Designing digitally-driven integrative interdisciplinarity: Professionalism between protocol and judgement

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Abstract

While there is a growing discussion of the importance of developing collaborative workflows for interdisciplinary research within DH, there is a lack of blueprints and consideration of specific expertise. This paper conceptualizes the practice of what we tentatively call *digitally-driven integrative interdisciplinary project design* in order to highlight a certain professional practice for integrating collaboration between technical expertise and traditional HSS researchers when developing research project applications, digital resources, etc. We begin by highlighting the need for *protocol* for workflow-oriented approaches to integrative interdisciplinary collaboration, but also an embodied expertise in need of being put into focus in discussions of integrative workflows within digital humanities. Then, we argue that *judgement* is also a crucial but often overlooked part of the professionalism involved. We conclude by discussing how to further develop the conceptualization of interdisciplinary digital project design and the expertise involved..

1. Introduction

It is well-known that although Digital Humanities (DH) projects combine humanistic and technical expertise in different ways, interdisciplinary collaboration can be challenging due to how different disciplinary rationales dovetail. It has been a worn truism that while computer scientists tend to be interested in pushing methodological development, researchers in the Humanities and Social Sciences (HSS) primarily seek to apply disciplinary methods to digital scholarship. However, it has also been argued that DH has given rise to a 'third culture', as imagined by C.P. Snow [1], where people from two essentially different disciplinary cultures take strides towards collaborating and aligning perspectives [2]. There is also an emergent DH discussion around developing and conceptualizing so-called integrative interdisciplinary workflows. For instance, the concept of "agile hermeneutics" [3] has been used to designate a collaborative process in which HSS scholars and data analysts are engaged in a constant dialogical and reflexive relationship [4]. Nevertheless, there still remains a palpable lack of blueprints and considerations of 'embodied' expertise for developing interdisciplinary DH projects. As Ahnert et al. [5] note in a recent study, "new projects and initiatives expend a lot of energy in their start-up period trying to establish collaborative values and project management strategies, often reinventing the wheel in the process".

Partly in response to Underwood's [6] call for the need within DH to make explicit, name and reflect upon our partly tacit working methods, the present paper highlights our conceptual work on the practice of *designing digitally-driven integrative interdisciplinary projects*, designating a certain approach to outlining and integrating collaboration between technical expertise and 'traditional' HSS researchers when developing, among other things, project applications and digital resources (tools, databases, etc.), involving multidisciplinary teamwork. Etymologically, the word *design* comes from the Latin word *designere*, meaning, among other things, to 'mark out', 'point out' or 'devise'. The Italian verb

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to do with both the spheres of 'planning' and 'doing' [7]. Nowadays, the term 'design thinking' is used to refer to a set of procedures in the process of designing and project organization in a general sense as well as to the body of knowledge developed about design ability [8] [9].

Against this background, we propose the notion of digitally-driven integrative interdisciplinary project design to put focus on an emergent form of expertise related to the processes of what has been called the fractured trading zones of DH [10]. On some level, this expertise has something in common with what Hunter labels 'bridge people', who are either fully competent in the 'two cultures' or at least 'bilingual' in that they can speak the languages of the two cultures [2]. Our paper concerns the latter of these two categories, directing attention to a 'professionalism' aimed at outlining and integrating collaboration between technical expertise and HSS researchers. On another level, this expertise can be described in terms of critical digital humanities 'in practice' in the sense that it entails a continuous reflection and dialogue on the computational methods, tools, databases, etc, as well as a concern for the socio-cultural organization, production and dissemination of knowledge [11]. To be clear, rather than discussing skillsets or best practices for project design, *we seek to conceptualize core aspects of a certain interdisciplinary-oriented professionalism that we argue is in need of being put into focus* in discussions of workflows for integrative interdisciplinary teamwork within DH. In this, we draw upon the experiences since 2015 as senior staff at the Gothenburg Research Infrastructure in Digital Humanities (GRIDH, formerly the Centre for Digital Humanities) at the Faculty of Humanities at the University of Gothenburg of initiating and designing research project applications and digital resources in collaboration with HSS researchers as well as working with the e-infrastructures Huminfra and Swe-Clarin.

1.1. Disposition

We begin our conceptualization of digitally-driven integrative interdisciplinary project design by discussing what might be called *protocol*. Engaging with Oberbichler et als. [12] discussion of an integrative approach to multidisciplinary teamwork centered around historical data, we highlight the need for structuring collaborative workflows, but also for grounding the application of protocol in embodied expertise. Then, drawing upon philosopher of education Gert Biesta's writing about *judgement* [13] as a crucial but often overlooked part of professionalism, we argue that the exercise of judgement is also a critical part of digitally-driven integrative interdisciplinary project design. To concretize our discussion, we will briefly comment on some phases in the design of an ongoing mixed-methods project that brings together DH and HSS researchers, discussing how the integrative professionalism involved requires a dialectical relationship between protocol and judgement. We conclude by making some comments about how to further develop the conceptualization of digitally-driven integrative interdisciplinary project design and the professionalism involved.

2. Integrated interdisciplinary research and protocols

Many commentators on DH have argued for the need of robust results based on not only thorough engagement with data from a computational view, but also collaborative research grounded in interdisciplinary and mixed-methods approaches [11] [14]. Against this background, Oberbichler et al. [12] make a distinction between 'multidisciplinary collaboration' and 'integrated interdisciplinary research' within DH in the sense that while the former tries "to build something in between the disciplines so they share more than just the problem", the latter mean that "people from different scientific fields come together, collaborate, and study a common question or problem with the goal of reaching common conclusions". Here, one should, of course, keep in mind the long-running and often contradictory debates within academia about the specific meaning of terms such as multi- and interdisciplinarity. However, rather than the specific choice of terminology, most important in our context is the character and the quality of these collaborative processes. Oberbichler et al. argue that integrated interdisciplinary research "requires going deeper than just saying something about a phenomenon from different perspectives" and this also includes "the understanding of how each field works and which approaches are used for problem-solving" [12]. "In order to provide a process for successful collaboration and communication, the differences and commonalities between disciplines

need to be considered. Merging of applications, tasks, and traditions, involving mixed method approaches as well as increased interaction between the disciplines, has been identified as a possible common objective" [12], they write.
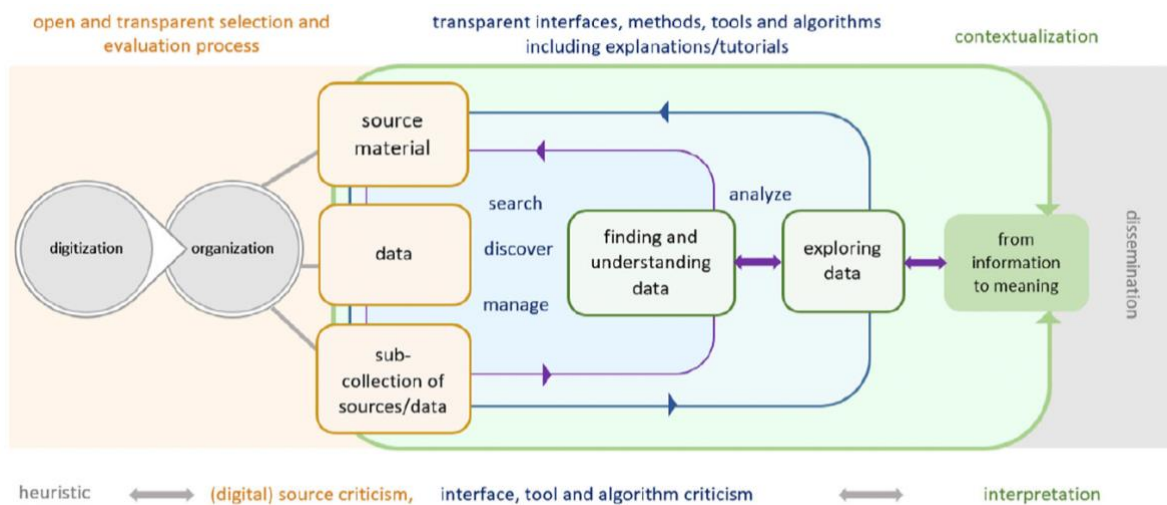

Figure 1: Interdisciplinary digital hermeneutics workflow by Oberbichler et al. [12].

To achieve an integrated interdisciplinary research process, Oberbichler et al. propose a workflow (Figure 1) that emphasizes the importance of iterative collaborative steps between data analysts and HSS researchers to gradually better understand, explore and analyze the data, methods and tools in focus. In our work developing a range of project applications and digital resources at GRIDH and the e-infrastructures Huminfra and Swe-Clarin, we have found that an integrative workflow following iterative steps centred on the data in focus roughly in line with the one proposed by Oberbichler et al. works well for facilitating a dialogue between the parties involved to gain deeper insights into the data and each other's concerns. However, our point is not to argue for their model as an 'ideal' or 'all-purpose' tool. For instance, one could discuss if not the category digitization should also be included in the iterative segment of the workflow (Figure 1), since this is hardly a static and fixed process [15]. Rather, the point we want to make is that following some kind of workflow and protocol is key in the practice of digitally-driven and integrative interdisciplinary project design, as it provides a collaborative framework for finding common ground and shared understanding of the different research perspectives and tasks involved.

However, before proceeding, we need to think about the somewhat overlooked issue of integrative expertise. Oberbichler et al. [12] propose that their model could serve as a starting point for planning future projects, but they describe it "as a concept rather than a concrete architecture". Thus, while highlighting a set of protocols as well as appropriate interdisciplinary skills – what they call an "art of in-betweenness" – notably, these elements are 'free-floating' rather than 'embodied' in the sense that they are not associated with any distinct functions or roles in the model. Here, we could return to Hunter's notion of bridge people [2] who in the context discussed by Oberbichler et al. could be understood as people in some way proficient in in-betweenness. Thus, from the perspective of digitally-driven integrated interdisciplinary project design, it seems reasonable to argue that much time and energy could be saved by making sure that every project in some way involves bridge people. However, there is something 'static' with the notion of bridge people in the sense that it seems implied that they somehow naturally manifest their competence in the two cultures, and we would like to rather stress the point of understanding both the application of protocol and in-betweenness dynamically, as a 'doing' rather than a 'being'.

3. Professionalism and judgement

To get a better understanding of the application of protocol and the art of in-betweenness in the context of mediating different disciplinary rationales and facilitating collaboration in DH projects, we can turn

to a notion of educational philosopher Biesta [12] to understand the process as enacting a certain acquired professionalism. Arguing against a general tendency to instrumentalize teaching as the "application of protocols", Biesta [13] points to the general misconception that protocols and guidelines can tell teachers "what they should do on the assumption that particular forms of research can provide clear and unambiguous knowledge about 'what works'". Rather, Biesta stresses the crucial importance of judgement, in that teachers as professionals bring something critical to the educational situation as all desirable education requires instant and spontaneous judgement to be made about what to do, both on a general level and in concrete situations.

Transferred to our context, we argue that digitally-driven integrated interdisciplinary project design can only be organized so far according to protocol or, for that matter, according to the idea that bridge people somehow naturally mediate convergence between the two cultures and implement an integrative workflow. Rather, the process will, to some extent, depend more on a specific professionalism being enacted. Similar to how Biesta conceives teaching as an act of judgement, we suggest that it is productive to understand the application of protocol and in-betweenness as based on acts of judgement. Here, it might be useful to remember a 'classic' definition of professionalism as an approach tied to sets of specialized and exclusive knowledge and skills [13] [16]. Thus, similar to what Biesta writes about education, bridge people will constantly be "confronted with situations that, in some respects, are always new and hence call for judgement" [13]. Furthermore, we should keep in mind that professionalism is also tied to relationships of knowledge-based authority and trust. Authority can, of course, be questioned with regards to the relationships between professionals and their 'clients', but it nevertheless provides a justification for judgements made. In the context of an integrated interdisciplinary research process, there is arguably judgement to be made about, among other things, the balance between the different steps in a workflow, the identification of aligned goals and what needs to be done (and not done) at a certain point. As Biesta [13] notes, the whole point of professional practices "is that they do not just service the needs of their clients, but also play a crucial role in the definition of those needs".

4. Enacting protocol and judgement: The SweTerror project

We will now turn to a brief case study to concretize our discussion and discuss our enactment of protocol and judgement in two specific phases in the digitally-driven integrated interdisciplinary research project 'Terrorism in Swedish politics: A multimodal study of the configuration of terrorism in parliamentary debates, legislation, and policy networks in Sweden 1968–2018' (SweTerror, 2021–2026) [16]. First, we will comment on some elements of the design of the project application and, then, the re-design of research questions during the ongoing research process.

4.1. Designing an interdisciplinary project team

The SweTerror project originated from a call in 2020 from the DIGARV (Digitisation and Accessibility to Cultural Heritage Collections) research program for data-driven HSS research based on digitized material available in Swedish GLAM institutions. Drawing together an interdisciplinary team from, among other things, digital humanities, terrorism studies, history, linguistics, political science, language and speech technology, the SweTerror project was designed as a comprehensive mixed methods study of the political discourse on terrorism, as represented by both the text transcripts and audio recordings of Swedish parliamentary debates. In the assessment, the Swedish Research Council (Vetenskapsrådet, VR) lauded the composition of the research team, stating that the SweTerror project "creates a real opportunity to change the nature of scholarship on the politics of terror" by bringing together a "remarkably interdisciplinary team of researchers" [18].

The process behind the project application began with the core project partners (DH scholars Brodén and Fridlund, and language technology scholar Edlund) jointly drawing up the overarching scope of the project in relation to the digitized material in focus, that is the digitized records from the Swedish Parliament (both speech and text), partly in line with the proposed workflow in Figure 1 that takes the data as its point of departure for dialogue and organizing. However, in the context of the practice of digitally-driven integrated interdisciplinary project design, it is also clear that the enactment of protocol

and judgement tended to overlap even at the early stage of creating the application. For instance, in the enrollment of researchers, we (Brodén and Fridlund) had to more or less rely on judgement alone when tasked with putting together an interdisciplinary project team with broad and complementary domain and methodological expertise. Essentially, our bringing together a team of HSS researchers and data analysts had more to do with a series of judgements about what kind of research the data enabled and the specific expertise required, rather than application of any distinct interdisciplinary protocol.

4.2. Designing interdisciplinary research questions

A key part of the writing of the project application was the collaborative, iterative negotiation of the research questions, with the questions gradually emerging from a critical dialogue within the team. Among other things, the research questions were as much the result of a negotiation between the analytical interests of the HSS researchers as of the data analysts' view on what analysis the data would enable. In this process, our experience as bridge people played an important part, insofar as we were able to acknowledge the different disciplinary perspectives and also, to some extent, mediate between the 'two cultures'. Without going into details about our individual backgrounds, we should note that we as senior researchers in the humanities share not only substantial experiences of designing externally-funded interdisciplinary projects and conducting research in different academic contexts, but also a certain approach toward collaboration in the sense that we emphasize the importance of problem solving over disciplinary interests. Since most team members had not collaborated before, as bridge people with certain experiences and sensibilities we also sought to build in some kind of a relationship of trust in our judgement that, for instance, played a part in the writing of research questions when deciding trade-offs, the use (or not) of domain specific concepts, exact formulations, etc.

However, after the project was approved and started, the team also had to, to some extent, re-design and re-negotiate the collaborative tasks necessary for answering the research questions, not least in the process of co-writing. For instance, in writing conference papers, the HSS researchers' work very much rested on what specific data the data analysts could extract from the parliamentary corpora at that particular time, since these are in a continuous flux subject to ongoing curation [19]. This called for facilitating a interdisciplinary dialogue within the team, but also judgements about how much the data needed to be curated, refined and improved in order to allow valid conclusions to be drawn about the parliamentary discourse on terrorism based on different disciplinary standards and concerns. Furthermore, this included potential 're-calibration' of the research questions in relation to the specific data available.

5. Conclusions

In this paper we have sought to conceptualize core aspects of an interdisciplinary-oriented expertise that is in need of being put into focus in discussions of collaborative workflows within DH. We have proposed the practice of digitally-driven integrative interdisciplinary project design to highlight a practice aimed at organically integrating collaboration between technical expertise and traditional HSS researchers when developing project applications, digital resources, etc. By discussing the need for enactment of both protocol and judgement we have delineated crucial and complementary distinctions concerning the professionalism involved. To concretize the argument, we have discussed two phases in the design of the SweTerror project that illustrates how this practice is grounded in an overlapping, dialectical relationship between protocol and judgement.

However, while we have addressed the core elements of protocol and judgement, the practice of digitally-driven integrative interdisciplinary project design needs to be developed further and in more detail. Among other things, since the notion of bridge people concerns both those who are either fully competent in the two cultures or at least bilingual, further elaboration is required on how these different categories relate to the workflows and professionalism discussed here. Likely, the notion of seniority and experience also feeds into this context and needs to be further taken into account on some level. Furthermore, in the paper we have used the terms 'technical expertise' and 'data analysts' in a somewhat monolithic way, whereas in practice these categories are often inhabited by people with different

degrees of interdisciplinary experience and expertise. Just as we as humanities researchers through our interdisciplinary experience and expertise are partly bilingual in the two cultures, the same applies to data analysts, who can be partly or fully 'fluent' in HSS research concerns. Thus, there is a need to deepen the discussion both about the conceptualization of digitally-driven integrative interdisciplinary project design and about the distribution of the professionalism described in this paper among different individuals and institutions in the field of DH.

Acknowledgements

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