext of the translations was analysed, in particular with a view to verifying the precise source texts of a translation (and if possible indicating the exact edition). In this context, we drew on our own linguistic expertise for works in Romance languages (French, Italian, Spanish, Portuguese) and in West Germanic languages (English, German, Dutch), while for texts in Scandinavian languages (Swedish, Danish) and Slavic languages (Polish, Russian) we relied on translation programmes or the expertise of colleagues. Each reference to a source text was checked against a

[7]The Karlsruher Virtueller Katalog (KVK), a free and openly accessible meta-catalogue, allows about 80 bibliographic databases to be searched simultaneously as a meta-search engine. The databases searched include all German-language library catalogues and many international catalogues, as well as interlibrary databases and search engines. Freely accessible databases of digitised texts (e.g. Internet Archive, Hathi Trust DLib, Google Books, DFG eBooks, etc.) are also searchable. The KVK was created in 1996 at the library of the Karlsruhe Institute of Technology (KIT), which also manages it. See: https://kvk.bibliothek.kit.edu. Accessed: 26 January 2024.

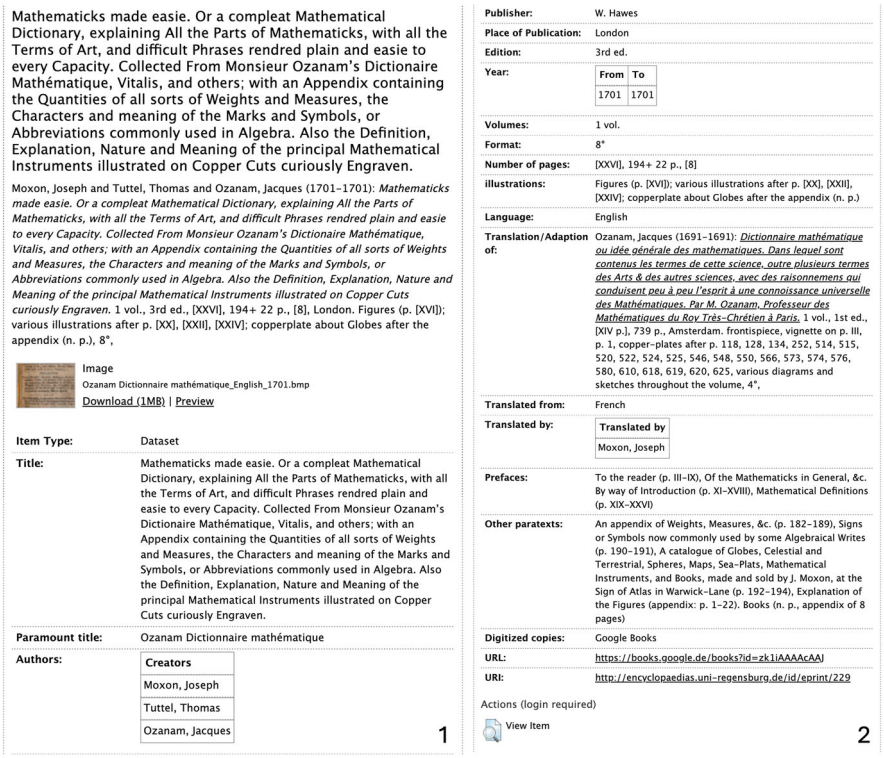

Fig. 7.2 Dataset example "translation" of the database

copy of the source indicated. The same procedure was used in cases where no source text was explicitly specified, but the title and/or content of the translation suggested a specific source text. So far, over a period of 3 years, more than 380 encyclopaedias have been systematically evaluated and their data recorded.

While the delimitation of the corpus seemed clear in principle, the practical work on the texts soon confronted us with more complex translation processes. This was a challenge given our desire for uniformity on the one hand and accuracy of data capture on the other.

For instance, it is not uncommon to find encyclopaedias based on a variety of source texts. Some Dutch, German, English and Spanish encyclopaedias have merged different editions of an encyclopaedia or even completely different encyclopaedias into one translated text. For example, Christian August Wichmann's biographical encyclopaedia *Geschichte berühmter Frauenzimmer* (Leipzig, 1772–1775, 3 vols.) combines translations of both the *Dictionnaire portatif des femmes célèbres* by Jean-François de Lacroix and the English *Female Worthies* (London, 1764, 2 vols.). The second edition of James Grassineau's *Musical Dictionary* (London, 1769) is based on translations of both Sébastien de Brossard's *Dictionnaire de musique* (Amsterdam, 1710) and Jean-Jacques Rousseau's

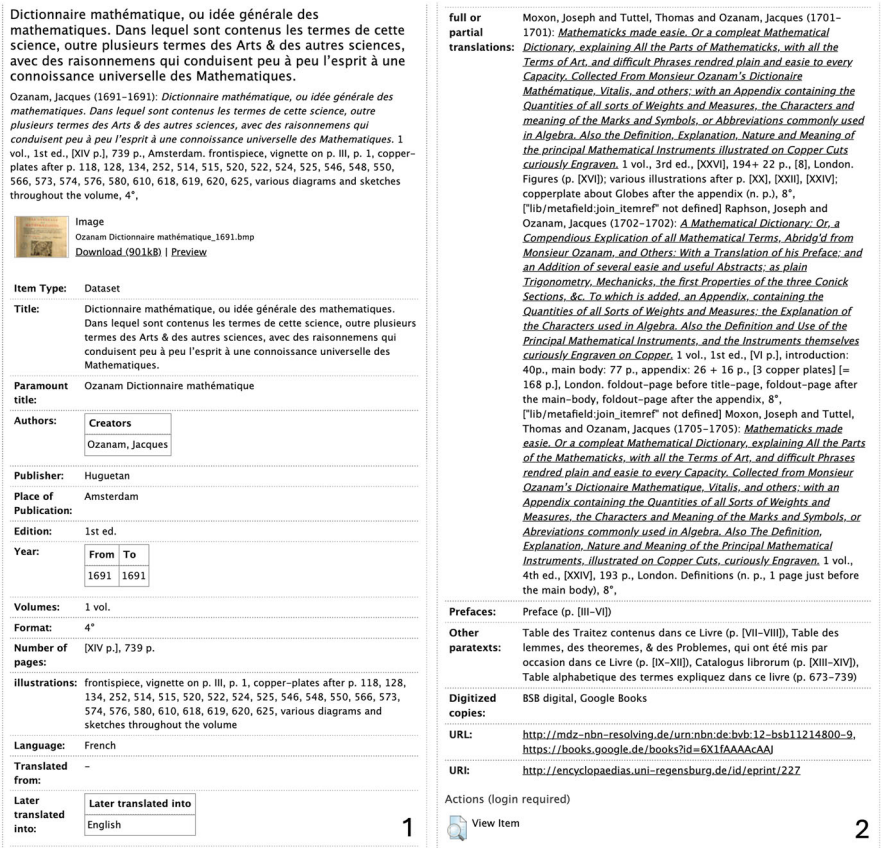

Fig. 7.3 Dataset example "source text" of the database

Dictionnaire de musique (Paris, 1768). Jan Lodewyk Schuer and Arnoldus Hendrikus Westerhoff integrated partial translations of the English *Lexicon Technicum* by John Harris (London, 1736, 2 vols.) and Georg Heinrich Zincke's *Allgemeines Oeconomisches Lexikon* (Leipzig, 1731) into their Dutch version of Noël Chomel's *Dictionnaire œconomique* (Paris, 1732, 2 vols.), the *Huishoudelyk woordboek* (Leiden, Amsterdam, 1743, 2 vols.). In other cases, the translation of an encyclopaedia incorporated translated information from other types of texts, as in the case of the Dutch *Fruitkundig woordenboek* (Amsterdam, 1805–1806, 2 vols.), for which information given by the English author William Forsyth in his *Treatise on the Management and Culture of Fruit Trees* (London, 1803) was integrated into the translation of the German *Pomologisches Handwörterbuch* (Leipzig, 1802) written by Johann Ludwig Christ.

Finally, there are some rare examples of encyclopaedias which were entirely based on a different genre of source text, such as manuals. For example, George Louis Marie Dumont de Courset's botanical manual *Le botaniste cultivateur* was

transformed into an encyclopaedia when it was translated into German (*Die botanische Pflanzkunst nach Dumont-Courset*. Leipzig, 1805, 2 vols.). It should be noted that such translation and transfer processes between literary genres also took place in reverse order, especially in cases where separate articles from encyclopaedias were translated and published as a manual—a common practice in late eighteenth-century Russia, for example.

A second challenge we faced in establishing the database is a phenomenon we called 'autonomisation' and which is related to the edition history of encyclopaedias. In many cases, encyclopaedias were reissued several times and corrected and updated almost each time. As a result, over the years, some encyclopaedias, which were originally derived from the linguistic translation of another encyclopaedia, became increasingly autonomous, distancing themselves from their source text. The *Dictionnaire géographique-portatif* by Jean-Baptiste Ladvocat (Paris, 2nd edn., 1747) is a good example for this phenomenon. This text was originally a translation of Lawrence Echard's *Gazetteer's or Newsman's Interpreter* (London, 13th edn., 1731) and served as a relay text for the translation of Echard's encyclopaedia into other European languages, such as Italian (1749) and Spanish (1750). Over the years, Ladvocat's encyclopaedia became a completely autonomous work due to the numerous changes made to its successive editions. Nevertheless, the encyclopaedia kept the reference to Echard's work for a long time, as a kind of 'label for quality', which resulted in the fact that later Italian (e.g. 1770, 1771, 1778, 1787, 1793, 1794, 1800) and Spanish (e.g. 1772) editions, as well as those published in Polish (1784) and German (1764), continued to refer to both the English original and the French translations as source texts. Only a precise comparison of the texts would make it possible to determine the actual influence of Echard's work on the Italian, Spanish, Polish and German versions of Ladvocat's dictionary.

We addressed the challenges described above by striving for an approach which is both consistent and pragmatic. We entered encyclopaedias as translations in the database and entered data on its sources only when an encyclopaedia explicitly mentioned a source text, either by quoting or referring to the author or title of the source text on the title page or in the paratexts. If there was no reference to a source text, we also entered encyclopaedias as translations and information on source text when (a) the title and the content identified the work as a translation and (b) a specific source text could be identified. In the case of translated encyclopaedias which synthesize different sources, we entered only sources which were explicitly mentioned on the title page, in the paratexts or in the articles.

At the same time, we recognise the limitations of this approach, particularly in the case of encyclopaedias which bear only a loose relation to their sources or encyclopaedias which incorporate a range of material in addition to the main foreign source text. For example, it would be very desirable to shed more light on the complex network of textual relations of Diderot's and D'Alembert's *Encyclopédie*, in order to be able to determine more precisely the importance of translation processes for the writing of this work, originally derived from the *Cyclopaedia* by Chambers. However, such an undertaking is not only beyond the capacity of a small group of researchers, but also beyond the capacity of a single database in terms of reasonable data presentation.

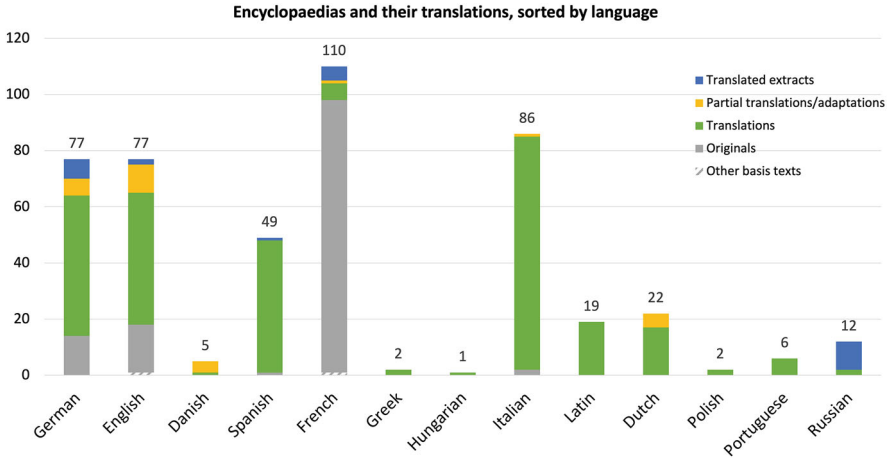

Fig. 7.4 *Encyclopaedias* and their translations (1680–1800), sorted by language

7.3 Analyses and Explorations

Our database of encyclopaedia translations opens up multiple perspectives for analysis and exploration, among which we would like to highlight and present three different ones.

Firstly, an analysis on the basis of the data provided focusing on the flows of 'intraductions' and 'extraductions' highlights in a striking way the asymmetrical relations between the different European cultures producing encyclopaedias during the Age of Enlightenment (Fig. 7.4).[8] France and the French-speaking cultural area were the predominant source of encyclopaedias translated into other languages in the eighteenth century. The French-speaking cultural and linguistic area included, beyond the Kingdom of France, in particular the French-speaking part of Switzerland with important printing centres such as Geneva, Lausanne and Neuchâtel, and the Netherlands with the cities of Amsterdam, Rotterdam, Leiden and The Hague. Pierre Bayle's famous *Dictionnaire historique et critique*, for instance, was published for the first time in Rotterdam in 1697 and was later translated into German, English and Danish. This predominant position of the French-speaking

[8]The neologisms 'extraduction' and 'intraduction', two portmanteaux of the terms 'traduction' ('translation') and 'extra'/'intra', denote translation flows outgoing from the vernacular language of a specific country or area, or vice versa, ingoing flows to that language/linguistic area. Ganne and Minon (1992, p. 58) define the terms as follows: "L''intraduction' représente les livres traduits dans la langue du pays d'édition à partir d'une œuvre écrite dans une langue originale étrangère. L''extraduction' représente, en revanche, les livres 'exportés' d'un pays et traduits dans une ou plusieurs langues étrangères", "Intraduction' refers to books translated into the language of the publishing country from a work written in a foreign original language. 'Extraduction', on the other hand, represents books 'exported' from one country and translated into one or more foreign languages.' Transl. S.G.

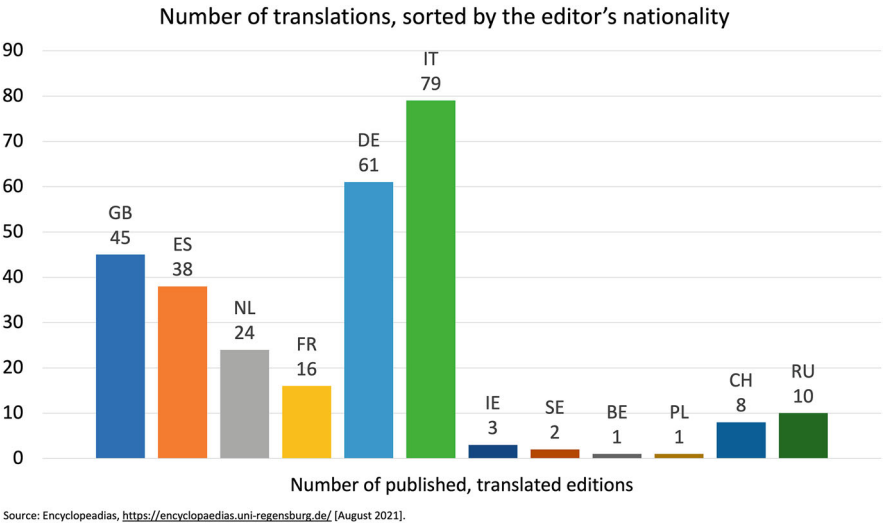

Fig. 7.5 Number of translations (1680–1800), sorted by the geographical location of the editor

cultural area, or more precisely of French as a language of publication, on the market of the production and translation of encyclopaedias in the Age of Enlightenment corresponds to its hegemonic position in many other cultural sectors such as fictional literature, scientific publications or the periodical press, from the end of the seventeenth century, the last decades of the reign of Louis XIV, until the end of the Napoleonic Empire. This phenomenon of cultural hegemony has already been analysed, especially from a quantitative perspective, with regard to other literary and artistic genres, like, for example, the novel between 1750 and 1900.[9] As far as the statistics of 'extraductions' of encyclopaedias are concerned, English and German (respectively England and the German-speaking area), occupy the places after French (and the Francophone area) in the ranking of encyclopaedia translations.

Secondly, Italy, the German-speaking area, England and Spain represent the cultural areas with the greatest number of 'intraductions' of encyclopaedic publications, whereas French publishing houses published relatively few translations of encyclopaedias during the eighteenth century (Fig. 7.5). French encyclopaedias were undoubtedly the dominant 'model' in the field of modern encyclopaedism in the Age of Enlightenment, seeing numerous imitations and translations, much more so than encyclopaedias from other cultural areas. However, French encyclopaedic 'models' in all their varieties, were—as the titles of the translated encyclopaedias often testify—adapted, revised and thus transformed as they were transferred into the

[9] Franco Moretti published his results on this corpus of analysis in his *Atlas of the European Novel, 1800–1900*, see Moretti (1998, 2000). Moretti's book also contains statistics on the production of novels and translations of novels during the second half of the eighteenth century, which illustrate the French predominance in this literary sector.

different target cultures. Prefaces, supplements and substantial additions, especially in the footnotes, all constituting different forms of paratexts, indicate how the source texts were transformed through the process of translation.

This process needs further qualitative analysis based on case studies. Following existing work,[10] we have started to carry out these micro-analyses by choosing some major examples such as the Spanish translation and adaptation of different parts of the *Encyclopédie méthodique,* or the German and English translations and adaptations of the *Dictionnaire universel de commerce* by the Savary Des Bruslons brothers, the most important economic encyclopaedia in France and Europe until the 1770s.[11]

Thirdly, the situation outlined above concerning France and its European neighbours changed significantly at the end of the eighteenth century, as the database shows when viewed diachronically. From the end of the eighteenth and beginning of the nineteenth century, the German-speaking lands became an important source of 'extraductions' of encyclopaedias, due in particular, but not exclusively, to the translations of the *Brockhaus Universal-Lexikon* (1796–1806).[12] Similarly, encyclopaedic works from Spain and Russia, countries on the periphery of the European Enlightenment, were also translated into other European languages. This was the case with Antonio de Alcedo's *Diccionario geográfico-histórico de las Indias Occidentales ó America* (Madrid, 1786–1788), the first encyclopaedia published by a South American author (Alcedo was born in Quito, Ecuador, in 1735 before emigrating to Spain) and translated into English in 1812.[13] These developments reflect a significant shift in the hegemony of knowledge structures and transnational cultural transfers and, to some extent, also an epistemological rupture, both of which are linked to power relations, in the political as well as in the academic field, and more broadly, in the field of knowledge.

7.4 Open Questions and Further Investigations

We would like to address and share some methodological and theoretical issues and challenges that we regularly discuss in our project and that require further research and possibly an expansion of the database. These questions concern (1) periodisation; (2) partial translations; (3) translations of original texts in encyclopaedias; and (4) translators.

1. *Periodisation*: As we have already indicated, the limitation of the corpus of the project and its database to the Age of Enlightenment, which generally covers the

[10] See, for example, Denny and Mitchell (1994), Dingel (1998), Donato (2006).

[11] See Greilich (2017, 2021), Lüsebrink (2017, 2021b).

[12] See D'Aprile (2021).

[13] See Lüsebrink (2021c).

Rank	Encyclopaedias (short title)	Nb. of translations (editions)
1	Moréri, *Grand dictionnaire historique* (1674)	27
2	Echard, *Newman's Interpreter* (1692)	25
3	Ladvocat, *Dictionnaire historique portatif* (1747)	25
4	Miller, *The Gardener's Dictionary* (1731)	18
5	Bayle, *Dictionnaire historique* (1692)	16
6	Calmet, *Dictionnaire de la Bible* (1722-28)	16
7	*Encyclopédie méthodique* (Panckoucke, 1782-1832)	14
8	Ladvocat, *Dictionnaire historique-portatif* (1751-54)	14
9	Alletz, *Dictionnaire théologique* (1756)	13
10	Diderot/D'Alembert, *Encyclopédie* (1751-80)	10

Fig. 7.6 List of 10 most translated encyclopaedias (full and partial translations from the middle of the 17th until the middle of the 19th century). Source: *Encyclopaedias*, https://encyclopaedias.uni-regensburg.de/. Accessed: 31 August 2021

eighteenth century and sometimes the period from 1680 to 1815, must be extended, in order to meet the objectives of our project, to a 'long eighteenth century' beginning in the 1670s with the publication of Louis Moreri's *Grand dictionnaire historique* (1674), which was to be the most translated encyclopaedic work for the next 130 years, until the 1820s and 1830s (Fig. 7.6). The year 1815 as a periodic break, originating in the political field but highly questionable in cultural terms, is also a date that is called into question by the fact that some of the main encyclopaedias published during the eighteenth century were only translated, especially in the form of partial translations, in the 1820s and 1830s. This was also the case for the most voluminous encyclopaedia of the French Enlightenment, the *Encyclopédie méthodique,* published in 206 volumes between 1782 and 1832.

2. *Partial translations*: We have recorded in our database not only complete translations of encyclopaedias but also partial translations in the form of books, such as the translation of parts of the *Encyclopedie méthodique* into Spanish. However, so far we have not entered into our database the many translations of selected parts of encyclopaedias published in periodicals nor systematically recorded their insertion in other encyclopaedias. Two examples of this phenomenon can be mentioned. First of all, the most extensive encyclopaedia of the time, the *Encyclopédie méthodique*, was never translated in its entirety in the German-speaking world, nor in the form of books with partial translations. But it can be found in the form of translations of excerpts published in numerous German periodicals of the time. These partial translations are particularly relevant to the

natural sciences, but also to history and philosophy, where they are often accompanied by highly critical commentaries.[14] A second example is the insertion of at least 25 translated articles in the fields of geography, mineralogy, botany and mining in Diderot's and D'Alembert's *Encyclopédie*, taken from the German *Reales Staats-und Zeitungslexicon* published by Johann Hübner from 1704 onwards. These articles were translated probably mostly by Baron D'Holbach. Hübner's *Reales Staats- und Zeitungslexicon* was the basis for the very successful genre of 'Konversationslexika' in Germany, especially targeted at newspaper readers. Combining encyclopaedias with dictionaries of language, the 'Konversationslexika' constituted a new genre of popularisation of knowledge (and its respective terms). The genre spread to other countries through translations and adaptations, mainly from the beginning of the nineteenth century onwards.[15]

3. *Translations of original texts within encyclopaedic works*: if we consider the relations between encyclopaedias and their translations in all their complexity, we are not only confronted with the translation of encyclopaedias themselves, but also with transcultural processes within the encyclopaedic text. These processes constitute an explicit or implicit intertext, which is sometimes, but not always, indicated by quotations in inverted commas, by notes or by bibliographical references. The translations indicated in encyclopaedic publications are frequently based on existing translations, but they are also very often commented on, abridged, or modified. In other cases, and particularly in the case of Diderot's and D'Alembert's *Encyclopédie*, to which leading translators such as Marmontel, D'Holbach and Diderot himself contributed, there are translations of texts made by the contributors themselves, from a multiplicity of foreign-language publications, including encyclopaedic works.[16]
4. *Translators* (Figs. 7.7 and 7.8): The database indicates the names of the translators, if they are mentioned on the title page or in other parts of the paratext or if we have managed to find their names through bibliographic searches. Corresponding to the asymmetrical flows of translations mentioned above, we can see that among the ten most active translators (who translated the most encyclopaedias, in terms of editions), four are Italian, two are German, two are English, one is Dutch, and one is Spanish, but none is French. But, as is the case with the production of the encyclopaedias themselves, the name of a single translator, often cited as a kind of 'seal of approval' or 'good reputation', usually conceals the fact that the translations were very often the result of a collective effort. This is true, for example, of the German translation of Pierre Bayle's *Dictionnaire historique et critique*, where the writer and translator Johann Christoph Gottsched appears on the title page as translator and editor, whereas Bayle's dictionary was actually translated in Leipzig by a group of mostly

[14] See Lüsebrink (2019).

[15] See D'Aprile (2021), Loveland (2021).

[16] See Lüsebrink (2021a).

Translator	Translated encyclopaedias	Languages	Total (editions)
Mansi, Gian Domenico (1692-1769)	Calmet Dictionnaire de la Bible	Français > Latin	10
Westerhoff, Arnold Heinrich (1677-1738)	Calmet Dictionnaire de la Bible Chomel Dictionnaire œconomique Hübner Staats- und Zeitungslexikon Marperger Curieuses Lexicon	Français > Dutch German > Dutch	5
Dell'Aquila, Prospero	Alletz Dictionnaire théologique Barral Dictionnaire de la Bible	Français > Italien	5
Zaccaria, Francesco Antonio (1714-1795)	Ladvocat Dictionnaire historique portatif	Français > Italien	5
Alberti di Villanova, Franceso (1737-1801)	Lacombe Dictionnaire du citoyen	Français > Italien	4
Huth, Georg Leonhart (1705-1761)	Miller The Gardener's Dictionary	English > German	4
Postlethwayt, Malachy (1707?-1767)	Savary des Bruslons Dictionnaire universel de commerce	French > English	4
Bradley, Richard (1688-1732)	Chomel Dictionnaire œconomique	French > English	3
Serna, Juan de la	Ladvocat Dictionnaire géographique portatif	French > Spanish	3
Leonhardi, Johann Gottfried (1746-1823)	Macquer Dictionnaire de chymie	French > German	3
Chazelles, Laurent-Marie de (1724-1808)	Miller The Gardener's Dictionary	English > French	3
Capmany y Montpalau, Antonio de (1742-1813)	Ladvocat Dictionnaire géographique portatif	French > Spanish	3
Contin, Tommaso Antonio (1723-1796)	Pluquet Dictionnaire des hérésies	French > Italian	3
Bašilov, Semen Sergeevič (1740?-1770?)	Diderot Encyclopédie (en extraits)	French > Russian	3
Kozel'skij, Jakov Pavlovič (1728-1794)	Diderot Encyclopédie (en extraits)	French > Russian	3

Fig. 7.7 The 15 translators who published the most translations (editions)

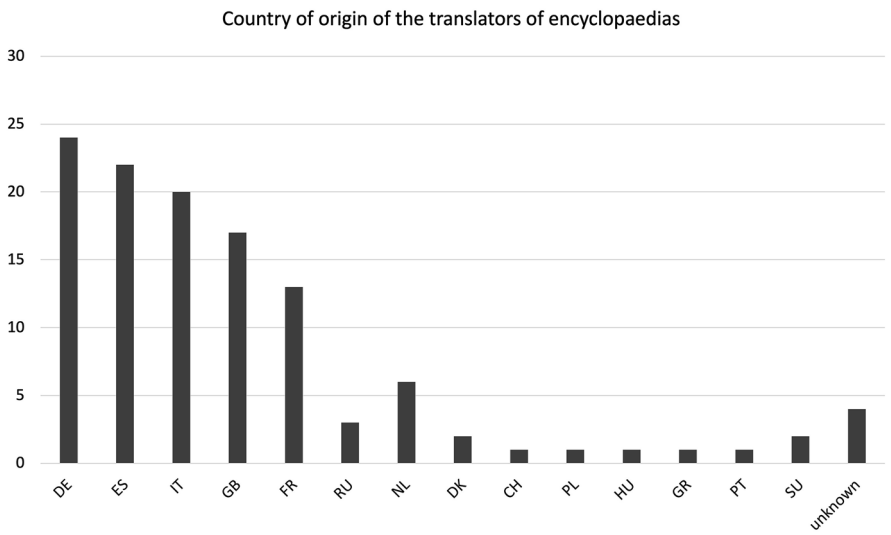

Fig. 7.8 Country of origin of the translators of encyclopaedias. Source: *Encyclopaedias*, https://encyclopaedias.uni-regensburg.de/

anonymous translators, among whom Luise Gottsched played a predominant role.[17] They came often from academic circles and were in a precarious financial and professional situation, using translation as an additional and quite lucrative livelihood. As Gottsched himself states in his preface, his own role consisted mainly in proofreading and correcting the translations made by his collaborators, both in terms of content and style.[18] The challenge for our database is to collect and capture as accurately as possible, using a wide variety of sources, the names, functions, as well as the social and bibliographic profiles of translators who undoubtedly played a central role as 'cultural brokers' or (inter)cultural mediators.

7.5 Outlook: Geographical Dictionaries and Transatlantic Knowledge Space

In the second phase of the project (2022–2025), the analysis of translation processes in the context of the encyclopaedism of the Age of Enlightenment will be broadened to a transatlantic perspective.

Based on an analysis of the first American encyclopaedias of the eighteenth century as well as selected French sources and their knowledge of America, we aim to determine, on the one hand, the role that translation processes (in a linguistic, intertextual and cultural sense) played in the creation of a transatlantic space of knowledge. These processes, on the other hand, are to be determined in terms of their potential to generate an independent discourse of knowledge about America on the American continent and to bring about epistemic power shifts between the 'metropoles' and their colonies, as well as between the 'centres' and the 'peripheries' of Enlightenment. In addition to Morse's *American Gazetteer*, our corpus will comprise Alcedo's *Diccionario geográfico-histórico de América* (1786–1789) and its selective partial translations as well as various French encyclopaedias and reviews in European journals.

We are pursuing in this perspective three main lines of enquiry. First, we will undertake a systematic analysis of the first American encyclopaedias and of French eighteenth-century encyclopaedias which translated European knowledge about America and combine this with autochthonous and indigenous knowledge as well as with locally collected data. We shall focus our attention on the explicit intertextual references and the forms of handling pivotal sources on the societies and cultures of the American continent in the encyclopaedic discourse. Furthermore, we will focus

[17] See Brown (2012, p. 38), Kaiser (2016, p. 281).

[18] Bayle (1741–1744), vol. I, "Vorrede des Herausgebers", n. p., [p. 1]. Gottsched refers in his preface to the fact that he, as editor of the translation of Bayle's dictionary, had taken on the 'supervision' of the translation, at the request of the publisher ("ich von denselben ersuchet wurde, die Aufsicht über dieselbe zu übernehmen", n. p. [p. 4]) and that he was also supposed to guarantee its quality ("gleichwohl die Gewähr für diese übernehmen sollte", n. p. [p. 5]).

on commentaries, both in the paratexts (prefaces, footnotes, etc.) and in the articles, where the authors and/or editors critically distance themselves from transmitted (European) knowledge about American cultures and societies and, at the same time, express appreciation of testimony and empirical data collection on site. Secondly, we shall outline the forms of reception and appropriation of the new discourse of knowledge about America, as found in the first American encyclopaedias, by the European 'metropolis' on the basis of the comparative analysis of the translation or of the selective use of Alcedo's *Diccionario geográfico-histórico* in geographical dictionaries from Great Britain, France and Spain. We will also examine the transatlantic reception of the first American encyclopaedias in the European public spheres, more specifically in the European press. Thirdly, we shall analyse the role and structure of transatlantic social networks and processes of cultural mediation in the making of the first American encyclopaedias.

In the second phase of the project, philological case studies will again be combined with methods of computer-assisted, systematic data collection. Intertextual references, commentaries and forms of reception will be recorded and evaluated with the help of a database. Based on this information, we will be able to give a precise overview of the transatlantic knowledge space on America as it was established in the course of the eighteenth century. We will be able to reveal the numerous textual filiations and translations, i.e. the textual network, on which this knowledge space was based and which at the same time structured it, as well as the critical discourse on knowledge about America, as it can be found in the encyclopaedias themselves and in reviews. It will be possible to trace the development of this discourse diachronically and to analyse it in terms of shifts in power relations. The data will be made available online and open access after completion of the project.

7.6 Towards a Pan-European Translation Database

Finally, we would like to present some thoughts on the idea of a pan-European translation database of the Early Modern Period which was brought up in the context of the roundtable from which the present volume has emerged. We would like our thoughts to be understood as a stimulus for discussion on this subject.

As demonstrated above, our research project focuses on various translation processes that took place in the context of encyclopaedism in the Age of Enlightenment: that means both translations that were carried out within the genre of the encyclopaedia and those which transcended genre boundaries. Even if the transnational transfer of geographical and anthropological knowledge about America brings translation in the sense of 'cultural translation' into view and intertextual filiations between encyclopaedias and other types of texts touch the area of 'inter-generic' translations (and thus the question of different, genre-specific textual procedures, etc.), the inclusion of an object in the database as such is subject to a compelling criterion: that of an interlingual translation of a concrete source text into a concrete target text.

Of course, this understanding of translation and our perspective on translation processes do not claim to be universally valid. Various lectures held at SPP 2130's annual conferences have confronted us with different conceptual understandings of translation, such as that of 'culture as translation'[19] or of travel as a practice of translation. Some research projects included in the SPP 2130 focus on forms of translation other than interlingual, examining, for instance, intermediality, the transfer and translation of geographical maps and text-image-transfers as translation processes. With regard to a universal translation database, it would have to be considered whether and how these different conceptual understandings of translation should be brought together. Which forms of translation can be meaningfully mapped in datasets at all and—not less important—how?

Data collection, systematic recording and maintenance of data require a considerable effort, especially in terms of time. From a pragmatic point of view, it is therefore necessary to reflect on what added value for research the provision of a universal translation database of the Early Modern Period would offer. What perspectives can such a database open up that might otherwise be missed? How must the database be designed, how must the potential corpus be determined, in order to allow, for example, conclusions about diachronic developments? How to make national and genre-specific aspects visible or, conversely, transnational and pan-European (or even global) developments? Should it be a matter of opening up information about textual filiations, and if so, to what extent? Which different aspects of translation should be recorded in the database? Would it also include biographical information on the translators?

For reasons of sustainability, it would undoubtedly be worth considering to what extent the results and structures of already established translation databases could feed into a pan-European database. We are thinking here of databases such as ours or other projects, such as the *Heidelberger Übersetzungsbibliographie nichtfiktionaler Texte* ('Heidelberg Bibliography of Nonfictional Texts'; *HÜB*)—a DFG-funded project which also incorporates data from two previous bibliographies of German translations in the Early Modern Period (Romance-German *Saarbrücker Übersetzungsbibliographie* and Latin-German *Saarbrücker Übersetzungsbibliographie—Latein*).[20] Perhaps a solution for the future could lie in the establishment of a meta-platform that links the above-mentioned and other German, European (and possibly global), freely accessible databases with one another, thus permitting an all-encompassing synopsis of translations in the Early Modern Period in both temporal and spatial terms, but without restricting the individual, underlying databases in their specific research perspectives.

[19] Cf. Bachmann-Medick (2006) following Bhabha (1996), Straub (2002).

[20] For further information, see https://hueb.iued.uni-heidelberg.de/en/ (Accessed: 26 January 2024) and the chapter by Weber et al. (Chap. 6).

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Chapter 8
Modelling the Radical: Insights from a Database of Revolutionary-Era Translations

Rosa Mucignat and Sanja Perovic

The very concept of a database seems to invite in many users the assumption that they will encounter a large amount of information that, if not all-encompassing, at least tends towards exhaustivity and completeness. Few digital resources foreground the fact that they are constructed by what are often small teams of fallible humans, on a tight budget, and may contain all the familiar blind spots of a research endeavour that is still ongoing and whose conclusions cannot entirely be anticipated. On the other hand, as digital data are incorporated in increasingly sophisticated ways into humanities research, building a database has become more than a mere data collecting exercise. Beyond the technical dimension, self-reflection on methods is an increasingly important element of digital hermeneutics, encompassing critical assessment of the epistemic values and challenges of data work over the whole life cycle of a research project, from selecting data and building a corpus, to establishing a research framework and analysis, and finally using and disseminating project results.[1]

The tension between a desire for exhaustivity and the compromises required of all empirical, collaborative research has deeply shaped our own work in constructing the digital database on *Radical Translations* that we will discuss here. It is perhaps due to the specific nature of our research questions that this tension has been for us not just acutely felt but also extremely productive. As will become apparent in this chapter, the *Radical Translations* project is both an excavation of little-studied revolutionary-era translations and, more ambitiously, an attempt to mobilize the data collected to illuminate some fundamental changes in translation practices as activist translators, for the first time, used translation to pursue radical political and

[1] See Berry and Fagerjord (2017, pp. 136–162).

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social goals. Consequently, rather than simply collecting all translations written in the revolutionary period, or even all translations with a political or social intent regardless of their ideological orientation, our database focuses on a selection of translations, specifically chosen for their attempt to extend ideas of radical democracy, equality, and liberty into new contexts.[2]

In its selective focus, therefore, the *Radical Translations* database differs from conventional models of translation history and other databases. First, we have sought to define a new kind of corpus that did not yet exist. There is no catalogue of revolutionary-era translations, much less a corpus of something called 'radical translations'. Rather, we created our own selection criteria in order to delimit a corpus that we hoped would make visible a historical phenomenon that we suspected was there, and about which we wanted to know more. This is increasingly unusual in the current landscape of digital humanities where researchers are encouraged to mine the enormous resource of born-digital and digitised records made available by archives, libraries, and other cultural heritage institutions, rather than invest in the time-consuming task of building a new dataset.[3] So far, we have identified, collected, and annotated just over 900 translations to and from English, French and Italian that we regard as radical interventions seeking to extend ideas of rights, freedom, equality, and democracy into new linguistic, cultural, and social contexts. As we will explain below, 'radical' for us is a question, a way to interrogate the sources, and not a label with a pre-determined value.

Second, because we wanted to bring back to life the role of translators as important political agents and brokers of revolutionary culture across linguistic and political borders, we decided to map the relations between people as well as the mobility of texts. Therefore, in addition to providing bibliographical metadata on translations and source texts, our database also includes a prosopography of some 500 revolutionary-era translators, over half of whom remain anonymous. Third, to capture the context-dependent nature of social and political translation in the convulsive years of the revolution and across three different linguistic areas, we adopted a relatively short time scale ranging from 1789 to 1815. This contrasts with some of the prevailing approaches in translation history that tend to either trace the many translations of a prominent source text over a potentially long period of time or concentrate on the influx of all kinds of texts into a target language, without discriminating for the time-sensitive aspects of a given translator's specific motivation. The *Radical Translations* database is, therefore, essentially qualitative (based on our selection criteria), relatively small-scale and highly granular. We have however found that the manageable size lets us provide very richly detailed descriptions of both translations and networks of people around them. Perhaps more

[2] *Radical Translations: The Transfer of Revolutionary Culture between Britain, France and Italy (1789–1815)*. Sanja Perovic (PI) et al. (King's College London, 2019–2023), funded by the Arts and Humanities Research Council. Available at: https://radicaltranslations.org. Accessed: 14 December 2022.

[3] See Hawkins (2022).

controversially, this granularity makes visible an element of database construction that is sometimes obscured by the positivistic tendencies of many digital projects: namely the interpretive dimension of any dataset.[4]

What follows will be an account of the discoveries we have made and the challenges we have encountered in identifying such a corpus, constructing a database and designing a suite of digital tools to read these data in a new way. Work on the digital resource has been carried out in close collaboration with King's Digital Lab, who assisted us in elaborating the data model and designing the public interface through which the data can now be accessed.[5] This collaboration has encouraged us to think critically about the intellectual contribution that digital methods can bring to our investigations and how they have altered our understanding of the *Radical Translations* endeavour as a whole.

8.1 Historical and Conceptual Framework

We embarked on constructing a database of revolutionary-era translations for two reasons: to capture the specific phenomenon of interlingual translation in the period, so crucial for understanding the mobility of revolutionary language, and because we felt translation could provide a powerful lens through which to study the more general question of how a new revolutionary culture came to be created within a transnational context. The French Revolution has long been recognized as an event whose origins, development, and repercussions reached far beyond the hexagon. But besides its geopolitical impact, it was also a key moment in the formation of a shared radical culture in Europe, one that endured despite significant failures and repression and eventually inspired other revolutionary struggles throughout the nineteenth century. Studying the role of translation affords an empirical entry point into this still ill-defined process of cultural transfer. Because revolutionary ideas were highly mobile, multidirectional, and often expressed through unstable vocabularies and forms, this process has not been easy to track with any one method, be it intellectual, book, literary/linguistic or social history. On the one hand, the historical protagonists eagerly translated, adapted, and adopted for themselves terms, ideas, and even constitutions that had originated elsewhere, precisely because revolution was a radically new phenomenon, without clear precedents. On the other hand, under the paradigm of national self-affirmation, there has been a tendency within the historiography to reduce the richness of such political and linguistic inter-crossings to a relation between original and copy, core and periphery. By tracking translations across three languages (Italian, French, English) and in five political contexts

[4] Johanna Drucker's call to reconceive all 'data' as 'capta' is a useful reminder of this, see Drucker (2011).

[5] For an account of the design process, focused particularly on the use of visualisations, see Ciula et al. (2021).

(Britain, France, Italy, Ireland, and America), we seek to recover the polycentric movement of both people and texts in this period when in many parts of Europe, and indeed the world, the meaning of a nation state was not yet clearly defined.

The project operates with a broad understanding of translation that includes published translations, self-translations, pseudo-translations (that is, original writing presented as translation), as well as unpublished or projected translations, recoverable from newspapers, publishers' prospectuses, and personal correspondence. We are especially interested in how paratexts (prefaces, addenda, titles, dedications) function as compact forms of communication, expressing political and social aims. In literary criticism, paratext is defined as material that surrounds the text. It is here that the translator's voice can be heard, and evidence gleaned as to why and how a particular text was translated at a particular time. Our bibliography of translations includes separate records for paratexts, which are extensively annotated. As noted above, the project also illuminates the lives of some 500 translators. These range from well-known revolutionaries who translated, to lesser-known activists, to anonymous or pseudonymous translators whose lives are barely known at all. Some are professional translators; others translated only on occasion. What unites them all is the way they use translation to extend radical ideas of liberty and equality into new contexts. In putting translation at the centre of revolutionary lives, we also seek to recover translation as a political and social event. How did these translators use translation to respond to a changing political landscape, marked simultaneously by new opportunities and new modes of repression? To answer such questions, we have constructed ad-hoc chronologies in the three linguistic contexts that foreground events at the intersection of translation activity, political radicalism and publishing history.[6]

8.2 The *Radical Translations* Data Model

As noted above, the *Radical Translations* digital resource does not reproduce a pre-existing analogue archive or catalogue, but constitutes a new, handpicked corpus of texts that we have collected to answer our research questions. Because we have, in a sense, created our own object of study, we want to highlight the procedures we used to model the data, so as to open the resource to other researchers. Our starting point was basic. We defined as radical any translation that sought to extend revolutionary rights, freedoms and notions of democratic participation into new contexts in order to reach new publics. These new contexts could be linguistic and geographical as well as political or social (such as the case of translations that sought to cross boundaries of class, gender or race). To begin with, we relied on existing historiography, which has tended to define radicalism as a social movement that includes some, but not necessarily all, of the following attributes: egalitarianism,

[6]For a fuller account of the project's intellectual framework see Perovic (2021).

anti-clericalism, republicanism, democratising impulses, emphasis on self-determination. We opted for a loose formulation in the spirit of Anthony Pym's "working definitions" which he argues should be "as blind as possible, incorporating an element of conscious heresy or irrationality into their carefully verbalized form".[7] The relative bluntness of our initial definition has, we hope, prevented us from pre-determining our own results and made constructing the database an open-ended, heuristic process.

We began selecting material using lists that we drew up based on our existing knowledge of the period: of prominent revolutionaries who also translated (e.g., Mirabeau, François-Xavier Lanthenas, Francesco Saverio Salfi), radical texts (many from the radical Enlightenment) as well as important publishers, literary journals, newspapers and records associated with radical circles. A major challenge of this project has been to recover this rich vein of revolutionary translations, often inserted without attribution in newspapers and other ephemeral media, and not registered in standard library catalogues. This has affected different areas of our research in varying degrees, depending on the national organisation of analogue archives and their respective politics of digitization in different countries. The Italian analogue landscape of bibliographic resources relevant for the project reflects the variety and fragmentation of political entities that have characterized Italian history. This means that sources are widely spread in different archives located in different cities and consequently exist in separate, smaller digital repositories, or have not yet been digitised at all. Although this is now rapidly changing, the prevalence of smaller local archives in the Italian context has made it more difficult to develop 'mass' digitization programmes at a regional or national scale.[8] In comparison, French and English sources were more easily traceable via the respective national libraries and their digital catalogues (e.g. *Gallica* and the British Library). And while Google's own digitisation project has been a boon, it is also unsystematic, capturing some texts and editions and not others, and lacks reliable metadata. This has been frustrating at times, especially given this project's focus on retranslations and re-editions as important elements for tracking how revolutionary language travelled and where it went.

Generally speaking, the material in our database is identified by the intersection between our particular selection criteria and the material accessible to us in digital and analogue formats. More specifically, as we built the database, we quickly became aware that we were dealing with two broad categories of texts. On the one hand, we had identified a core set of overtly radical translations, where either the source text or the translator, or both, were perceived as radical at the time and since. In such cases we wanted to record more detailed and reliable information about *when* and *where* the translation took place to understand *how* and *why* a given source text was translated. On the other hand, we had also uncovered an outer rim of less

[7] Pym (1998, p. 65).

[8] A new nation-wide programme of digitization has been launched in 2019 by the Italian Ministry of Culture: https://digitallibrary.cultura.gov.it/. Accessed: 15 December 2022.

obvious cases, for instance when the source text has no recognizable radical content, but whose latent radical meanings were brought out through the act of translation. For example, Cesare Paribelli translated Étienne de La Boetie's 1577 *Traité de la servitude,* by this time already a classic, during his imprisonment in Naples in 1798 when expressing revolutionary sympathies directly would have been impossible.[9] Another such case is Angelica Bazzoni's 1797 translation of an education treatise by Jean-Gervais Labène, a member of the Institut de France and a moderate figure in the context of the French Revolution. This translation, by an otherwise unknown figure, becomes a radical intervention through her dedication to the "popolo sovrano" ('sovereign people') and because Bazzoni signs herself as "cittadina italiana" at time when an Italian republic did not yet exist, much less anything resembling an 'Italian female citizen'.[10] Such conspicuous republicanism sets Bazzoni apart from many other women translators in our database, who tend to use translation more covertly as a means of expressing sympathy with revolutionary ideas where explicit declarations were not possible. Consider for instance Harriet Augusta Freeman, also known as 'la Citoyenne Freeman, patriote anglaise', who retranslated Louis-Sebastien Mercier's pre-revolutionary utopian novel *L'An 2440* in 1797, under the title *Astraea's Return or the Halcyon Days of France in 2440: A Dream.* Or the second English translation of Bernardin de Saint-Pierre's pastoral *Paul et Virginie*, by Charlotte Barrett, niece of Fanny Burney, whose extended title references an heroic enslaved man and his "cruel master"—a clear nod to abolitionist discourse.[11]

As the examples of Bazzoni and Barrett suggest, the paratext of translations is an extremely valuable source of information about revolutionary motivations, as we describe in more detail below. But to capture how these translations and paratexts responded to a highly volatile and fast-moving situation, we quickly realised that simply recording bibliographical and biographical information did not suffice. Instead, our database needed to place information in the context of a rapidly moving political situation that could illuminate how translation was also conditioned by different degrees of revolutionary opening or closure, at different times. To achieve this, our data-model needed to facilitate cross-referencing between four distinct datasets: texts, people, events, and places. This was especially important with fragments of translations published in newspapers and the ephemeral press, a crucial part of revolutionary communication that also had to find a place in our database.

In the *Radical Translations* database, 'Resources' contain bibliographical records of source texts, translations and separate records for paratexts. We do not provide full-text digital editions at this stage but have included URLs of existing online repositories such as *Gallica* and Google Books whenever possible. Information

[9] Conte 2013. See Paribelli's translation on our database: https://radicaltranslations.org/database/resources/3644/. Accessed: 14 December 2022.

[10] Labène (1797). See record on our database: https://radicaltranslations.org/database/resources/3286/. Transl. R.M. Accessed: 14 December 2022.

[11] Mercier (1797), Bernardin de Saint-Pierre (1800).

about persons and organizations are found under 'Agents', and the 'Timeline' is a tool to visualize and more importantly correlate the links between translations, their source texts and a typology of historical and political events chosen specifically for their relevance to *both* the history of political radicalism and translation. In this initial phase of database design, we had to navigate several competing imperatives which seems to us to beset digital humanities projects more generally. Our foremost concern was producing a well-curated and intellectually coherent critical tool that would help us test our own research hypotheses about how radical ideas travel. Paradoxically, and despite our broad initial definition of 'radical', we had to agree as a team to rigorously apply stringent criteria for inclusion based on highly nuanced and interpretive understandings of context. This working practice quickly grew into a rather elaborate process, taking over many a team meeting, as we debated who and what had to be excluded to maintain the intellectual coherence of our database. Despite its frustrations, we did not think this process was a waste of precious funded time. On the contrary, the act of excluding 'non-radical' people and texts taught us as much about radicalism and translation in the period as did the writings of the happy few who made the cut. The collaborative nature of any database project, combined with the categorical nature of computing, forced us to be more explicit and normative about our concepts than humanities scholars tend to be. We found ourselves in the unfamiliar context of shifting from an interpretation-based mode of analysis to a decision-based, operational mode of action.

At the same time as questioning our own identities as researchers, we also felt the pressure of any publicly funded digital humanities projects, which is to produce a resource useable by any number of scholars and members of the public who would bring to it their own queries and agendas. We were acutely aware that our definition of radical translation would not necessarily resonate with a larger community of scholars or a more general public, who might reasonably expect a broader or more ecumenical treatment of either translation activity or the history of this period. One problem we anticipated is that users would tend to interrogate the database for information on specific individuals and be surprised not to find an exhaustive list of all publications or networks associated with them. Whereas such users might expect the database to function in a manner akin to entries in a library catalogue, what we offer instead is a richly annotated, granular exploration of a more specific phenomenon, namely 'radical translation' as a new practice within translation history and part of a transnational political movement.

The resource now publicly available is the result of a compromise between facets designed for specialized use by the research team and those designed with a view to making the database exploitable for external users within and beyond academia, who might interrogate the data differently. Hence, our initial focus on acts of translation and the paratext of translations was complemented by additional information about peoples' social status (i.e. if they had been born noble) and occupation (e.g. politician, playwright), and fuller records reconstructing the publication history of translated texts. It is worth noting here the high frequency of re-translation in the revolutionary period (108 of our resources are labelled as 're-translations' in the database), and also the importance of new editions and re-issues in the circulation,

geographic reach and reception of texts—all vital aspects for reconstituting what can be called a revolutionary public sphere. All these aspects taken together alert us to the 'staying power' of a given translation and the different contexts in which it might have been presented and put to use.

Interestingly, the Janus-faced nature of the *Radical Translations* database, which looks both inward at the research team as well as outward toward a broader pool of users, has helped us navigate another tension that besets many digital humanities projects, namely the need to reduce complexity within datasets to enable more effective modelling, and the inevitable loss of contextual detail this entails. We started with a maximalist approach to metadata—seeking to capture and describe in as much detail as possible all elements of a given translation—but were encouraged by King's Digital Lab to whittle down our controlled vocabularies. We used a combination of the Library of Congress Subject Headings (LCSH) and our own classification terms for 'Resources' and the Virtual International Authority File (VIAF) and Wikidata for 'Agents'.[12] Our initial list ran to 52 terms for genre/form and 62 for subject/topic which we eventually reduced to 36 and 31 respectively, reflecting our realisation that an (acceptable) reduction in detail represents a potential gain in comparability and processability. If data are not aggregated in substantial enough groupings, it becomes hard to interpret them as a whole, and the dataset breaks down into an unwieldy mass of individual entries, which utterly defies the purpose of constructing a digital resource.

However, our metadata is still very rich. For example, in the case of translations, we preserved genre terms such as 'almanacs' and 'broadsides' that are used for three or fewer items. But why retain something resembling 'a category of one'? Our answer is twofold. These genre terms were initially included based on our knowledge of the predominant genres and forms of revolutionary source texts, and because we anticipated to find many more examples of them in translation. What we found instead is that radicalism in translation has its own preferences for genres and does not always conform to what we already think we know about revolutionary print culture. Retaining such terms, even if not entirely useful as a classification device, facilitates, to an almost destabilising extent, questions about what is *not* contained in the data. In this case, the fact that we did not document as many almanacs and broadsides as we expected might mean that these productions tended to be produced for a local audience and were rarely translated (in which case there would be none to find); but it might also reveal a gap in the dataset that sends us back to the library or archive to search in a more targeted way. We have found it productive to think of the data modelling process as a dynamic interrelation of, on the one hand, our research hypotheses, previous knowledge, blinds spots and so on, and, on the other hand the standardisation and selection inherent in 'datafication'. Being upfront about the iterative loops of self-reflexivity triggered by the process of

[12] For LCSH see https://www.loc.gov/aba/publications/FreeLCSH/freelcsh.html; VIAF is available at https://viaf.org/; and Wikidata at https://www.Wikidata.org/wiki/Wikidata:Main_Page. Accessed: 14 December 2022.

data selection—for instance, was the essay really the dominant form of radical writing? Is 'essay' the right term to describe over 660 texts in our corpus?—is the best way we have found to manage, if not eliminate, uncertainty.

If the average duration of a revolutionary newspaper was a few months, we also were acutely aware that our own database would not last forever. To maximise the lifespan of our database beyond the funded period, we had to future-proof it as much as possible, for example by ensuring that it could potentially link up with other similar endeavours in a horizontal networked database of translations in the European languages, such as the one envisaged by the editors of this volume, or even by being ingested into larger platforms where our own thematic criteria would dissolve. To facilitate this, we were advised to adopt what is currently the international standard for bibliographical information: the Library of Congress' Bibliographic Framework Initiative (BIBFRAME).[13] This is a flexible model but one designed with modern publishing in mind and, thus, had to be somewhat bent to describe eighteenth-century publication practices, while stopping short of 'abusing' its categories.

An example of such 'bending' concerns the category 'publisher'. Today, we generally consider publishers to be organisations rather than individual enterprises, but that was far from being the case in Europe in the 1790s. One of the largest and most important publishing houses in Paris during the Revolution was owned by François Buisson (1753–1814), who was close to the Cercle Social and printed Jacques-Pierre Brissot's *Patriote françoise* newspaper. Buisson was both a printer and a bookseller, as was common in the period, but he also commissioned writers and translators directly and sometimes penned short prefaces to the works he published. He was responsible for bringing out Soulès' translation of the first part of Thomas Paine's *Rights of Man* in May 1791, which had been orchestrated by Brissot and Lanthenas. Buisson's 1793 edition of Paine's collected works opens with a self-promoting "avis du libraire" where he boasts of his personal connection to Paine, and the role of the translations he commissioned in furthering the cause of liberty.[14] Had we recorded Buisson as an 'Organisation' in line with BIBFRAME conventions, we could not have accounted for his "avis" or his relations to Brissot, Lanthenas, and Paine (organisations cannot author resources or be linked to other agents via 'knows' relations in BIBFRAME). Therefore, we had to make him and other figures of printers-booksellers-editors 'Persons' rather than 'Organisations'. This proved to be another serendipitous choice because it was a constant reminder that publishers were persons with their own connections and motivations, and were often at the centre of radical networks of sociability that linked translators, authors, and activists in Paris, London, Milan and many other cities. To highlight this vital aspect of revolutionary communication we relied on other resources, notably the

[13] See Library of Congress (2012).

[14] Buisson (1793). Database record: https://radicaltranslations.org/database/resources/3528/. Accessed: 14 December 2022.

CERL Thesaurus and Wikidata, as well as reflections of scholars engaged in similar attempts to map early modern publication networks.[15]

At a higher level of abstraction, a further complication was presented by the BIBFRAME distinction between 'Work' and 'Instance'. BIBFRAME uses three core classes for bibliographical description: 'Work' reflects the conceptual essence of the content being catalogued (information on authors, languages, and subject matter are related to this class); 'Instance' is the physical embodiment of the work (includes information like publisher, place and date of publication and format); and 'Item' represents the actual copy of an instance (with attendant information about location, shelf mark etc.). Given this structure, we had to decide how to express the relationship between source text and translation. The 'translation of' relation in BIBFRAME is a sub-property of 'derivative of', a logic we could not modify even if it runs counter to our context-oriented approach and our desire to foreground the agency of translators and the way in which texts are manipulated and repurposed through the translation process. The question remained, however, of whether the entities to be connected through such misguided but unalterable relation were to be 'Works' or 'Instances'. This quickly escalated into metaphysics: are the text and its translation(s) imminences of the same ideal 'Work'? Or is translation a lesser incarnation, a copy, of a remote and higher Platonic form? Are source text and translation not better understood as two altogether distinct, although related, 'Works'? We felt the database was not the place to address, let alone solve, such conundrums, and were relieved to accept the drastic solution proposed by colleagues in King's Digital Lab of flattening the BIBFRAME hierarchy. Every bibliographical object, be it a source text, translation, or paratext attached to a translation (more on which below), is classed as a 'Resource' in the database backend as well as on the public-facing website. This means that any work-, instance-, or item-level property can be associated to any resource, regardless of where it would sit in the BIBFRAME class system. This facilitated the editorial work of inputting data and was more consistent with both our dynamic model of textuality and our plan to construct a database of translations, where the focus would be on the translating process and its context more than on the relationship between source and target text.

Perhaps the most formidable challenge on a conceptual level has been to control the structure and scope of the database in a way that did not foreclose the outcome of our investigations, or, put differently, to reduce as much as possible the threat of introducing confirmation bias into our data. This is indeed one of the "aporias" identified by a recent EU-funded survey into the "gulfs in epistemic culture" between the creators of digital tools and humanities scholars that "lie [ ] at the heart of the challenge of the digital humanities".[16] The risk is especially high for a project such as *Radical Translations*, which deals with ideas, words and events whose meaning is still contested. Not only do we focus on translators and texts that,

[15] Especially the essays collected in Hotson and Wallnig (2019). The *CERL Thesaurus* is available at https://data.cerl.org/thesaurus/_search. Accessed: 14 December 2022.

[16] Edmond and Lehmann (2021, pp. 96, 97).

in many cases, make no attempt to disguise their partiality and commitment to radical politics, but our decision to focus exclusively on pro-revolutionary texts can, in itself, be considered a one-sided approach to the history of this period. Of course, translation was never the monopoly of radicals, and protagonists on all sides of the political spectrum also operated within transnational contexts. What is specific about this database, however, is that it offers tools to track the creation and mobility of an unprecedented revolutionary language, not only looking at what it says, but also at where it went and what it became. A look at the subject distribution on the *Radical Translations* database reveals that this language was formulated around a rather coherent, and in many ways unsurprising, set of themes: 322 texts discuss 'human rights' (with a further 28 tackling specifically 'women's rights'); 172 advance 'anti-clericalism'; and 146 are about 'republicanism'.

Given the relative ideological coherence of our material, the software developers and designers at King's Digital Lab were surprised that a project on 'radical translations' did not feature the term 'radical' anywhere in its authority lists. They advised us to make our rationale explicit for external users. What makes a translation radical? And are all texts in our corpus 'radical' in the same way? We tested a solution whereby any aspect of a resource's metadata (author, date, source text, paratext, subject, form) could be tagged as 'radical'—the label appearing on the website as a fetching Phrygian cap next to the radical element. We were initially attracted to this way of visualising which aspects of the translated text constituted a radical contribution because we wanted to be clear that radicalism was not a monolithic category for us. For example, when Edme Joseph Villetard, a young diplomat who served in Italy under the Directory, translated Vittorio Alfieri's poem "Alla libertà" (To Liberty) into French, he was signalling his protest against Napoleon's rule, which had betrayed the hopes of the Italian patriots for independence. There are three 'radical' elements relevant here: the choice of source text (or even of source language); the date, because translating this same text at an earlier stage of the revolution would have meant something entirely different, for instance, it would have resonated fully with the republican mission of 'liberating' Europe from the yoke of tyrants; and the paratext, which takes the form of a short accompanying letter where Villetard invites his readers to set aside national pride and recognize 'the mistakes France made in the process of conquering her liberty'.[17] The idea of assigning caps was eventually abandoned, because it risked conveying the simplistic idea that a high number of radical markers automatically signifies greater radicalism. Such crude 'rating' mechanisms could lead to absurdity: for instance, deeply subversive enterprises such as Italian catechisms adapting materialist and anti-religious texts of the French Enlightenment for a popular audience, which were generally anonymous and appeared with minimal paratext, would appear in our database as less radical than, say, Villetard's poetic translation only because they would contain

[17] Alfieri (1804). Database record: https://radicaltranslations.org/database/resources/4489/. Accessed: 14 December 2022.

fewer radical markers on their metadata.[18] As such segmenting and 'counting' of attributes appeared to obscure rather than illuminate, we looked for an alternative way of modelling radicalism, one that would locate more precisely the act of translation in its historical and political context, as well as say something about the intentions of the men and women involved in its production.

8.3 The Paratext as Source

As mentioned above, one innovative aspect of the *Radical Translations* database is the prominence accorded to the paratext. We have produced separate records for the paratext of translations and have sought to provide a thick description of its forms and functions. Genette famously described it as a threshold between the text and what lies outside it.[19] This threshold, made up of heterogenous materials and diverse authorship, 'presents' the text both in the sense of packaging it for its readers and of making it present, that is, creating or reinforcing its links to the world of the reader. Thus, paratextual messages such as title, the name of the author and, in the case of translated texts, of the translator, are for Genette "the privileged sites of a pragmatics and of a strategy, of an action on the public".[20] Beyond Genette, Translation Studies scholars increasingly recognize the paratext as an important source to better understand the communicative situation in which the translation is produced, as well as shed light on the translator's motivations.[21] The revolutionary-era translations we have documented offer rich and often intricate source material to interpret paratext functions from both a Translation Studies and socio-historical angle. Functionalist approaches such as skopos theory emphasize how translated texts have to work in the target situation for which they are produced by serving the purposes they are intended for (which may or may not align with those of the source text), especially where there are large gaps or asymmetries between source and target cultures.[22] While radical translators frequently express a desire to be faithful to their source text, their translation acts are best understood as attempts to carry the text forward towards new audiences, to make an intervention in their present and future, rather than reflecting back on a revered original. Adapting Mona Baker's theory of translation as narrative, we consider paratext as the location where "framing" happens.[23] This act of framing is particularly relevant when 'translating the revolution', which required translators to bridge vast gulfs between the source context and the political

[18] D'Alembert et al. (1797). Database record: https://radicaltranslations.org/database/resources/5106/. Accessed 14 December 2022.

[19] Genette (1991, pp. 1–2).

[20] Genette (1991, p. 261).

[21] Hermans (1996) and Batchelor (2018) are influential examples.

[22] For an overview see Nord (1997).

[23] Baker (2006, pp. 105–111).

experiences, knowledge, values, and beliefs of their public, as well as power imbalances. For instance, in prefaces to their translations from the French, Italian patriots often remark on the distance the Italian people still had to travel towards their 'regeneration' before they could catch up with France, while at the same time refusing to see themselves as subordinate to their French allies.

To make the paratext one of our privileged objects of analysis, we had to adapt the BIBFRAME model. Separate records were created for paratextual material, and linked to the translation they accompanied through the 'paratext of' relation (a sub-property of 'related of' that we added to the BIBFRAME vocabulary). Treating the paratext as a separate 'Resource' was necessary because it gave us the option of assigning it to an author other than the translator, for example in cases of prefaces, notes, and appendixes written by publishers, editors, or other contributors. Having established that the paratext is often the place where power dynamics are negotiated and exposed, we had to find a way to 'measure' or at least account for the intentions of translators, and to a lesser extent publishers and other agents who left their trace in the paratext. To capture this, we have labelled all the paratexts in our database, as expressing one or more of the following four paratext functions, adapted from the works of Amy Nottingham-Martin on transmedia storytelling and Kathryn Batchelor on translations and paratext.[24] These are

- Meta-communicative: reflects on the constraints and conditions of communication
- Community-building: references groups of imaginary or actual readers
- Hermeneutical: presents an in-depth commentary and interpretation of a source text
- Text-activating: acts to remove obstacles to understanding through clarifying political or culturally specific references

In paratextual material we have categorised as 'meta-communicative', translators or publishers often comment on the format chosen for the translation (e.g. prose, verse), make excuses for translations produced in haste, state their admiration for the source text or complain about its obscurity. Gaetano Cioni's translation of Villetard's play *Phocion* is a good example of a very close relationship between author of the source text and translator. Cioni writes warmly of Villetard, considering him an equal and an ally:

> I have completed my translation, certain that you will be pleased to see your tragedy rendered into Italian, since upon publication you dedicated it to the Italians, which clearly demonstrates your love for them. This makes me even more proud to be Italian. My only regret is that you're in Paris and I'm in Milan so you won't be able to read my version and I won't be able to hear your opinion, which I highly value as that of a great connoisseur of our language and of the style of Italian tragedy.[25]

[24] See Nottingham-Martin (2014), Batchelor (2018).

[25] Cioni (1798). Database record: https://radicaltranslations.org/database/resources/4303/. Accessed: 14 December 2022. All translations from the Italian are by Rosa Mucignat.

'Community-building' paratexts typically use translation to foster a sense of belonging and unity, often addressing an ideal community of readers that might not yet exist in reality. An example of this is the anonymous translation, signed only with the initials N.B., of a pamphlet by Marc-Antoine Jullien, a former protégé of Robespierre who was briefly involved in Babeuf's conspiracy. The *Appel* is a 'coded' message to both French and Italian radicals, urging them to cooperate with Bonaparte to preserve the republican status quo. It was promptly translated into Italian as the Consulte de Lyon were taking place, where Napoleon made himself the president of the Italian Republic. The translator strikes a defiant note by addressing his preface to 'the free Italians' (obviously a utopian construct in the circumstances) and proposing radical plans for the republic he still hoped to see established.[26]

The 'hermeneutical' function describes paratexts that can, on occasion, be longer than the translated text itself and develop extended reflections on questions raised by the source text or even take the form of self-standing essays. This is commonly the case with high-profile translators such as Salfi, mostly known as a playwright and man of the theatre. In the Cisalpine Republic, he was active in the organization of the new patriotic theatres, for which he produced several translations from the French, including of Marie-Joseph Chénier's *Fénelon.* To the print edition of 1801 he added a substantial essay on the purpose of theatre, where he developed his vision of republican drama and the creation of a new national theatre in Italy. Salfi offers a lucid evaluation of Chénier's works in the context of the convulsive early years of the French Revolution and reflects more in general on the opportunities and challenges of political theatre, arguing that:

> I translated [Chénier's plays] to give the revolutionized parts of Italy plays that are suitable to the circumstances and capable of instilling in people, if not refinement of taste, then some principles that will strengthen their commitment to democracy—a word they abhor only because they ignore its meaning.[27]

'Text-activating' is used to describe instances where translators make a case for the relevance of the source text they are translating for real-life circumstances. Gaspare Sauli was a Genoese nobleman who turned revolutionary when France became a republic and became a prominent journalist under the new Ligurian Republic supported by the French. His translation of Denis Diderot's novel *La religieuse*, which tells the story of a captive nun, is prefaced by a remarkable address 'to young girls who've just turned fourteen' inciting them to use the book as their defence: 'If your parents or your confessor tell you that you should become a nun, arm yourself with persistence and counter their baleful advice with the example of Sister Suzanne. Tell them: when nature made me, it did not intend me to lead a useless life'.[28]

[26] N.B. (1801). Database record: https://radicaltranslations.org/database/resources/5077/. Accessed: 14 December 2022.

[27] Salfi (1801). Database record: https://radicaltranslations.org/database/resources/3273/. Accessed: 14 December 2022.

[28] Sauli (1797, p. 6). Database record: https://radicaltranslations.org/database/resources/5209/. Accessed: 14 December 2022.

Paratext is where translators negotiate cultural transfer in their own terms, in the cases above, resisting French patronage but welcoming ideas of the French Revolution. The relatively simplistic labels for the four functions make it possible to analyse patterns that occur across our corpus even if any paratext can fulfil more than one function. They can also be plotted on a timeline and serve as heuristic tools that allow users to develop their own hypotheses, including for example questions concerning why and where a certain function might dominate, whether there was an increased intensity of certain kinds of framing around specific events, and which types of source texts required greater or lesser explication in the target language.

8.4 The People Dataset

If our corpus was constituted in a conceptually 'top-down' manner, our prosopography addresses this question of translation choices and motivations from the 'bottom up', in relation to people, their networks, the organisations to which they belonged and/or their patterns of movement. Prosopography can be defined as the investigation of the common characteristics of a group of people whose individual biographies may be largely untraceable or only indirectly known. It can also be used as an "indirect means of research" to understand the shape of ideas (be they philosophical, political, scientific or other) that do not always have an identifiable source (for example, prosopography has been used to study humanism, the Enlightenment and mesmerism).[29] While the intentions of long-dead people can never be fully recovered, prosopography can be used to reconstruct the activities and motivations of historical actors when it comes to their behaviour as part of a social group, and, in the case of our own project, also political movements that do not have a centralised structure. As Bruno Belhoste and David Armando observe, prosopography is especially effective when it comes to reconstructing "pluralistic movements" that contain numerous agents that cross many social domains, not all of whom are equally engaged or engaged in the same manner.[30]

In our database we use prosopography primarily to understand the lives of revolutionaries who may have either frequently or sporadically used translation as a means of political communication. In some cases, biographies and translation activities are well documented. Other lives may only exist in the records as pseudonyms or initials on texts, or even only as traces in archival sources. Out of the c. 500 translators in our database, over half remain anonymous. One of the chief tasks we faced, therefore, was to find a way to link anonymous texts to known translators and vice versa. For instance, whenever we found mentioned the name of a translator who moved in radical circles but whose works did not yet feature in our bibliography this prompted us to look for other works, a task especially important, say, for identifying

[29] For a good discussion see Verboven et al. (2007).

[30] Armando and Belhoste (2018, p. 15).

the authors of the large quantity of unattributed translations published in newspapers and other ephemeral media. By the same token, linking translators to radical printers or other networks, for example through the aforementioned *CERL Thesaurus*, enabled us to shed light on anonymous, pseudonymous or uncertain attributions.

Traditional prosopographies tend to rely on extant registers or some other historical document as the basis for establishing a social group that is typically assumed to be well-defined. Our database on the contrary aims to highlight translation as a social and political activity that criss-crossed multiple social identities. Moreover, we tended to focus on self-motivated translations over those commissioned by a state entity because here the translator's own choices are most revelatory. For instance, even if Giovanni Labus, the Italian translator of Paine's *Rights of Man* may not have known Lanthenas, Paine's French translator, they may have shared similar networks which we could then uncover using further research. In cases where such knowledge is still lacking, information concerning social networks still makes it possible to develop a way of reading the Italian translation of Paine—be it formally, lexically or narratively—to see how the translator may have inserted himself within a related kind of 'imagined community' that may include Lanthenas and Paine himself.[31]

That said, some organisations did play an important in our database. In addition to printers and booksellers briefly discussed above, newspapers and political associations are examples of organisations that feature in our database. Our database also highlights a number of key cities that served as important 'contact zones' where translators may also have lived and met as exiles, diplomats, refugees or even prisoners, ranging from important centres such as Milan, Paris, and London, to border areas that became strategic during the Revolutionary Wars such as Oneglia, in the Italian region of Liguria, or more provincial towns such as Newcastle and Norwich. But here we faced another challenge, namely how to capture the wide variety of lives and people's movements within the inherent limitations of machine-readable records. For extensively documented individuals with highly eventful lives and shifting allegiances, we had to decide which events to privilege. For people about whom we know very little or next to nothing at all, the challenge was to find a way to register even these scraps of information. In the end we kept our records as simple as possible in order to build them incrementally in some future iteration of the project. Each biographical record therefore includes static attributes (dates, places of birth) but also acquired or life-attributes: languages spoken, date of death, main place of residence and other important places of residences, the organisations to which they belonged and the people they knew. We provided links to VIAF and Wikidata, where they existed. Key obstacles to overcome here included dealing with multiple spellings of names, the problem of how to attribute pseudonyms (in some cases, several for one person) and pen-names. This evidently labour-intensive process of trying to construct records of more or less comparable length for a highly diverse

[31] See the entries for Labus, Lanthenas, and Paine on the *Radical Translations* database.

group of people also raises questions of how prosopography, while differing from network analysis, can overlap with and support it.

On a practical level, social networks are mainly mapped in our database through the relational vector 'knows', taken from the FOAF (friend of a friend) model, which links agents to each other.[32] The 'knows' relation is a blunt instrument that does not differentiate degrees of intimacy or specify the nature of a relationship: relations of kinship or marriage are on the same level as professional connections or epistolary correspondence. As only agents who are involved in the production of radical translations are included in our database, the resulting network is necessarily skewed and does not fully reflect the social world of late eighteenth- and nineteenth-century revolutionary movements as it was lived or experienced or, indeed, more fulsomely described by a rich historiographical tradition. Nevertheless, and precisely on account of this selection bias, our translation networks have the potential to reveal elements of revolutionary cultural practice that often go unnoticed or are subsumed into other, more established paradigms that have largely been developed in hindsight and at times at great historical distance (e.g,. the 'Radical Enlightenment' or the 'Atlantic World'). Unlike other cultural networks that have been extensively mapped by generations of scholars, the connections we illuminate define a space where translation creates and supports networks of political solidarity across linguistic and national borders, even in times of war or political repression, when transnational commitments are otherwise severely tested. Crucially, our database enables users to reconstruct how a revolutionary culture and idiom was created in its own historical moment, thus providing a rich resource for a 'history of the present.'

8.5 The Time Variable

Translation happens not only between languages and cultures and across the political spectrum but also between two points in time. This asynchrony is particularly important when it comes to the revolutionary period, often described as a moment when history accelerates, time moves faster, and the *corsi* and *ricorsi* that characterise human affairs and political destinies happen at breakneck speed. This brings us finally to the last element of the *Radical Translations* database, namely its treatments of events. To capture the 'entangled history' of revolutionary-era translations and their translators, we devised a digital chronology that allows users to correlate the publication dates of translations to specific events (e.g. censorship or military repression) in order to understand how translation itself could become a vehicle for political or cultural action, when other avenues are closed off or fail to materialise.

[32] The FOAF vocabulary is available at http://purl.org/vocab/relationship. Accessed: 14 December 2022.

To visualise this time-aspect, we had to devise bespoke chronologies that featured events relevant to *both* translation history *and* the history of radicalism. To put this in digital humanities parlance, we had to devise a typology of "eventful events", "events that make a difference"[33] to our understanding of how translation history and the history of revolutionary movements interact and relate to each other. Furthermore, given our transnational context, it was not enough to simply lift ready-made chronologies or list different national chronologies side by side. Instead, we had to provide users with the means to map chronologies against each other—a crucial aspect for understanding how different revolutionary movements and groups, operating in different linguistic, cultural and political contexts, might enter and exit the revolutionary process at different times. To give some examples, the Constitution of Year II was translated into Italian during the republican triennium (1796–1799), after it was censored in France. During the brief moment of freedom after the French returned in 1800–1801, even fragments of Robespierre and Saint-Just's speeches appeared in Italian translation at a time when they were considered anathema in their homeland. Another example is Helen Maria Williams, who included in her *Sketches of the State of Manners and Opinions in the French Republic* (1801) Amodio Ricciardi's memoir of the fall of the Neapolitan republic—a searing indictment of the role played by the British.[34] This 'smuggled' text was cited as a key motivation by Sophie Grandchamp who translated Williams' text into French in 'friendship and in haste'.[35]

On our timelines, translations and sources are plotted on the same timeline, arranged by place and year of publication. Users can thus correlate metadata about texts to political, military and other relevant historical events. We invite users to draw their own conclusions on how translation activity is associated with a specific political *Stimmung* or climate. This can enable researchers to assess the specific value and intensity of a given text's radicalism, according to whether it appears within a radical moment or during a phase of reaction. Through this kind of temporal indexing, users can engage in a "narrative-based discovery".[36] Indeed they can go further, utilising our chronologies to construct their own histories of translation and/or radicalism. Researchers with an interest in a particular event can use our timelines to correlate it to other moments in the political history of revolution in the same or other areas, and/or explore the kinds of translation activities that were ongoing at that point in time in our three target languages. They can also use our chronologies as an ad hoc tool for contextualising their own case studies of either texts, events or people.

[33] Dunn and Schumacher (2016).

[34] Williams (1801). Database record: https://radicaltranslations.org/database/resources/3486/. Accessed: 14 December 2022.

[35] See record for this resource on the database: https://radicaltranslations.org/database/resources/3486/. Accessed: 14 December 2022.

[36] Jeffries et al. (2019, p. 169).

8.6 Concluding Remarks

As a research project, *Radical Translations* builds upon a growing transnational historiography of the revolutionary period in order to increase the visibility of translation within revolutionary culture as a whole, with the ultimate aim of redefining how radicalism was experienced and communicated in practice. Insofar as it takes the form of a database, however, this project also seeks to model, and thus capture as abstractable data, specific aspects of this translational practice including translation forms and paratext functions, the genres and subject-matter of source texts, the professional and political roles of the key protagonists and the events that marked their translation choices and publications. In contrast to some big data projects, our database is small-scale and does not rely on pre-existing datasets. While from some perspectives, this can be considered a weakness, in our point of view it provided us with a greater conceptual clarity about what constitutes a coherent corpus, thereby also enabling us to retain a more nuanced and richer picture of the historical context in which these translations were produced. In this respect, the possibility to flex the data model and annotate records in considerable detail mitigated some of the problems of constructing a multilingual database within the predominantly anglophone (and 'presentist') terminology of BIBFRAME, Wikidata, and other standard vocabularies. Last, but not least, in its highly granular and 'thick' descriptions of both translations and translators, this database, we hope, will serve as an innovative analytical tool that can be used by all researchers interested in the circulation of texts, ideas and people in this time period.

Beyond its important public-facing function, the database is being used by the research team to experiment with methods of reading translation. In particular the suite of digital tools that we have constructed have allowed us to (1) run statistical analyses on paratext functions in order to visualise patterns across the corpus as a whole; (2) construct a prosopography by creating machine-readable biographical records that can be incrementally expanded in future iterations of the project; (3) map texts to political events across three languages and five political chronologies that illuminate the complex interaction between translation history and the history of revolutionary movements. These instruments too, we hope, will be used by other scholars pursuing their own research agendas.

But digital humanities projects also have a tendency to unfold according to their own logic, reflecting the constraints of machine-language and standardization as well as the vagaries of any collaboration that involves the coordination of several individuals, each with their own perspective on the material. On the one hand, the ability to link to other databases, whether through the VIAF system, Wikidata or to full-text digitised publication where they exist (e.g. on Google Books or *Gallica*), has resulted in a highly relational resource that acts as an information hub on a phenomenon—radical translation—that is far reaching but still relatively unexplored by the scholarly community. On the other hand, users that navigate to our website encounter the database alongside a set of related resources of a more discursive and self-reflective nature, notably blog entries that draw attention to problems of method,

some of our discoveries and impact activities, and the work of other scholars in Translation Studies, revolutionary history and further afield. By making visible our process of collection and framing, we intended to alert users to the limitations and inherent subjectivity of any corpus, even as we strove to create a resource that would respond not just to our research desiderata but also to concerns and needs different from our own.

Finally, a key challenge of any small-scale humanities database such as ours, especially at a time of academic austerity, is future access. The database has barely stabilised as the funded period of *Radical Translations* draws to a close, yet we are already faced with the prospect of a drastic reduction in functionality in 5 years' time, and the dismantling of the front-end interface 3 years after that (unless additional funding becomes available). So what happens to the data in the long term? They will be archived as basic tables in .cvs format, but the infrastructure that enables users to search and correlate information across the different datasets will not be maintained, nor will the elaborate apparatus of annotations, links, visualizations, blogposts, user guides, and self-reflective commentaries that we have built around the data to support interpretation. The raw data might remain, then, but our ideas will vanish. The "conflicting temporalities" of, on the one hand, research practices that germinate over a long period of time and, on the other hand, the short life span of the data formats and platforms raise difficult questions about the sustainable contribution of digital humanities research in the longer term.[37] For all the dazzling opportunities and novel inter-crossings afforded by our interactive database, it is a sobering thought to realise that the most durable testimony of our collaborative enterprise might be a string of characters, a group of sentences on a table or spreadsheet, or even better, a traditional book chapter such as the one you are reading now.

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[37] Barats et al. (2020, p. 26).

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Chapter 9
Visualising Translation History: Fragmented Visualizations Representing Space and Time

Philipp Hofeneder

9.1 Introduction

Data visualisation has become an important element of scholarly research in general. Yet, visual representations of abstract data as well as real objects are not equally established in all disciplines. While they have become omnipresent in some disciplines and nowadays even traditional formats such as scholarly articles are inconceivable without them, in other disciplines they are hardly encountered at all, and if they are, they are usually met with scepticism. In addition to this fundamental unease, there are three other circumstances that affect the state and role of visualisations in the humanities. Research in the humanities often focuses on complex political, social, and cultural processes, the visualisation of which presents a particular challenge. For example, social relations are much more difficult to visualise than quantitative evaluations. At the same time, visualisations still require a high degree of know-how. Low-threshold and at the same time low-cost programmes facilitate in principle the creation of what has previously been implemented by specially trained experts. At the same time, questions about the design, layout or general readability can only be answered with the appropriate experience. Thus, visualisations, and this seems to have a particular impact on their perception, continue to be seen as a secondary step of scholarly activity, subordinate to the primary gain of knowledge. In this understanding, knowledge does not take place through the visual representation of information, but primarily through the verbal interpretation.

This chapter critically examines the question of how visualisations affect the emergence of scholarly knowledge in Translation Studies, a discipline in which they

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have hitherto hardly made an appearance. Visual representations are not bound to any concept of translation but can be developed and used independently of it. The decisive factor is rather which methodological focus one adopts and what the visualisation focuses on accordingly. The present chapter focuses on natural space and how people, objects and institutions were involved in translation and the spatial relationship they have to each other.[1] In this understanding, space loses its mere function as an empty shell or physical precondition of human actions but becomes subject to attributions and subsequently part of social processes. When space is no longer a static container it becomes changeable and itself changes human activity.[2] Knowledge is understood in this respect as a "mobile form of culture",[3] which is not fixed in time and space but is substantially characterised by movement. Livingstone highlights how knowledge is not static but modified as it moves, so that "the successful circulation of scientific knowledge was, as much as anything else, about settling upon strategies to stabilize knowing-at-a-distance".[4] It is not only important where knowledge is produced, but also where it circulates afterwards and how it is accepted in other places.[5]

This brings the movements in space and its relations to the fore. Where do the individual actors come from, where do they move to and where do they stay? The localisation of translation in natural space leads to a mapping of corresponding movement patterns and spatial relations, which becomes the basis for further analyses. In this context, visualisations are to be understood as a consistent methodological development of the spatial turn.[6] According to this approach, it is only through visual representation that certain spatial relations of a historical translation phenomenon can be revealed and lead to new insights.

Given the low prevalence of visualisations in Translation Studies, this chapter aims at low-threshold and replicable forms. It is questions of application and practical implementation that are brought to the fore. The chapter is divided into two parts: in the first part, methodological-theoretical prerequisites are clarified. What do visualisations consist of and for what or for whom are they created? This section shows how much the field of application, the purpose and finally the factual form of visualisations are closely interconnected. This first part will conclude with a critical comparison of these central elements. In the second part, a concrete space-time visualisation is presented and critically analysed. The focus is on the practical application and the question of what to look out for in the implementation. The visualisation consists of several parts that are interrelated and address different spatial and temporal aspects of knowledge transfer in Europe at the beginning of the nineteenth century.

[1] Cf. Simon (2006), D'hulst (2018).

[2] Cf. Crang and Thrift (2000, p. 3).

[3] Montgomery (2000, p. 2).

[4] Livingstone (2003, p. 16).

[5] Cf. Secord (2004, p. 149).

[6] Cf. Crang and Thrift (2000), Dünne and Günzel (2006).

9.2 What Is Visualisation (for)?

A definition of visualisations is intrinsically linked to its purpose as well as its intention. Basically, we distinguish between three different forms.[7] So-called scientific visualisations aim at the graphic simulation of real objects and thus provide new insights. One example is a computer tomography scan, which is used in medical examinations. The focus lies on a realistic depiction of the object being examined, which enables further research. Information visualisation, on the other hand, is based on abstract data and aims at the representation of complex relations that must first be made visible. This form of visualisation does not represent an external reality and thus does not exist a priori. Connections and relations are generated through visualisation. This form represents a subjective and schematised form. It serves as a starting point for further discussion, a point of reference for considering certain ideas and no longer solely as the representation of fixed and acknowledged expertise. A third form is called geographic visualisation. Here, spatial coordinates or individual spatial relationships are depicted, most commonly in the form of a map.

The individual types exist in pure form, but also mixed and thus overlap to a certain degree. In the humanities, information and geographic visualisation dominate. This has to do with the fact that the latter specialise in the analysis of complex social processes, and historical depictions of objects or persons are preferred to their graphical simulation.

If we ask for the reason and, as it were, a justification for visualisations, we come up against fundamental questions of epistemology. Research in the humanities is essentially characterised by the fact that the possible interpretations of the object under examination differ from each other. In this understanding, scholars in the Humanities do not reveal facts that exist a priori and are only uncovered and analysed by them. A fundamental premise of research in the humanities is precisely this construction and interpretation of knowledge.[8] The description and, consequently, the chosen methodological perspective constitute the object of investigation itself. Scholarly methods exist side by side in the humanities without ultimately being able to classify one of the methods as superior. The same applies to visualisations. These are not to be understood as a mere pictorial depiction of previously written thoughts, but a method in its own right.[9] As such, they generate new insights and connections. They are not something new per se, but another methodological perspective that can, and in some cases must, be used in interaction with other perspectives. They thus enable old questions to be cast in new forms and one's own horizon of knowledge to be expanded.[10]

[7] Cf. Munzner (2014), Nazemi et al. (2021).

[8] Cf. Drucker (2011, 2020).

[9] Cf. Graham (2017, p. 449).

[10] Edelstein et al. (2017, p. 408).

Visualisations have a long and rich history on their own.[11] It was Galileo Galilei (1564–1642), for example, who made frequent use of them in his scholarly work. They served not only as mere illustrations, but were a central component of his argumentation, and even more as circumventing proof of his own scholarly theses.[12] In this understanding, text and image do not exist in a one-sided relationship of dependence. The image no longer functions only as a subordinate representation of previously written findings. Rather, images and texts initially exist separately from each other and are to be understood as two different channels of communication through which knowledge is conveyed. With their own advantages, images and text convey different points of view and allow for different possibilities of knowledge transfer. This functional separation of image and text is reflected in the relationship between the two. The text or a written statement of knowledge should not only be followed by a visualisation related to it. Rather, text and image are intertwined. In this process, knowledge is shown alternately in one of the two or in both media, without giving preference to one medium from the start.

But what does this mean for Translation Studies? What are the possibilities and areas of application for visualisations and where can they be used successfully? Visualisations are by no means to be used as a method without restrictions. It makes sense that research work and the associated visualisation should not be decoupled but be carried out by one and the same person. An important field of application for visualisations in Translation Studies is the quantitative processing of research data. Here, one can fall back on a variety of existing forms that are not bound to a specific academic discipline or research methodology. More difficult to implement are qualitatively oriented visualisations that refer to political, social or cultural processes and are intended to depict complex relations. They can only be reproduced to a limited extent by generalised forms of visualisation but must be produced with no or little templates to use. Finally, visualisations allow one to communicate one's own work and approaches to a much broader audience. They do not necessarily presuppose a subject-specific discourse and its knowledge, but are based on a visual language that, by definition, has a much wider audience. They thus create a transdisciplinary awareness in academic circles that is especially necessary for smaller disciplines such as Translation Studies.

9.3 For Whom Do We Visualise and What Should We Pay Attention to?

The area of application or the potential target audience essentially determine the type and manner of a visualisation. A distinction must be made between internal factors, which affect the visualisation itself, and external factors. Internal factors relate to the

[11] Cf. Daston and Galison (1992), D'Efilippo (2014).

[12] Cf. Tufte (2006, pp. 97–103).

structure, composition and the visual expression of a visualisation, which is broadly understood to mean its design.[13] External factors refer to general questions regarding the use or handling of a visualisation. In the following, without claiming to be exhaustive, six external aspects will be discussed that serve to define a visualisation and its area of application and task more closely: For whom is it created (target group)? Which means of communication is suitable (medium)? What task should it fulfil (purpose)? What elements does it consist of (composition)? What possibilities should users have (interaction)? Which software should be used to create it (technology)?

A first, essential point concerns the target group of visualisations. Who is to be addressed? Which audience is it aimed at? In principle, there are three different areas that are not mutually exclusive and that can be used simultaneously. In the humanities, visualisations still and especially serve to communicate scholarly findings to an (interested) lay audience. In this understanding, they take on a purely illustrative and thus popular science function. In addition, visualisations are also used in purely scholarly contexts. Primarily, these are examples that are directed at one's own discipline. At the same time, and this is particularly true of Translation Studies, visualisations are also of relevance in works with an emphatically interdisciplinary character.[14] In these cases, they make it possible to create a new visual language that is not oriented towards an existing, written discourse, but rather, precisely through a reduction and clarity of representation, they can convey new insights and findings much more consistently than a text. At the same time, visual representations are much better remembered and allow individual disciplines or topics to gain increased attention. It is therefore necessary to ask whether visuals are used for one's own discipline, to communicate research to other disciplines or even beyond the academic sphere. Related to this are questions of visual language and visual literacy.[15] Each target audience has its own competencies in the reception of visualisations. This is related to certain habits in presentation, which have a direct impact on the design and thus the readability of a visualisation.

A second point relates to the medium in which a visualisation is used or consumed. Technological developments and their implementation in the scholarly community allow for a wide range of applications. Nevertheless, certain forms are limited to individual media. Static visualisations can be presented in classic formats such as printed articles or posters. Here, a temporally and spatially fixed situation is depicted that cannot be changed. On the contrary, interactive and explorative formats require some technical prerequisites and cannot be displayed on every device. Beyond that they are often bound to an internet connection. Here, individual queries are possible in which individual factors are changed according to interest.[16]

[13] Cf. Shneiderman (1996), Drucker (2021).

[14] Cf. Beck (2013, p. 40).

[15] Cf. Pauwels (2008).

[16] For the field of Translation Studies, see the following example (https://fili.fi/worldmap/index.html), which visualises translations into Finnish between 1980 and 2018 and allows individual

Innovative formats such as storymaps[17] or so-called pop-up PDFs[18] enable a range of text-image relationships that are not only interactive but can also be embedded in existing research. In any case, a distinction must be made between different types of technical devices. Tablets, for example, allow only limited interaction. Another thing to consider is that text and image can also be used separately. For example, visualisations can be part of a printed article, but can also be accessible online and on their own. This is of particular interest in the case of further use in other contexts (such as university teaching).

Central to the form and content is the question of the purpose of a visualisation. Is it to answer one or more specific research questions? Should it initiate a discussion and raise questions? Or does the visualisation serve to arouse a general interest or take up an existing discourse about a topic? It seems important that the purpose of a visualisation is also stated and obvious. In many cases, it is not clear what a visualisation is aiming at, and it cannot always be completely reconstructed by the context. This leads to visualisations being limited in their effectiveness or comprehensibility.

Before an idea is implemented, it is important to ask what it is going to consist of. How many elements will it include and in which medium are they available? Again, the purpose or the field of application and the possibilities determine these parameters. Does the visualisation consist of one element that is integrated into the text? Does it consist of several elements that can optionally and additionally be accessed in other places or media than the text itself? Do all visualisations take a similar form (e.g. several thematic maps) or do they differ from each other and address different aspects of one and the same topic?

It is important to ask in what form and to what extent interaction and exploration should be possible. Technological developments enable a variety of approaches, allowing individual queries and personal activities to be left to the user. This leads to interaction, which in turn does not aim at presenting unchanging findings, but rather puts discussion and variability in the foreground. At the same time, subjective research interests can be pursued and thus a significantly larger target audience can be reached. Whereas, for example, thematic maps in printed form only show changes to a limited extent, this is possible on a wide range of technical devices.

Finally, the question of the appropriate software is also related to these considerations. As mentioned at the beginning, visualisations are ideally to be created by the people who are involved in the research work themselves. Sophisticated software programmes require extensive knowledge that can often only be acquired over a

queries. Another example comes from the research project *Radical Translations* (principal investigator Dr. Sanja Perovic; https://radicaltranslations.org/) and shows, among other things, an interactive timeline that can be changed to individual queries: https://radicaltranslations.org/database/timeline/?page=1&page_size=1000, see also Chap. 8.

[17] Cf. on a historical translational phenomenon the following storymap: https://storymaps.arcgis.com/stories/e0fd01b5e3924c26822f48de4d13e4ab

[18] Hofeneder (2022).

longer period. In contrast, there is a wide range of visualisation tools that are much easier to use, but which set limits to one's own possibilities.

The overview provided here serves to define visualisations more closely and to consciously question their composition, orientation and usability. No matter which solution is chosen, it seems important that this information is also communicated to the user. Because despite the increasing number of visualisations, it is not always clear what they are aiming at and with what intentions they were created.

9.4 Space-Time Representations of Knowledge Transfer in the Nineteenth Century

The emergence and establishment of knowledge presupposes to a large extent the mobility of people and objects. Only when they move and enter a causal relationship is knowledge created. Knowledge transfer has been studied under this aspect of mobility for some time.[19] In doing so, one falls back on a metaphorical understanding and often describes knowledge transfer as circulation. This is a term widely used in the humanities,[20] which understands the emergence and dissemination of knowledge by means of unchanging trajectories, akin to the circulation of planets or blood. Conceptualising knowledge transfer in this way does not correspond to real-life processes.[21] For knowledge often emerges and is disseminated spontaneously, sometimes unilaterally and in any case rarely along fixed trajectories.

The following visualisations reconstruct real movements and relationships in space and the existing understanding of knowledge transfer is subjected to a thorough examination. They consist of several parts that are not only embedded in the text itself but can also be accessed separately.[22] This makes it possible to read the text and the image separately and to adapt both parts to individual requirements. At the same time, the visualisations can also be used in further research, for didactic purposes or in other environments. Space-time representations offer a wide range of possible applications and can thus be used in a variety of constellations.[23] Existing approaches serve as a useful starting point, but they must always be adapted to the respective object of study or the disciplinary circumstances and can rarely be transferred directly. The visualisations were created with Adobe Illustrator. On the one hand this programme allows a wide range of solutions; on the other hand no ready-made elements can be used in a modular system but must all be drawn by the users themselves.

[19] Cf. Livingstone (2003).

[20] Cf. Östling et al. (2018).

[21] For a problematisation of the concept of circulation, see Burke (2007).

[22] All visualisations can also be found on my website, https://homepage.uni-graz.at/de/philipp.hofeneder/informationsvisualisierung/visualisierungsfragmente/

[23] Cf. Aigner et al. (2008), Bach et al. (2014).

The visualisation consists of a total of eight parts that address different spatial and temporal aspects of knowledge transfer. Colour codes, signatures, pictograms and the general design are the same for all visualisations and thus consistently applied.

In principle, visualisations should function on their own. The sequence presented here follows a concrete line of argument. The individual elements build on each other and stand in a well-thought-out relationship. A thematic map forms the starting point and schematically depicts the complex political, social and cultural conditions. Based on this, the following visualisations refer to one or more aspects of this map, giving it more depth and clarity.

With Tsar Alexander I (1777–1825, Emperor of Russia from 1801 to 1825), Russia began a forced education policy, which aimed to create nationwide educational institutions under state control.[24] In becoming a modern administrative state, knowledge production was understood under utilitarian aspects and primarily served the training of future state officials as well as concrete, socio-political needs. One result of these extensive activities was the founding or reopening of several universities, which were to raise the level of science significantly and at the same time became centres of educational districts.[25] Within a short time, in addition to the only previously existing university in Moscow (founded in 1755), several other universities were founded or reopened: in Dorpat[26] (Tartu, reopened in 1802), Wilna (Vilnius, 1803), Kharkov (Kharkiv, 1804), Kazan (1804), Warsaw (1816) and St. Petersburg (1819).

Within these activities, there was an intensive exchange with Central and Western Europe, which included not only the transfer of knowledge (curricula, administrative structures), but especially the recruitment of academics. What does this transfer of knowledge look like in detail, who was involved in it and where, and what forms did this transfer take in spatial and temporal terms?

Johann Ferdinand Giese (1781–1821) is a paradigmatic example of a mobile scientist who was involved in the founding of universities in Russia at the beginning of the nineteenth century and whose origins, education and professional activities spanned different parts of Europe.[27] Born in Schaumburg not far from Frankfurt/Oder in 1781, he studied pharmacy in Berlin and Erfurt. It was in Augsburg where he gained his first work experience as an employee in a chemical laboratory, before moving to Vienna in 1802 as a court pharmacist. At the age of 23, Giese was appointed to the newly founded University of Kharkov. He spent the next 17 years in Russia and had a distinguished university career. Having already been appointed

[24] Cf. Kusber (2004).

[25] Cf. Flynn (1988).

[26] The geographical proper names have been rendered in the form customary in English in the nineteenth century. The contemporary equivalents are given in brackets.

[27] Giese's biographical data, like that of his translators, is based on the following sources: a bibliographical database on significant actors in Russia before 1918 (https://www.amburger.ios-regensburg.de/), Polovcov's bibliographical dictionary (*Russkij biografičeskii slovar' v 25-ti tomach*, St. Petersburg 1898–1918), and a publication on the history of Kharkov University (Osipov and Bagalei 2008).

adjunct professor in 1805, he was promoted to full professor of pharmacy and technical chemistry in 1811. From 1811 he was dean of the department of physics and mathematics for 2 years. Three years later he left Kharkov and was appointed professor at the University of Dorpat, of which he later became rector. He died in 1821 in Mitau (Jelgava), a then important town not far from Riga. Giese was the author of numerous publications, including a textbook on pharmacy and several scholarly papers. His publication track record provides insights into the scholarly community at the beginning of the nineteenth century. They have been published in various languages and in various places.

In several respects, Giese is a paradigmatic example of a scientist active in large parts of Europe at the beginning of the nineteenth century. He completed an extensive education in German-speaking countries, gained professional experience in various fields and then emigrated to Russia at a young age, where he worked successfully at several universities until the end of his life and contributed significantly to the establishment of research in chemistry. At the same time, he remained known and was extensively received outside Russia. His scholarly activities were not a one-way transfer to Russia, but conversely also took place from Russia to wide parts of Central and Western Europe.

A characteristic element in Giese's activities lies in the high spatial concentration of his later life which contrasts with the geographical scope of his academic work. His research work had a supra-regional orientation and was received in large parts of Europe, while he spent most of his adult life in Russia. Thus, natural space has a special significance. This visualisation is intended to fulfil two requirements: on the one hand, to give a rough overview of the complex and geographically widely scattered activities, and on the other hand, to thematise details and analyse individual situations.

The starting point and at the same time the synthesis of the following visualisations is a thematic map (Fig. 9.1) that provides an initial overview of relevant activities. The focus is on the spatial relationship of the depicted actors, objects and institutions to Russia at the beginning of the nineteenth century. It is the simultaneity of these activities and movement patterns that can be depicted on a single map and that leads to new insights and findings. The thematic map on Giese consists of three levels: Giese's life path, the places of publication of his scholarly publications and the places of action of the translators of his Kharkov period. The individual levels can be read separately, but also in relation to each other. In addition to the place of birth and death, the life path includes the most important professional stations and reflects only those stays that are relevant to the research question. Giese's scholarly publications are presented in the form of year dates and use a colour code for the publication language and distinguish between independent publications (framed year dates) and dependent publications (year date without framing). The translators and translations of Giese's works that were produced during his Kharkov period (1804–1814) are represented by a translatorial space taking the form of a yellow circle. Numbers from 1–4 are used to designate author, source text, translator and target text. They show the spatial relationship in a schematic way and serve as a starting point for further analysis. What we can see

Fig. 9.1 Thematic map visualising Giese's life path, the places of publication of his scholarly publications and the places of action of the translators of his Kharkov period. All visualisations are accessible in high resolution under the following DOI: https://doi.org/10.5281/zenodo.14509777

from this thematic map is a certain spatial relationship, namely that all agents and objects come together at the University of Kharkov and are connected to this academic institution in one way or the other. The translations were made by Giese's colleagues and printed in the university's printing house as they served to establish Russian-language research there.

The map is in many ways a schematic representation of these complex processes. Russia's borders significantly changed several times at the beginning of the nineteenth century.[28] Static maps, which for technical reasons do not or only partially depict these changes, rely on a schematic representation. The present map depicts these changes to some extent, as dark pink areas belong to the official territory of Russia throughout the whole period of examination, while the light pink areas (Kingdom of Poland, the Grand Duchy of Finland and what is today part of Kazakshtan) are only becoming part of Russia.

Information on Giese's places of residence is only partially available. This holds even more true for the translators. For this reason, the visualisations are schematic and only allow partial conclusions to be drawn. Finally, the same applies to the publications themselves, as it was a common practice in the nineteenth century to fake places of publication, mainly to evade censorship.

[28] For a useful visualization on the complex changes of Russia's territory see: https://map.runivers.ru/?year=1804

Nevertheless, the map reveals certain patterns of movement and spatial relationships, which will be explored in greater depth. Giese's places of residence stand in marked contrast to the geographical scope and perception of his scholarly activities. While he spent most of his professional life in Russia, he published numerous works in Germany during the same period. He wrote most of these works in German. At the same time, the map shows that the choice of publication language and the place of publication are directly related. Finally, it is the visualisation that indicates that the translations into Russian show a high spatial concentration. The thematic map provides an initial overview and at the same time exposes conspicuous relationships and patterns. Detailed aspects are addressed in the following visualisations.

In addition to his mother tongue German, Giese was also proficient in Latin and presumably French, the three most important and most widely used languages in the scholarly community in Russia at the beginning of the nineteenth century. No other language skills are known, which is why his Russian-language publications must be classified as translations throughout. The question now is who translated his works, for what purpose and in what places. There are seven known publications in Russian, all of which were published or begun during his time in Kharkov. Of these, only three are marked as translations. All publications are directly related to Giese's professional residence at the university since they were printed at the university's printing house. Among them, the translation of his *Lehrbuch der Pharmazie* (1811–1817) should be highlighted. The translation was financed by the government in St. Petersburg and served to establish the teaching of pharmacy in Russian at universities in Russia. Kharkov as a point of reference for Giese's translations is also significant for the translators of his works into Russian known to us. They all came from or near Kharkov or spent a significant part of their studies or later professional lives there. All three translators were (associate) professors at the university and thus came from the author's immediate spatial and social environment.

Pavlo (Pavel) Shumlyansky (1750–1824), the first translator of his works, was born about 50 kilometres north of Poltava. He studied at the important Mohyla Academy in Kiev (Kyiv) from 1763 to 1770 and worked at the General Hospital in St. Petersburg from 1773 on. Due to extraordinary success in his studies, he spent 5 years (1784–1789) at the University of Strasbourg. This made him one of the few students from Russia at a Western European university at that time.[29] He was then appointed professor at the Medical Academy in St. Petersburg, becoming one of the most important representatives of his discipline. Around the same time as Giese, he came to the University of Kharkov (1805–1817) as professor of surgery and was appointed dean of the medical faculty several times. In his numerous scholarly works, most of which were published in Russian in Kharkov, he was particularly concerned with the medical significance of healing springs. In at least two cases, Shumlyansky acted not only as translator but also as co-author of Giese's works (Kharkov 1806 and 1808).

[29] Cf. Andreev (2005).

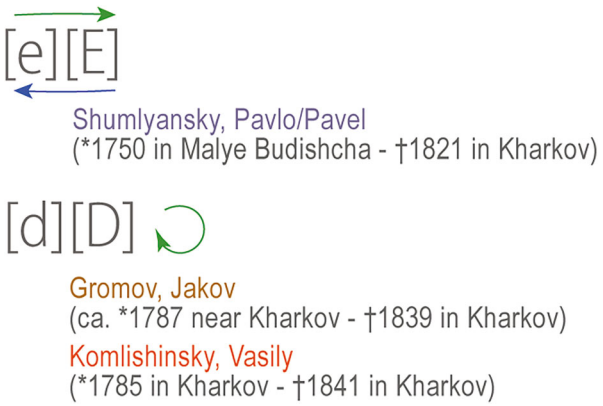

Fig. 9.2 Giese's three known translators

The other two known translators of Giese's works also came from his immediate scholarly environment. Vasyl (Vasily) Komlishinsky (1785–1841) was born in Kharkov. After completing his studies there with a doctorate in 1808, he worked for a while as a lecturer before teaching mathematics and physics at a grammar school in Chernigov (Chernihiv), some 400 kilometres northeast of Kharkov, in 1810. Already a year later he returned to his birthplace as a lecturer at the university. After further studies in physics (doctorate in 1813 in Kharkov), he was appointed associate professor in 1818 and full professor in 1821 at the same place. As a dean and, from 1836, briefly rector, he had a decisive influence on the further development of the university. Komlishinsky is known as the translator of two works by Giese, in particular as a translator of Giese's textbook. In addition, he is known as the author of several scholarly works.

The third known translator, Jakov Gromov (1787–1839), was born in the immediate vicinity of the university city and studied there from 1805. After a one-year stay in Moscow (1811), he worked as a lecturer at the medical faculty of his alma mater. Between 1820 and 1835, he was adjunct professor at the chair of pharmacology and history of medicine. Together with Komlishinsky, he translated one of Giese's works. Gromov died in Kharkov in 1839.

In contrast to the thematic map, the second visualisation on the translators consists of a total of four individual representations (Figs. 9.2, 9.3, 9.4 and 9.5), which are spread over several pages and are interrelated. At the same time, they tie in with the thematic map and the translational space there in the form of a yellow circle. This multi-part representation allows individual aspects to be picked out and thematised. Again, it is the localisation of translation that can be presented in a particularly comprehensible way in the form of maps or spatial representations. The translators all come from Giese's immediate spatial and social environment. Apart from Shumliansky, they spent their entire lives in Russia.

A third area of visualisation, in addition to Giese's curriculum vitae and the translators of his works into Russian, concerns his scholarly publications. Figure 9.6 represents an attempt to bring the language and place of publication into a direct relationship. The starting point is a straight timeline which is supplemented by a

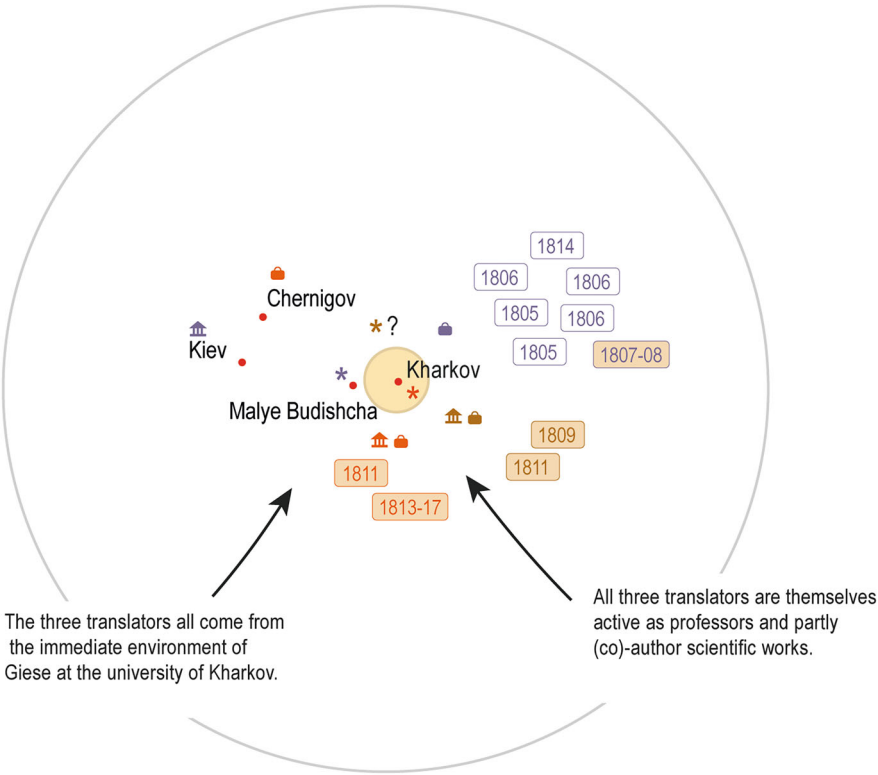

Fig. 9.3 Giese's immediate spatial and social environment

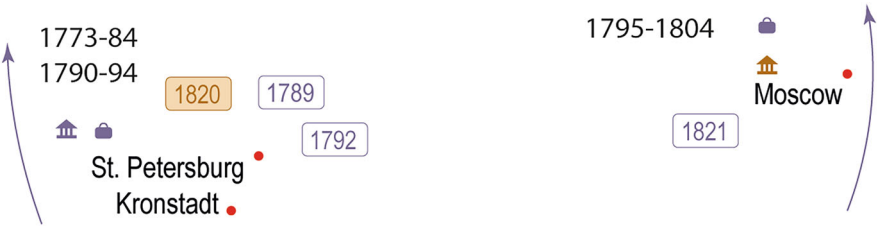

Fig. 9.4 Spatial and social environment of Gromov and Komlishinsky

highly schematised life path of Giese, which covers the most important stages and takes a striking turn in 1804, marking his move to Russia. Above and below the timeline are year dates representing individual publications. In addition, these dates have been colour-coded, with black representing publications in German, red for French and brown for Russian. Finally, the publication years were also arranged geographically, those above the timeline appearing in Russia, those below outside Russia. The spatial-temporal visualisation of Giese's publication activity allows

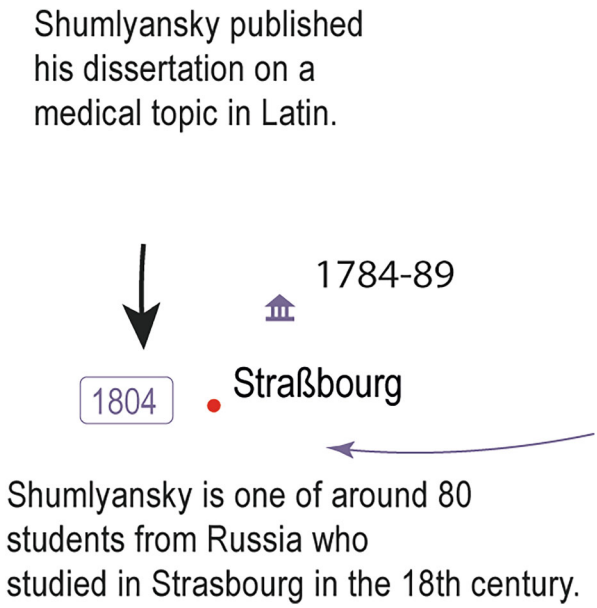

Fig. 9.5 Spatial and social environment of Shumlyansky

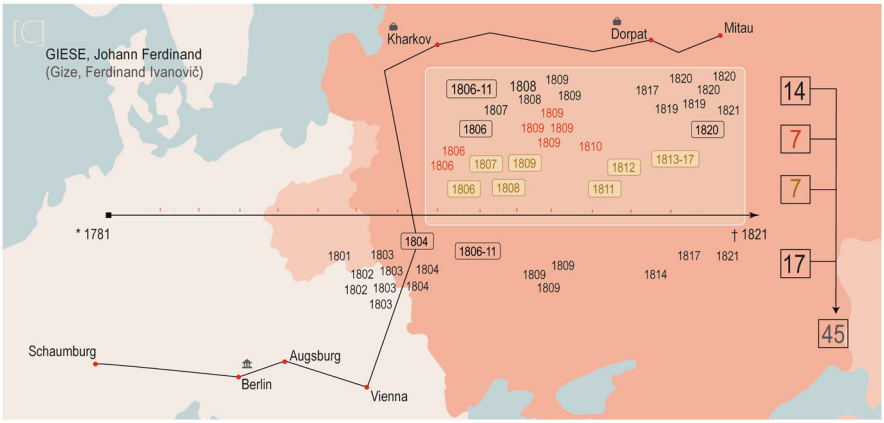

Fig. 9.6 Giese's scholarly publications

some important conclusions to be drawn. Before he moved to Russia in 1804, Giese published exclusively in German. It was only after his arrival in Russia that he also published translations of his works in French and Russian. On closer examination, it was only during his Kharkov period that he published in different languages (German, French, and Russian). Before and after that, his only language of publication was German. In quantitative terms, German is his most important language of publication, with around two-thirds of all publications. At the same time, the visualisation shows that around half of all German-language works appear in

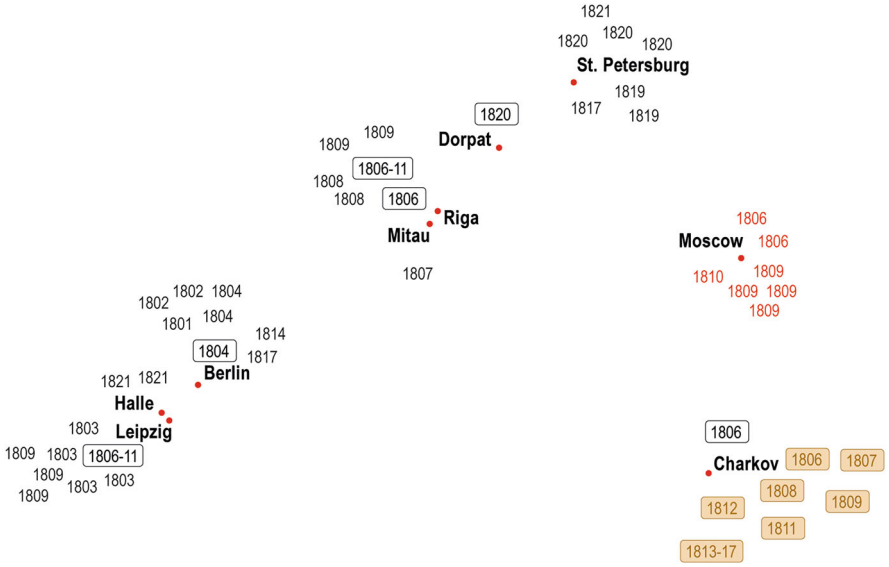

Fig. 9.7 Relationship between choice of publication language and place of publication

Russia, which means that German is of supra-regional importance in Giese's work. Giese continued to publish outside Russia even after he moved to Russia in 1804. Finally, the visualisation also allows insights into Giese's concrete form of publication. Only monographic works appear in Russian, which are presented in the form of dates with a frame. These include textbooks for university teaching as well as individual monographic works. In French, the situation is reversed; there are only publications that have appeared independently (which are presented with simple year dates without framing). In both cases, a functional limitation as a scholarly language is evident. At that time, hardly any scholarly journals existed in Russian, which is why only monographs were published. Only in German are there monographs as well as journal articles, which moreover extend over a long period of time and appear in a variety of places.

The relationship between the language of publication and the place of publication was broken down in Fig. 9.6 according to general geographical circumstances (within or outside Russia). A closer look in the form of another visualisation (Fig. 9.7) allows further insights and confirms the assumptions made earlier. There is a direct and causal relationship between the choice of publication language and the place of publication. Russian-language works appear exclusively in Kharkov, French-language works in Moscow. Only works in German span several cities, all of which are either in Germany or have a significant German-speaking population (as in the case of Mitau, Riga, Dorpat and St. Petersburg). One reason for this distribution lies in the political as well as social circumstances of their origin. The university in Kharkov, founded in 1804, was developed as a Russian-language

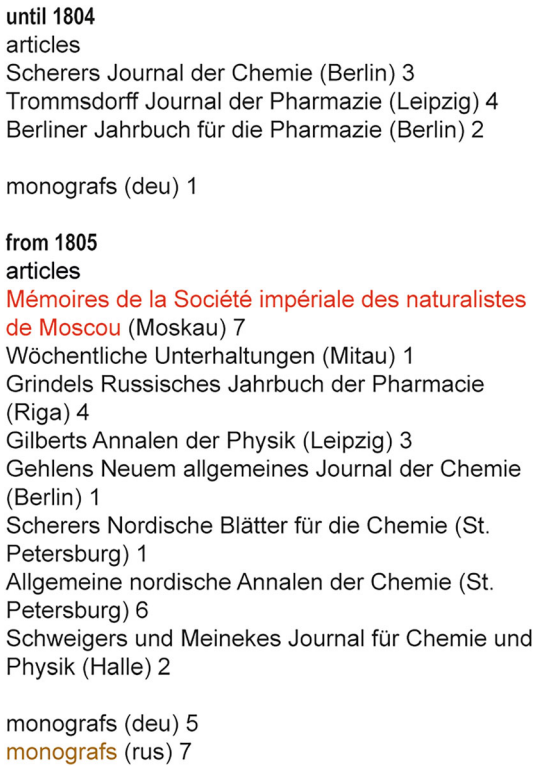

Fig. 9.8 Spatial-temporal relationship of the publication organs used by Giese

educational institution, unlike other universities in Russia. At the same time, students did not always have sufficient knowledge of foreign languages, which is why teaching in the mother tongue became necessary. The articles in French all appeared in the *Mémoires de la Société impériale des naturalistes* in Moscow, the publication organ of the Moscow Society of Naturalists. Founded in 1805, the society was dedicated to the study of scholarly problems, undertook expeditions and published its findings. Due to its status as a non-university institution and strong international participation, French dominated as the language of science. The German-language works from Dorpat, Mitau and Riga, on the other hand, can be traced back to the German-speaking culture that dominated in these cities. The same is true to a certain extent for St. Petersburg. The visualisation shows once again how strongly Russia was shaped by multilingualism in the field of science in the nineteenth century. The use of certain languages resulted not only from social aspects such as culturally established hierarchies (such as the dominant use of French among the nobility) but was also influenced by geographical traditions. Official language policy took these relationships into account, at least until 1830.

The final visualisation (Fig. 9.8) brings the individual publication organs in which Giese publishes into a spatial-temporal relationship. For this purpose, the

publications are arranged in chronological order and given the colour code used earlier. In addition, the number of Giese's publications in the respective organ is indicated. The publications are divided into two periods: before and after his move to Russia. Once again, the functional differentiation of German as a scholarly language becomes apparent. The visualisation allows interactive use. The individual journals are named and hyperlinked to scanned issues or to further information about the journals. This allows the individual journals to be explored in terms of their meaning and role. The visualisation no longer only serves to present a fact, but also enables further research on this topic.

9.5 Conclusion

What is the point of visualisation? What advantage can be expected for research in general and Translation Studies in particular? As mentioned at the beginning, visualisations are widely used in the humanities. And yet, at the same time, they are often met with scepticism. Thus, it is first necessary to overcome preconceived notions and give visualisations the importance they deserve. Visualisations, and this is one of the prerequisites for their acceptance, are not to be seen as a mere continuation of the text with other means. In the humanities, ideas, thoughts and knowledge are generally expressed and communicated through the medium of writing. At the same time, other means of communication can be used for this purpose. It is this change of sign that is necessary for a new understanding of visualisations. They are a method of data interpretation, an alternative form of interpretation that is central to the humanities. In this function, they are on an equal footing with other methods of the humanities and enable alternative perspectives on an object of study. Only with the help of visualisations do certain connections and relations become apparent and thus comprehensible. These result from a synchronous representation of individual factors, as is the case with the thematic map.

At the same time, it should be noted that this method is not always and everywhere equally useful. There are situations in which they have little additional epistemic value. Therefore, it is necessary to determine the methodological starting point for a visualisation. In the present case, it is the spatial aspects of a historical translational phenomenon that are of interest. Where are actors, objects and facilities located? What patterns of movement do they show and what is their spatial relationship with each other? And finally, what can this tell us about a historical translation phenomenon in general? This localisation of translation in natural space is directly related to the visualisations; they are to be understood as a logical methodological development. Only through the visualisation of these spatial relationships and patterns of movement can corresponding insights into the historical phenomenon of translation be achieved. These insights not only become apparent in the literal sense of the word but are even more comprehensible. At the same time,

these insights based on the visualisations are not a final product but are in turn to be analysed and interpreted.

In addition to this central function as an alternative method for research, visualisations are also used for disseminating one's own findings. In this case, too, it is necessary to rethink the existing understanding of this task of visualisations. In many areas of the humanities, they still serve to communicate research findings to an interested lay audience and thus to one-sidedly transfer them out of academia for public engagement and impact. However, visualisations also serve the scholarly debate in and especially between different disciplines in the humanities. Particularly due to the ongoing specialisation and the associated fragmentation of individual disciplines, visualisations are a useful way of communicating findings outside of discipline-specific discourses and with the help of a generally accessible visual language.

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Chapter 10
A European Translation Database: Benefits, Considerations, Feasibility

Hilary Brown

10.1 Introduction

Those researching translation in the Early Modern Period have a range of useful bibliographical tools at their disposal, both printed and digital. But provision is patchy: resources tend to be delimited by language-pair(s) or genre.[1] The only national database of translations for this period of which I am aware is the *Renaissance Cultural Crossroads Catalogue* (*RCCC*), developed by Brenda Hosington and a small team at the University of Warwick, UK and funded by a three-year grant from the Leverhulme Trust (2007–2010). The *RCCC* lists all known translations into and out of all languages printed in England, Scotland and Ireland (and all known translations into English printed abroad) between 1473 and 1641.[2] While data can of course never be wholly accurate or complete, the *RCCC* appears to have been updated on an ongoing basis and currently includes information on nearly 6500 texts.[3] It draws on two existing short-title catalogues of printed books, and provides further translation-specific information including, as appropriate, 'Original Author', 'Translator', 'Intermediary Translator', 'Original Language', 'Target Language', 'Intermediary Language' and 'Liminary Material' (i.e. a list of paratextual material

I am grateful to my colleague Professor Nigel Harris for his comments on an earlier draft of this chapter.

[1] Printed bibliographies include Rochedieu (1948), Fromm (1951–1953), Morgan (1965), Bihl and Epting (1987).

[2] See https://www.dhi.ac.uk/rcc/. Accessed: 1 March 2023.

[3] Cf. Reid (2020).

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such as prefaces and notes to the reader) as well as 'Notes on Translation' and 'Notes on Translator', with these last two categories often containing extensive detail. The *RCCC* was launched in 2011 and is still regarded as "indispensable" for research on translation in early modern Britain.[4] A supplementary catalogue, the *Cultural Crosscurrents Catalogue of Translations in Stuart and Commonwealth Britain (1641–1660)*, is currently in development at the Université de Montréal.[5]

The *RCCC* has inspired researchers to contemplate similar databases for other national contexts or even an 'umbrella' database on a European scale. Working together with the DFG's SPP 2130 Priority Programme 'Übersetzungskulturen der Frühen Neuzeit/Early Modern Translation Cultures (1450–1800)' as a Mercator Fellow, I organised a two-day online roundtable event in December 2021 on 'European Translation Databases' to explore the feasibility of building a pan-European resource for the Early Modern Period. We were envisioning a scaled-up version of the *RCCC*: a comprehensive online analytical catalogue of translations which would provide similar bibliographical information but might attempt to include manuscripts as well as print and would link where possible to digital texts. At the roundtable, participants shared their experiences of developing online resources for early modern translation and discussed some of the issues involved in embarking on a much larger-scale project. A number of participants at that event have contributed to the present volume and some include reflections on a European translation database in their chapters.[6]

Here I offer my thoughts on a European translation database from the perspective of a researcher rather than a DH expert. Unlike the other contributors to this volume, I have no experience in developing online resources and cannot comment with authority on technical issues. However, I have long been an enthusiastic user of the *RCCC* and can see how the *RCCC* has helped to advance research on the British context. In the field of my own recent work—the history of women translators—I believe that the future lies to some extent in big data: this is a theme which runs through my recent monograph on *Women and Early Modern Cultures of Translation* and to which I will return below.[7] In this chapter, then, I hope to contribute in some modest way to discussions about the possibilities which digital bibliographies offer for translation history. In the end, I shall be making a case for the importance of international collaboration as such projects are developed for the future.

[4] Reid (2020, p. 252). For background information on the project, see Hosington (2011).

[5] See https://catalogue.crosscurrentscatalogue.ca/. Accessed: 1 March 2023.

[6] See in particular the chapters by Greilich and Lüsebrink (Chap. 7); Mucignat and Perovic (Chap. 8); Weber et al. (Chap. 6). Magdaléna Jánošíková and Iris Idelson-Shein (Chap. 2) did not participate in the roundtable but their chapter also touches on the issue of a larger-scale resource.

[7] See Brown (2022).

10.2 Benefits

There has long been agreement among scholars that data-driven approaches could be more fully exploited in translation history research. Already in the 1990s, scholars were frustrated by the fragmentary information provided by existing printed bibliographies and were calling for the creation of a more comprehensive retrospective catalogue of translations on a European scale, whether printed or digital.[8] Over a decade later, Carol O'Sullivan commented on the continuing lack of datasets and singled out "bibliographical work, particularly web-based bibliographical work, to open up new fields of data".[9] The development of two digital tools specifically for the Early Modern Period—the *RCCC* and the *Universal Short Title Catalogue* (*USTC*; a database which currently allows users to search for any book printed anywhere in the world between 1450 and 1650 with information on where the books are located and links to digital editions where available)—led to an appeal from Warren Boutcher for more such resources to support research on early modern cultures of translation:

> The quality of interpretive analysis will ultimately depend not on individual attempts to find and use new sources but on the collaborative scholarly provision of proper data and tools for the study of translation […]. But we are a long way from possessing comprehensive and informative databases of all texts translated in the early modern period into and out of each of the European languages.[10]

Translations in the Early Modern Period have come to be seen by Boutcher and others as acts of communication which were embedded in complex networks of agents including authors, translators, intermediary translators, printers, booksellers, patrons and readers. Yet, he argues, we will be able to contextualise individual cases and appreciate the centrality and significance of translation in this period only when we have access to more data:

> One large problem is how little we know about what was actually translated and when, in print and manuscript, from which source texts or intermediary translations. And beyond that, how little we know about the transnational book trade, transnational book circulation, and the ownership of specific copies. There is a paucity of online tools designed specifically to facilitate the study of translations in their macro-contexts.[11]

My own experience over the years of researching women translators in the German states, c. 1500–1800 has often made me wish that bibliographical information on translations were accessible online in a single resource and that my own

[8] See Higman (1993), Roloff (1998).

[9] O'Sullivan (2012, p. 135). Note that O'Sullivan proceeds to qualify her statement, explaining that while translation-specific datasets would be useful, it may be better for translations to be incorporated into datasets with a broader remit to facilitate cross-disciplinary research (p. 136). For an early articulation of the benefits of an online translation database for a defined corpus (translations of non-fictional texts from French, Italian, Portuguese and Spanish into German), see Atayan (2009).

[10] Boutcher (2015, p. 24).

[11] Boutcher (2015, p. 24).

bibliographical discoveries could be made available to researchers more easily than in the appendices to my monographs. For it is still the case that much research on translation history begins at the level of bibliography. Of course, the study of translation has broadened in exciting ways—apparent not least in the range of projects undertaken as part of the SPP 2130 Priority Programme—but bibliographical work, however unglamorous and arduous, remains fundamental. The difficulties in ascertaining bibliographical information about translations from the Early Modern Period will be familiar: translations might have been called translations when they were not translations or not called translations when they were; the name(s) of the translator(s) may be given or may not be or we may be presented with initials or pseudonyms; we may or may not be told about the source text(s) used by the translator(s). Establishing information about the source text(s) is particularly difficult, in my experience, yet knowing the precise editions a translator worked with is the ideal basis for any meaningful analysis of what happens in translation. Clarifying even small details can lead research into new and sometimes unexpected directions. In my own work, finding out new bibliographical information has often given me a different view of a research area. There is the case of Barbara Helena Kopsch, for instance, who published two translations in the 1680s as a member of the Pegnesische Blumenorden. One target text names 'Mademoiselle de Scudery' on the title-page and can be easily identified as a translation of Scudéry's *Les Conversations nouvelles sur divers sujets*. The other is called *Vernünfftige GemühtsBeruhigung oder Kurze Lehr-Sätze / Wie die Begierden bey allen Begebenheiten vernünftig und wol zu regieren / und die wahre Zufriedenheit zu befördern* and the source text appeared not to be known. After lengthy research, and with the help of a colleague at Bristol University, I was able to identify the source as the *Cabinet des saines affections* (1584?), which has been attributed to Madeleine de L'Aubespine. The fact that Kopsch translated two texts by women appears noteworthy at first but turns out not to be the most interesting point (Kopsch herself would not have known that the *Cabinet des saines affections* was likely penned by a woman). Knowing Kopsch's sources (albeit not the precise editions), we can begin to explore her method and it is this which is in fact striking: in both cases Kopsch produces compendia comprising translations interspersed with her own engravings and poems which are akin to emblem books, suggesting an understanding of translation as *aemulatio* which demonstrates her commitment to the project of national cultural regeneration but which takes a seemingly unique form.[12]

What bibliographical resources have been available to me for researching German women translators in the sixteenth and seventeenth centuries? Printed lexica of works by German women in this period provide useful but only partial information on translations, for example rarely giving details about source texts.[13] The *USTC* has also been of limited use as the majority of translations by German women before 1650 are in manuscript; the six printed titles currently thought to contain translations

[12] Brown (2009), Brown (2022, pp. 177–184).

[13] Woods and Fürstenwald (1984), Gibbels (2018).

by women either do not show up in the catalogue as translations or do not appear in the catalogue at all.[14] More helpful is the Karlsruher Virtueller Katalog/Karlsruhe Virtual Catalog (KVK) which pulls together data from library and book trade catalogues across the German-speaking countries and worldwide. Thus Marie Fabry, née Colinet's *Trewhertziger Wegweiser, zu einem christlichen gottseligen Leben, und Absterben, auß heliger Schrifft zusammen gezogen* (Basel: Martin Wagner, 1626), a self-translation of her earlier *Petit Extraict de la saincte Escriture* (c. 1621), does not appear to be included in the *USTC* but comes up in Swisscovery after a search for 'Marie Colinet' in the 'All Fields' box in the KVK. Moreover, the Swisscovery entry includes 'Notes' which gives the title of the source text.[15] Similarly useful, and incorporated into the KVK, are the *VD16* and *VD17*, the databases of works printed in the German-speaking countries in the sixteenth and seventeenth centuries. The databases are being updated continuously, and although users cannot search specifically for translations, and translations do not appear to have been dealt with in any thorough or particularly systematic way, the entries for translations sometimes include useful information as well as links to digital texts. Consider, for instance, the entry for Margarethe Maria von Bouwinghausen's *Das Liecht der Weißheit: Zu Erforschung deß Ursprungs und wahrer Eigenschafften aller Dinge Den Weg zeigend*, second edn. (Ulm: Kühn, 1669) which includes details about the source-text author and title as well as a full reference to a modern journal article about the translation (see Fig. 10.1). On the other hand, I had less success when I searched for *Die Verachtung der Welt / In Sieben Betrachtungen* (Cöthen im Fürstenthume Anhalt [Köthen] 1641), a collaborative translation of Isaac Arnauld's *Le Mépris du monde* (1618) by Ludwig von Anhalt-Köthen, Sophia von Anhalt-Köthen and Count Albrecht Friedrich von Barby und Mühlingen. I was unable to find the translation using either the *VD17* or KVK.[16]

[14] An example of the former is *USTC* No. 2031600, i.e. *Discordista. Sive Secundus Scioppius Hoc est: Oratio Paraenetica. Oder: Deß H. Römischen Reichs Feind / Und Newer Friedenstörer. Das ist: Ein Auffrührische ErinnerungsSermon: An alle Könige und Fürsten* […] *Von den Ursachen deß Europäischen heutigen Kriegs / Erstlich in Latein* […] *außgangen* […] *Jetzt aber* […] *inns Teutsche gebracht: Von der* […] *Martha Salome à Belta, ihres Vatterlandts eyfferige Liebhaberin* (Warnstadt: Richter, 1620). The short-title ends at "Kriegs" and there is no other indication in the entry that this is a translation, let alone that the source text is Conrad (1619). An example of the latter is Fabry (1626), despite other entries for "Marie Fabry" and "Marie Colinet" (her maiden name), including the French source text (*USTC* No. 2032401) where for some reason the language is given as "German". See https://www.ustc.ac.uk. Accessed: 8 March 2023. Other researchers have commented on difficulties in using the *USTC* to research translations, see e.g. Armstrong et al. (2022, p. 513). See Brown (2022, pp. 257–266) for my list of translations by women in the German states, 1500–1690.

[15] See https://kvk.bibliothek.kit.edu. Accessed: 8 March 2023.

[16] The translation itself is available via the Digital Library of the University of Wroclaw: https://www.bibliotekacyfrowa.pl/dlibra/publication/edition/66215?id=66215. Accessed: 9 May 2023.

VD17 1:078651N

Schlüsselseiten:	Schlüsselseiten 1:078651N
Digital:	http://resolver.staatsbibliothek-berlin.de/SBB0002492200000000 [Volltext] [2018 digitalisiert von: Staatsbibliothek zu Berlin - Preußischer Kulturbesitz. Exemplar mit der Signatur: Np 13866] (Kostenfrei zugänglich ohne Registrierung)
Verfasser:	Charron, Pierre *1541-1603*
Titel:	Das Liecht der Weißheit : Zu Erforschung deß Ursprungs und wahrer Eigenschafften aller Dinge Den Weg zeigend / Angezündet durch den Herrn von Charron, in Französischer Sprache. Und nun übersezt/ Durch Eine Teutschliebende Feder
Ort/Jahr:	Ulm : Kühn, 1669
Kollation:	[16] Bl., 406, 412 S. : Kupfert. ; 12°
Fingerprint:	r-e- ndn: nell veau 3 1669A
Sprache/n:	Deutsch (Sprache des Originals: Französisch)
Anmerkungen:	Beiträger Sigmund von Birken unter seinem Pseud. "Der Erwachsene" auf Bl. a6 genannt Nach Killy (2. Aufl.) und Koloch-Mulsow übersetzt von Margareta Maria Bouwinghausen von Wallmerode Digitalisiert ; Digitalisierung Unika durch SBB-PK Berlin Bibliogr. Nachweis: Koloch, Sabine ; Mulsow, Martin: Die erste deutsche Übersetzung von Pierre Charrons 'De la sagesse'. In: Wolfenbütteler Barock-Nachrichten 33 (2006) 2, S. 120-150 Vorlageform des Erscheinungsvermerk: Ulm/ bey Christian Balthasar Kühnen/ im Jahr 1669. - Erscheinungsjahr auf dem Kupfert.: 1668
Einheitssachtitel:	De la sagesse <dt.>
Beteiligt:	Buwinghausen und Walmerode, Margareta Maria, von *1629-*
Sonst. Personen:	Birken, Sigmund von [BeiträgerIn]

Fig. 10.1 Entry for Bouwinghausen, Das Liecht der Weißheit, 2nd edn. (1669) in the VD17

Those researching translations into German will be well-served by two online catalogues currently in development and discussed in this volume:[17] the *Online-Repertorium Deutsche Antikenübersetzung 1501–1620* ('Online Repertory of German Translations of Classical Antiquity 1501-1620'; *ORDA16*), which provides information on all known translations into German (in print and manuscript) of Greek and Latin works from classical and late antiquity during the long sixteenth century, and the *Heidelberger Übersetzungsbibliographie* ('Heidelberg Bibliography of Translations of Non-Fictional Texts'; *HÜB*) which captures translations into German from French, Italian, Spanish, Portuguese, Latin, English and Dutch in the period 1450–1850. The *ORDA16* in particular is useful—albeit tangentially—for the study of women translators in that it aims to be comprehensive. The website includes a list of names of all translators in the database and we can see that none is a woman.[18] Possessed with this contextual data, we can at least start to ask questions about absence. Was the classical heritage off-bounds to women in the German-speaking states for reasons relating to their gender? Was this material considered too prestigious? Or is the absence of women humanist translators due to differences in women's education and circumstances?[19] In this sense, the *ORDA16* is similar to the *RCCC* in that it seeks to map a defined corpus as fully as possible and therefore provides the most reliable data to date about macro-contexts.

National databases aiming at comprehensiveness remain a desideratum, whether or not a European database is ever developed as well. We can see from the *RCCC* how they can support and enrichen research on national traditions. Even as the *RCCC* was launched, it quickly became apparent that the raw data in the catalogue

[17] See the chapters by Bastert et al., Chap. 5, and Weber et al., Chap. 6.

[18] See https://www.orda16.gwi.uni-muenchen.de/suche/?t=p&f=uebers. Accessed: 9 March 2023.

[19] Cf. Brown (2022, pp. 127–130). The *ORDA16* also includes a list of names of females in the database: three are printers and four are dedicatees. See https://www.orda16.gwi.uni-muenchen.de/suche/?=p&f=w. Accessed: 9 March 2023.

would change perceptions about translation cultures in Renaissance Britain and open up new areas of investigation. For one thing, researchers could see from data in the catalogue that translations made up a higher proportion of total book production in certain decades than previously thought, thus underlining the significance of translation in the early print landscape.[20] The new data are starting to give researchers more solid answers to some of the key questions or "regimes" of early modern translation as set out by Peter Burke, particularly "what was translated?", but also to some extent "who translates?" and "for whom?" (or at least what can be inferred about "for whom?" by looking at source and intermediary languages).[21] Some long-held assumptions were found to be in need of correction. On the question of 'what?', for example, data from the catalogue challenged notions about the dominant influence of Italian on English literature, demonstrating that there were actually over three times more translations from French in this period.[22] The *RCCC* has also led scholars to adopt broader perspectives on 'what?', encouraging them to look beyond a relatively limited canon of 'translation classics' (classical texts, translated by men, such as North's Plutarch or Chapman's Homer) and to focus instead on the translations which actually predominated, i.e. works by modern authors written in European vernaculars.[23] An early volume of work directly arising from the *RCCC* includes a ground-breaking survey of navigation manuals and another of news pamphlets, the latter showing the role of translation in establishing the international news industry.[24]

The *RCCC* is also a major development for research on women translators. It supports the latest 'contextualising' approaches to the study of women and gender, i.e. where foundational critics of the 1980s and 90s had often pursued 'gynocriticism', emphasising the social and historical conditions of women's intellectual activities and women's difference, scholars interested in women translators are now more ready to interrogate gender and view gender alongside other categories such as class and religious affiliation.[25] Statistical evidence from the *RCCC* is helping us to see that questions of 'who?' and 'what?' have less to do with gender than traditionally assumed. Burke's overview of 'who?' included a fairly typical claim that "[w]omen were relatively prominent in this field, probably because translation was considered more compatible than original writing with female modesty" and he gives a list of names for England: "Margaret Beaufort, Aphra Behn, Elizabeth Cary, Ann Cook, Ann Lok, Jane Lumley, Margaret Roper, Mary

[20] Cf. Boutcher (2015, pp. 24–27). Boutcher compares translations (using figures from the *RCCC*) and total printed output (using figures from the *ESTC*) to give translations as a percentage of the total.

[21] Burke (2007, p. 11).

[22] See Reid (2014). Reid adds a caveat about French as a common intermediary language.

[23] See Reid (2014).

[24] Cf. Barker (2013).

[25] For an overview of the scholarship, see Brown (2020).

Sidney and Margaret Tyler".[26] But the *RCCC* shows that in relative terms women were not prominent in this field: in the first half of the sixteenth century, for instance, just over forty translations by women were published compared to over one thousand by men.[27] Similarly, older assumptions about the genres or languages translated by women can now be revised. For example, it has often been observed that women favoured religious texts and this has been linked to women's circumscribed position in society (witness Carmel McCallum-Barry writing even quite recently that "to modern thinking, these women were confined in a stifling religious straightjacket").[28] Yet the *RCCC* clearly shows that translating religion was not a specifically female activity: 3752 translations which may be termed religious were published up to 1641 and we can currently estimate that women were responsible for approximately 30 of these.[29] Quantitative data provide the solid basis for further investigations into the relationship between gender and translation; those of us working on other national contexts can see too well that without such data our statements about translation trends can be only impressionistic.[30]

The *RCCC* continues to be a valuable resource for some of the latest, cutting-edge research into translation cultures in early modern Britain. For example, a recent international project focusing on intermediary or 'mediated' translations has drawn substantially on data in the *RCCC* and its (still publicly unavailable) continuation, the *Cultural Crosscurrents Catalogue of Translations in Stuart and Commonwealth Britain (1641–1660)*. The project aims to challenge the binary model of translation as a straightforward transfer from source text to target text by showing up the often much more complex lines of transmission in the Early Modern Period; the project also aims to contribute to recent research on indirect translation within Translation Studies by drawing attention to the neglected history of the phenomenon.[31] In a fascinating piece by Brenda Hosington, hard data from the *RCCC* are used to test new theories about indirect translation and show up the extent to which these theories appear valid or need to be refined when applied to early modern Britain.[32] In a related development, scholars see exciting new possibilities for studying translation in terms of place and space using digital methodologies such as network analysis and geographic information systems (GIS), and recognise the value of being able to use *RCCC* data as a starting point. Pilot studies employing network analysis tools have drawn on entries in the *RCCC* and *Cultural Crosscurrents Catalogue* and

[26] Burke (2007, p. 12).

[27] See Hosington (2014, p. 248). For a critical discussion of the translation-secondariness-womankind discourse, see Brown (2022), Chap. 1.

[28] McCallum-Barry (2016, p. 43).

[29] Data retrieved 23.03.2023. Data relating to women are taken from Hosington (2007, p. 370). It should be noted that these are only approximate figures. For instance, the *RCCC* includes separate entries for different editions of individual works and it obviously does not include manuscript translations.

[30] See Brown (2022), Chap. 3.

[31] See Belle (2022).

[32] See Hosington (2022).

it is acknowledged that the success of these methods in future will depend on access to data which are as "comprehensive" and "robust" as possible.[33]

We can wish for *RCCC*-type catalogues for other national contexts but there would be benefits of being able to access data on a larger European scale too. For in many respects, the story of early modern translation is a story which transcends national boundaries. Burke's seminal overview of "Cultures of translation in early modern Europe" (2007) is buttressed by figures and percentages but Burke comments on the lack of bibliographical resources and his sources include lists of translations published in the first half of the twentieth century.[34] More recently, scholars have reiterated the need to think transnationally: they are moving away from the study of translation within national boundaries or along familiar trajectories and emphasising instead the complexity and density of the cultural networks spanning the continent.[35] Data at supranational level would presumably help to show up more elaborate, non-linear modes of transmission such as "radiant" translation, defined by A. E. B. Coldiron as "the printing of translations of a given work in several languages in a short space of time, say, within a few years by one agent, usually a printer".[36] Radiant translation appears to have been common on the continent in the sixteenth century and can be found in a wide range of genres from religion to medicine to literary works.[37]

And even if we are working at a micro level—focusing on a more narrowly defined corpus or case-study—bigger data would enable us to contextualise better our research. For instance, we might now have an idea about the numbers of translations printed in Britain as a percentage of total printed output, and how numbers peaked in the mid-Elizabethan period, but for now we can only speculate on the reasons behind the steady rise and fall in translations. Was it linked to increased production or availability of certain kinds of texts on the continent? As Boutcher remarks: "It would be very useful to place the data in a comparative European context, to see if there are similar spikes in the proportion of translated materials produced in other European countries."[38] If we are interested in gender and translation, we have no way of knowing if patterns which emerge from the *RCCC* are particular to Britain; by the same token we cannot really compare findings from the *RCCC* with findings from the *ORDA16* because the latter includes manuscripts while the former does not. A similar point is made by Magdaléna Jánošíková and Iris Idelson-Shein about Jewish translation in the present volume:

[33] Belle and Guénette (2022, p. 198). Cf. Armstrong (2019).

[34] See Burke (2007, p. 22).

[35] See Armstrong (2019).

[36] Coldiron (2015, p. 22). I say 'presumably' here as I imagine it would depend on how such a database were structured.

[37] See Coldiron (2015, p. 23). Coldiron notes, however, that radiant translations were produced for different linguistic communities at a certain point in time which does not always mean that they were published in different countries at the same time (p. 22).

[38] Boutcher (2015, p. 27).

> We realize that the *JEWTACT* database is only the first step towards the incorporation of early modern Jewish literature in its pan-European, interreligious, and intercultural contexts. As a stand-alone DH project, the database cannot ascertain which translational norms, choices, and tastes were shared by Jewish and non-Jewish translators, and which were 'distinctively Jewish'. It likewise cannot identify regional or chronological similarities and differences between Jewish and non-Jewish translations.[39]

They, too, suggest the need for bigger-scale resources to make such comparisons and analyses possible.

10.3 Considerations

What would our ideal resource or resources look like? With a blank canvas, we might have separate *RCCC*-type databases for all countries, linked together on a platform similar to the Karlsruher Virtueller Katalog. For if a European translation database is ever developed, it should never be seen as a replacement for existing projects: there will always be benefits of being able to access a resource which covers a distinct corpus. Developers would have to find a way of building on the valuable work which has already been done without 'swallowing up' existing projects: it is important that those who have created related resources still always retain the intellectual credit for that work.

In an ideal world, would the *RCCC* be the prototype for a set of similar databases? It is clear from this volume that DH teams have been aware of the *RCCC* but modified the *RCCC* model or developed different kinds of models to suit their own purposes. Hosington herself has reflected on changes she would make with hindsight, namely not attempting to include a subject category as the one the *RCCC* has is "unwieldy and unbalanced in terms of its various components"; rethinking the liminary materials box because it is "inadequate"; including extra information on the accessibility of the translations; and having a more sophisticated search engine.[40] She has been involved in the development of the *Cultural Crosscurrents Catalogue of Translations in Stuart and Commonwealth Britain (1641–1660)* which builds on the *RCCC* but develops some aspects further: for example, some of the fields have been renamed and data have been presented in different fields or fields have been expanded (e.g. 'Liminary Materials' has become 'Paratexts' and will offer a description of all paratextual material, including images). The *Cultural Crosscurrents Catalogue* is also conceived as a relational database, in contrast to the *RCCC*, meaning that users will be able to extract data more easily, e.g. sort or download results as lists or tables.[41] For all its continued relevance for researchers, then, the

[39] Jánošíková and Idelson-Shein, Chap. 2, p. 36.

[40] Hosington (2021). See also Reid's review of the *RCCC* which highlights some slightly outdated features such as lack of hyperlinks, Reid (2020, p. 255).

[41] For a description of some of the differences, see Belle and Guénette (2022).

RCCC model would probably have to be adapted and updated before it could be regarded as a prototype for future databases.

What data would our ideal database contain? Even defining the basic parameters would require careful consideration. For a start, 'translation' is of course a contested term in the early modern context. The projects discussed in this volume give an indication of the range of potential definitions. The *RCCC* sets out clear criteria for inclusion and defines translations as publications which identify themselves as translations (even if spuriously) or publications which have been identified as translations where more than one third of the printed text is a translation.[42] The *RCCC* criteria have been modified for the *ORDA16* and the *JEWTACT* project: the *ORDA16* interprets them more broadly (e.g. there is no requirement for a certain proportion of a text to be a translation), while the *JEWTACT* database is based on a 'unique' definition which includes 'wholesale' translations fitting the *RCCC*'s criteria as well as 'fragmentary' translations of only a few lines. Some projects include unpublished as well as published translations (*ORDA16*, *Radical Translations*); in an intriguing move, the *Radical Translations* database also lists 'projected translations', mentioned in newspapers, publishers' catalogues and personal letters. In a blue skies moment, we could imagine a database which captures translation activity in a new richness, with the potential to draw attention to cases currently marginalised or unknown in translation history. (A database including fragmentary, unpublished and projected translations would include most of the women currently known to have been translating in the German states in the sixteenth and seventeenth centuries.) Could the parameters extend to intralingual translation, e.g. between different varieties of a language? Or oral translation?[43] In reality, it is perhaps the case that the smaller the corpus, the more expansive the definition of translation can be.

There would also be considerations about the format of entries. Current online bibliographies include varying information and they structure this information in different ways; contributors to this volume highlight areas with particular potential for divergence, such as whether to have separate entries for multiple editions of the same translation, or whether to include a subject category and if so which classification system to use. Only a few databases currently attempt to include information on source text(s) yet for users this is surely often crucial information, as I propose above. As research moves on, even fields which may seem quite standard start to look as if they should be modified: 'Original' is now widely regarded as an outdated term in Translation Studies scholarship for placing source and target in a false hierarchy, 'Translator' suggests a single agent responsible for the text when we are becoming increasingly aware of the collaborative nature of much translation

[42] See https://www.dhi.ac.uk/rcc/index.php?page=introduction. Accessed: 18 April 2023.

[43] On oral translation, see Burke (2007, p. 13). Cf. also the chapter by Jánošíková and Idelson-Shein, Chap. 2.

activity in this period.[44] Feminist bibliographers have recently been making the case for the addition of fields such as 'Provenance' in order to draw attention to the often invisible roles which women have played in book history.[45]

But we are not starting with a blank canvas. A European translation database would have to incorporate work which has already been done and this presents issues relating to technical infrastructure, as noted in the chapter in this volume on the *Heidelberg Bibliography of Translations of Non-Fictional Texts* (*HÜB*) by Anne Weber, Daniele Moretti, Anna Eschbach-Dymanus and Vahram Atayan. The Heidelberg team have pertinent experience of merging existing datasets into a newer model, as the current *HÜB* incorporates two previous online bibliographies of translations (Romance languages-German, Latin-German); migrating the data is a process they describe as "very elaborate and time-consuming".[46] Creating a European translation database on the basis of existing resources, which all have different designs and use a range of technologies, would be even more complicated.

Elsewhere in the DH universe, teams are finding that Semantic Web technologies, and in particular so-called 'linked open data', provide a good solution to bringing existing resources together. For instance, the *English Short Title Catalogue* (*ESTC*), an online catalogue of works published before 1801 which incorporates the holdings of around 2000 libraries across the world, has undergone a lengthy process to transform it from a MARC-based resource to a linked data resource. Carl G. Stahmer, lead developer on the *ESTC* project, explains the principles of such a project thus:

> A Linked Data architecture would take user queries from the common interface, run them against existing and reputable external sources, aggregate the results, including combining with local records, and return this aggregation to the user. It would also offer a mutually accessible endpoint or API to its own locally created records that others could query and likewise aggregate. It would, in other words, operate as part of a 'share and share alike' community of bibliographers.
>
> The Linked Data architecture offers several advantages. First and foremost, it takes advantage of the work of a wider team of scholars such that improvements made by other organizations in their linked catalogues are immediately reflected in the aggregated catalogue. This offers the potential for a distributed workforce that is both efficient and maximises local expertise. And finally, it situates the aggregating agent as part of a mutually benefiting community of scholars and bibliographers.[47]

Linked data technology seems to have been successfully deployed in a number of researcher-driven projects such as *Emblematica Online*. *Emblematica Online* is a digital platform hosted by the University of Illinois at Urbana-Champaign which provides a single point of access for searching and browsing emblem books from six

[44] 'Source' has also been problematised by Translation Studies scholars, e.g. for falsely implying that the source can ever be a single, stable entity. See Emmerich (2017).

[45] See Werner et al. (2021). On women's complex involvement in the material processes of book production (including translations), see e.g. Smith (2012).

[46] Weber et al., Chap. 6, p. 94.

[47] Stahmer (2015). Cf. Stahmer (2016).

international institutions. The resource has long been heralded by other researchers in the field for being "excellent", "comprehensive and user-friendly" and "well-designed"; it has "changed the direction of scholarship"; and in 2023 it won a Digital Innovation Award from the Renaissance Society of America.[48] Notably, the groundwork for the project was laid in the early 2000s when an international group of researchers with an interest in the digitalisation of emblem books began to meet and agreed the standards and norms which they would use when digitalising separate collections of texts at the universities of Glasgow and Utrecht.[49] A key factor for future collaboration appears to have been the decision to use Iconclass, a pre-existing classification system for visual material which suited the researchers' purposes in being detailed, multilingual, and compatible with the concepts of linked open data; in consultation with other emblem studies scholars and with the expertise of Thomas Stäcker at the Herzog August Bibliothek Wolfenbüttel, they also developed an XLM schema to describe metadata called the SPINE metadata schema. The University of Illinois team recognise that the *Emblematica Online* portal could only evolve into its current form because it was developed by a community who early on adopted practices which were both standardised and flexible enough to accommodate their varying projects and objectives: they were a "loose association of researchers […] working in loose consultation and not under the direction of a single design authority".[50] Two projects which were developed independently and at an earlier point in time using their own standards for digitisation, metadata and website design—at the Universidade da Coruña, Spain (1995, 1999) and the Ludwig-Maximilians-Universität/Bayerische Staatsbibliothek in Munich—have not been able to be incorporated into the portal.[51] Could linked open data be used to bring existing online translation bibliographies together in a horizontal structure and start creating a resource which is as useful to translation history scholars as *Emblematica Online* is for emblem studies? The case of the *Emblematica Online* project suggests that implementing linked data technology relies on a significant degree of consultation and cooperation.

10.4 Feasibility

It is possible that the technical challenges of aggregating current silos of translation data would be insurmountable. While the benefits of cooperation may be acknowledged, experience shows that in practice it is hard to achieve. As Don Waters has

[48] Higuera (2022, p. 224, 230).

[49] For a description of the project, see Cole et al. (2016).

[50] Cole et al. (2016, p. 224).

[51] See Cole et al. (2016, p. 208). Cole et al. write in 2016 about an urgent need to transform the data from the Coruña and Munich projects so that it can be added to the portal (p. 208), but this appears still not to have happened at the time of writing (2023).

observed, 'convergence' and 'collaboration' are perennially elusive goals in the DH. Convergence becomes difficult where individual teams have made idiosyncratic decisions about software and design (user interfaces, digital content, etc.); while collaboration often fails on account of the "not-invented-here syndrome", which he describes as "the conviction that 'you and I will collaborate just fine if you adopt my system and abandon yours'". Even when new technologies make collaboration look promising, teams often find it challenging to find productive ways of working together.[52]

We should also ask if aiming for a database with such a wide scope is realistic. If it is 'European', where are the boundaries of Europe? If it is 'early modern', what would be its start and end dates? The SPP 2130 Priority Programme 'Übersetzungskulturen der Frühen Neuzeit / Early Modern Translation Cultures' has chosen 1450–1800, but 1800 is in some respects an arbitrary end-point and some of the databases discussed in this volume cover the early decades of the nineteenth century for valid reasons (e.g. *JEWTACT*, *Radical Translations*).[53] The database would need to aim for comprehensiveness to provide reliable statistical data but contributors to this volume frequently allude to the gaps and errors in sources such as printed bibliographies or the difficulties in discovering relevant translations in the first place (for the *Radical Translation*s project, for instance, Rosa Mucignac and Sanja Perovic describe how the team has searched through newspapers and other ephemeral publications for translations which are often unattributed and do not appear in library catalogues). Data on source texts are even harder to piece together and there are questions about how detailed any information on source texts could ever aspire to be. Would it be practical to try to capture the various sources which a translator may have used and even the precise editions? The use of multiple sources—including but not limited to intermediary translations—was of course common but reconstructing a translator's sources is often difficult, if not impossible, although this information does sometimes emerge in the course of scholarly work on the translations.

And then there is the question of manuscripts. In recent years, researchers have been reassessing the role of manuscripts and manuscript translation in the early modern cultural landscape (at least in the British context) and this material surely deserves to have its place in the datasets we build for research. But unsurprisingly most existing resources do not include unpublished translations: some project teams considered and rejected the idea out of pragmatism (e.g. *RCCC*), others recognise it as a goal for the future (e.g. *Cultural Crosscurrents Catalogue*). More and more manuscript translations are being recovered from libraries and archives, but our knowledge about manuscript holdings is far from complete.[54] In Germany there are

[52] Waters (2013, pp. 13–14). That said, there is increasing awareness among project teams today of the FAIR principles, i.e. that data management should be guided by the principles of findability, accessibility, interoperability and reusability.

[53] For further discussion of the dates chosen for the SPP 2130, see Toepfer et al. (2021, pp. 40–41).

[54] See e.g. Gillespie (2018).

some excellent efforts to produce online inventories of manuscripts, such as the *Handschriftencensus*, which lists all German-language manuscripts held around the world from the medieval period (750–1520); the *ORDA16* is able to incorporate 29 manuscripts, drawing on the *Handschriftencensus*. There is also a new *Handschriftenportal* in development (2018–) which aims to document all manuscripts held in German collections, but it only presents cataloguing information which is currently available and there are probably many more manuscript translations waiting to be unearthed, as ongoing work on court and convent collections demonstrates.[55] The prospect of including manuscripts in a European database in any kind of comprehensive way is fairly dizzying.

We should also note that a European translation database would have to be a dynamic resource. The teams who set up large-scale bibliographies can do only a certain amount of the painstaking work needed to establish precise details about each entry and to keep entries up-to-date in the light of new research, particularly where the ambition is to include source texts as well. Bibliographies will always contain errors, but in the digital age—as Carl G. Stahmer points out—users expect errors to be rectified quickly.[56] It is becoming more common for information professionals to collaborate with scholars on the production of bibliographic records but questions remain about how the process should work in practice.[57] Some projects include a mechanism for users to contribute updates (e.g. the *USTC*) but this seems to be rare and the model needs to sustainable; the bigger the project, the harder it becomes to manage.[58] For a composite bibliography incorporating existing resources, a linked data architecture offers a better solution as it assumes individual teams will be responsible for keeping their own catalogues updated. However, while this might work relatively well when the separate catalogues are maintained by librarians, translation bibliographies to date have been created by teams of researchers and IT experts with short-term external funding. So are there successful ways to channel the expertise of the crowd? Carol O'Sullivan saw a future where scholars would increasingly be drawn in to this type of work:

> If the translation research tradition has tended in the past to adhere to the humanities model of the lone scholar patiently conducting detailed manual analysis on a more or less large body of work which nevertheless remains constrained in scope by the limitations of the

[55] On some recent discoveries, see e.g. Bepler (2017); 'Netzwerke der Nonnen' project at the Herzog August Bibliothek Wolfenbüttel: http://diglib.hab.de/edoc/ed000248/start.htm. Accessed: 20 April 2023. For the *Handschriftencensus*, see https://handschriftencensus.de; for the *Handschriftenportal*, see https://handschriftenportal.de. Accessed: 21 April 2023. German databases which incorporate manuscript translations include the *Marburger Repertorium zur Übersetzungsliteratur im deutschen Frühhumanismus* (*MRFH*) and the *Berliner Repertorium: Online-Repertorium der mittelalterlichen deutschen Übertragungen lateinischer Hymnen und Sequenzen*: https://mrfh.de/ and https://repertorium.sprachen.hu-berlin.de/page/home.html. Accessed: 8 March 2024.

[56] Cf. Stahmer (2015).

[57] Cf. Stahmer (2016, p. 31).

[58] Cf. Stahmer (2015).

> method, crowdsourcing models (already a major topic in the translation industry) offer exciting prospects for identifying, building and disseminating large datasets for the study of translation history.[59]

One dataset created through crowdsourcing was the *WomenWriters* database, which sought to provide information about the reception of European women writers pre-1900 (e.g. including translations of their works). It was a visionary project but inevitably the database was always uneven in its coverage. Driven by an energetic team in the Netherlands, the project still relied on tranches of external funding and it now appears to have been dormant for a number of years.[60]

Indeed, funding and long-term sustainability present significant challenges. Funders would need to be convinced about the value of work which is laborious and unshowy.[61] Would it be better to propose separate national bibliographies funded by national funding bodies or to embark on a bigger-scale project and bid for an EU grant? Funding organisations of course have different priorities and stipulations. In the UK, it is probably fair to say that the two main funders would not be interested in a standalone infrastructure project: there would not be enough 'research' involved for the Leverhulme Trust (for a standard Project Grant, any database element should not be more substantial than the research element) and not enough 'impact' for the AHRC. But funding is by its nature time-limited and a European database with any degree of comprehensiveness would need to be developed over many years and somehow be secured and maintained for the future. There is a tension between the time it takes to develop resources, and the moderately fast pace of research in the field, and the very fast pace of change in digital possibilities. Witness the *RCCC*, which has stood the test of time, but has features which could now be updated; its continuation catalogue will look different and contain more data; and already the two catalogues are not compatible if researchers wish to draw on data from both.[62] At the end of the day, there is also the question of who would host a European database and what would happen to the data in the longer term. A sobering article on sustainability concludes that innovation in digital projects should not obscure the crucial issue of maintenance: "Instead of promoting the rhetorics of newness and digital revolution, one should pay more attention to the danger of digital obsolescence and the massive fading away of digital data and knowledge."[63]

[59] O'Sullivan (2012, p. 136).

[60] See www.womenwriters.nl/index.php/Database_WomenWriters. Accessed: 21 April 2023.

[61] For perceptions of this kind of bibliographical work as 'Fleißarbeit', see Weber et al. (2015). See also the chapter by Weber et al., Chap. 6.

[62] See Belle and Guénette, pp. 203–204.

[63] Barats et al. (2020, parag. 47). That said, promising initiatives include the National Research Data Infrastructure (NRDI) in Germany which aims to create a permanent repository for research data. See https://www.nfdi.de/?lang=en. Accessed: 8 March 2024.

10.5 Conclusion

In sum, the vision of a comprehensive pan-European translation database is undoubtedly ambitious, and very possibly over-ambitious. While such a database might be a welcome resource in theory, there are considerable challenges in trying to build an umbrella database, not least technical challenges. Even aiming for a set of national databases along the lines of the *RCCC* may be too ambitious, particularly for countries where one or more relevant resources are already in existence or in development.

At the least, it seems desirable for future resources to be planned with some degree of international consultation. The *Emblematica Online* project clearly demonstrates the advantages of research teams reaching agreement at an early stage about standards and design. It is conceivable that only resources developed from this starting point could then be aggregated using linked data technology (with the possibility of others being added retrospectively—although note that this still has not happened in the case of *Emblematica Online* and the Coruña and Munich emblem projects). Nevertheless, it is not clear how and where such consultation might take place, given the diversity of our field, the timing of projects, and our various research agendas.

Another key lesson seems to be that any consultation process should involve not just researchers and IT experts but also users, i.e. the wider community of translation history scholars. The developers of *Emblematica Online* made a purposeful effort to engage with other scholars from the outset and to test the resource formally with users unconnected to the project as it was evolving. For instance, after the first phase of development, the team undertook interviews with emblem studies scholars, followed by a series of testing sessions in the University of Illinois Library's usability lab with participants representing a wider range of potential users. In the interviews, scholars were asked about how they used or might in future use *Emblematica Online* in their research and teaching; the data gathered through the interviews informed the design of the testing in the lab, where participants were asked to spend around 40 minutes navigating the portal as they carried out a set of designated tasks and to talk aloud as they did so, with the sessions being followed up with post-task interviews.[64] This process gave those involved in the development of the resource important insights into how it would be exploited by others and led to changes to various features such as interface design and functionality.[65] The user-centred approach of the *Emblematica Online* team could surely be replicated to maximise the value of digital tools in our field and to ensure that the considerable effort involved in their development supports research in the most effective ways. At the moment, we do not even really know who uses the current available resources, and how, and what resources the scholarly community would find helpful in future.

[64] See Green et al. (2015).

[65] See Cole et al. (2016, pp. 227–228).

In the end, collaboration seems to be crucial. The fact that information is freely available is not enough to advance research. The fact that ever-more sophisticated technology is available is not enough either. It is only by searching for those elusive routes to collaboration that any form of a European translation database could ever be realised in future.[66]

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[66] Cf. Cole et al. (2016, pp. 228–229).

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