



Variants

The Journal of the European Society for Textual Scholarship

14 | 2019
Varia

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Electronic version

URL: <http://journals.openedition.org/variants/1070>

DOI: 10.4000/variants.1070

ISSN: 1879-6095

Publisher

European Society for Textual Scholarship

Printed version

Number of pages: 41-74

ISSN: 1573-3084

Electronic reference

Merisa Martinez, Wout Dillen, Elli Bleeker, Anna-Maria Sichani and Aodhán Kelly, « Refining our conceptions of 'access' in digital scholarly editing: Reflections on a qualitative survey on inclusive design and dissemination. », *Variants* [Online], 14 | 2019, Online since 10 July 2019, connection on 12 July 2019. URL : <http://journals.openedition.org/variants/1070> ; DOI : 10.4000/variants.1070

The authors

Refining our Conceptions of Access in Digital Scholarly Editing: Reflections on a Qualitative Survey on Inclusive Design and Dissemination.

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and Aodhán Kelly*

Abstract: In this paper we explore layered conceptions of access and accessibility as they relate to the theory and praxis of digital scholarly editing. To do this, we designed and disseminated a qualitative survey on five key themes: dissemination; Open Access and licensing; access to code; web accessibility; and diversity. Throughout the article we engage in cultural criticism of the discipline by sharing results from the survey, identifying how the community talks about and performs access, and pinpointing where improvements in praxis could be made. In the final section of this paper we reflect on different ways to utilize the survey results when critically designing and disseminating digital scholarly editions, propose a call to action, and identify avenues of future research.

Introduction

ACCESS, IN ALL ITS ITERATIONS, continues to shape the discourse of textual scholarship as the field grapples with new methods and models of the digital scholarly edition (DSE).¹ Using an amalgamation and paraphrasing of two definitions posed by Patrick Sahle (2008; 2016), we define a digital scholarly edition as an information resource which offers a critical representation of (normally) historical documents or texts and which is guided by a digital paradigm in its theory, method and practice. Discourse around digital scholarly editions and conceptions of access has been ongoing among textual scholars for the past twenty years. In 2009, John Lavagnino reflected on editorial practice in 1997, citing the tension – present even then — between creating digital editions for a scholarly audience and a broader readership. He notes that at the time, there were few digital editions with elements that acted as “an invitation to look at the texts along with the editor” (Lavagnino 2009, 67). Summarizing an argument made by Jerome McGann in 2001, Susan Schreibman writes that “it was only when textual scholars had the opportunity of editing in a medium other than the book that they were able to realize the constraints of the medium imposed on them” (2013). The perceived openness of the web, however, also brought a new

¹ The authors wish to acknowledge that the work for this article was funded in part by the Digital Scholarly Editions Innovative Training Network (DiXiT ITN), a Marie Skłodowska-Curie Action, underwritten by the EU Seventh Framework Programme (FP7/2007-2013), REA grant no. 317436.

set of challenges for editors. The understanding of who exactly is involved in the creation of editions expanded to include not just editors and publishers, but students, software and web developers, computer scientists, librarians, archivists, project managers, and digitization specialists. Indeed, as Martha Nell Smith (2004) asserts, “we have entered a different editorial time, one that demands the conscious cultivation of many hands, eyes, ears, and voices”. Perhaps the most notable change from the analog to the digital has been the extended focus on users. Nell Smith goes on to state that “[w]hen editors make as much about a text visible to as wide an audience as possible, rather than silencing opposing views or establishing one definitive text over all others, intellectual connections are more likely to be found than lost”. Such discussions illustrate the history of accessibility issues for editors who have moved from the well-established norms of the print paradigm to the ever-changing digital publishing environment.

While “accessibility” is a highly-cited term in digital scholarly editing, it generally refers to making data (Sahle 2014) or source materials (Martens 1995, 222) available to users rather than to making data more accessible to different types of users — which is the predominant definition of the term in the context of software and web development (W3C 2018). This basic distinction indicates that access is a multilayered concept in the digital humanities and that to avoid discussing the topic at cross-purposes further refinement of the term is needed. This paper frames a discussion around a broader definition of access in relation to digital textual scholarship by examining pertinent questions in the field: What type(s) of materials do we make accessible in our digital scholarly editions? How? And to whom? Answering these questions will help us to pinpoint digital scholarly editing praxis as it stands at the present time and to aid in the continued development of praxis for a new generation of textual scholars who will work primarily, if not solely, on *digital* scholarly editions.

We address these issues by building on our panel discussion at the Digital Humanities 2017 conference in Montréal, Canada (Sichani et al. 2017). At this event, we explored the concept of access in the field of digital scholarly editing in terms of (web) accessibility, usability, pedagogy, collaboration, community and diversity. To gain some preliminary insights about community perspectives before our panel, we released a qualitative survey on inclusive design and dissemination in early July 2017. In return, we received rich, nuanced data from the community and decided to leave the survey open until November to attract more responses. Collecting and interpreting this data allowed us to engage in much needed cultural criticism of the discipline (Fiormonte 2012, Liu 2012 and Posner 2016) by encouraging practitioners within the digital scholarly editing community to critically reflect on what the term “access” means in both the literal and more abstract senses of the word.

During the process of aggregating and analysing survey responses from the community, it was apparent that our dataset contained an interesting array of approaches to access taken by a broad cross-section of practitioners with different backgrounds in the field (albeit a sample with a clear bias towards European

and Northern American experiences, see Figure 3.1). We aim to communicate a broad overview of these data and consider their implications for the five thematic layers of access that were covered in the survey: (1) dissemination, (2) Open Access and licensing issues, (3) access to the code of the edition, (4) web accessibility and usability, and (5) inclusivity and diversity.

Inclusive design and dissemination in Digital Scholarly Editions: A survey

Our survey, “Inclusive Design and Dissemination in Digital Scholarly Editions”, was designed and hosted using SurveyMonkey.² The survey was conducted between July and November 2017. We distributed it through a series of relevant mailing lists, social media portals, and via personal emails to practitioners in the field in our own networks.³ In total we received 219 responses, 109 of which completed every required question in the survey — resulting in a completion rate of 49.7%. Given the length of the survey (with 42 questions distributed over 14 pages, which most respondents took over 40 minutes to complete), this was a healthy completion rate.⁴ Taking into account that 65 of these 109 respondents (or almost 60%) expressed their willingness to participate in a follow-up interview, it is clear that the issues raised in the survey are of considerable interest to the community — or, at least, to that portion of the community that we were able to reach with our survey.

² We have deposited a CSV file of the survey’s raw data (uncorrected, but scrubbed of respondents’ personal information, following GDPR compliance requirements) in the Open Access Humanities Commons repository, alongside an accompanying PDF file with graphical representations of the survey’s statistics. The redacted datasets can be found here: <http://dx.doi.org/10.17613/c3m9-kq76> (csv) and here: <http://dx.doi.org/10.17613/x4mx-x394> (pdf).

³ The following mailing lists were used: Humanist Discussion Group; Digital Library Forum/Council on Library and Information Resources (DLF/CLIR); Text Encoding Initiative (TEI-L); CODE4LIB; Scholarly Editing Forum (SEdit-L); Textual Scholarship; Association for Digital Humanities Organizations (ADHO); Society for the History of Authorship, Reading and Publishing (SHARP-L); Swedish School of Library and Information Science (SSLIS); Digital Humanities Benelux; Digital Humanities in Flanders (DHu.F); Digital Research Infrastructure in the Arts and Humanities-Belgium (DARIAH-BE); Nordic Network of Editions (NNE); Digital Humanities Summer Institute (DHSI); Global Outlook: Digital Humanities (GO:DH); the National Endowment for the Humanities (NEH)’s “Make Your Edition” workshop mailing list; and the Digital Scholarly Editing Innovative Training Network (DiXiT ITN).

⁴ The duration was arrived at by comparing SurveyMonkey’s “Time Spent” values for all respondents, which we rounded off to the closest half minute mark. This time does not necessarily reflect “active” time spent on completing survey answers, but measures the distance between the moment when respondents start and complete the survey. Values for completed surveys ranged between six minutes and over a week, and had median of 41.25 minutes.

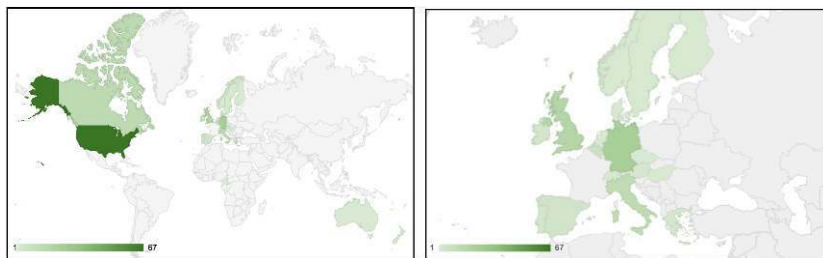


Figure 3.1: Demographic distribution of survey respondents (left); zooming in on distribution in Europe (right).

As we were purposefully targeting respondents who had experience using and/or creating digital scholarly editions in the email and social media messages we distributed, our sample contained a marked professional bias. Within that group, the demographic data showed a clear majority of respondents who self-identified as digital scholarly editors and librarians, and less participation from those who referred to themselves as technical support (e.g. software development or interface design), or from users of digital scholarly editions.⁵ As mentioned above, our respondent pool also contains a clear bias towards Northern American (82 respondents, or almost 37.5%) and European participants (106 respondents, or almost 48.5%), with only three respondents (or just over 1%) from the rest of the world (see Figure 3.1).⁶ We expected this bias, as the field is already largely skewed toward these locations, and because of the dissemination channels we used (Twitter, Facebook, Western mailing lists, etc.), our personal network (which we used to send reminders about the survey), and the fact that the survey itself, as well as all our follow-up communication about the survey, was written in English.

Although this bias needs to be taken into account in the survey's analysis, it does not pose an intrinsic problem for our results. As a primarily qualitative survey, this is in essence an exploration of how the concepts of access and accessibility are perceived in a sizable subset of users and practitioners, and we were more interested in individual positions and motivations than in exposing trends and making generalizing claims about the field itself. Thus, we included responses from participants who did not complete the survey: their opinions on the specific questions or subsections in which they were interested still provided us with equally valuable feedback, especially in a reflective study like this one.

The survey was structured around a series of themes relating to aspects of access and/or accessibility. After a demographic section (Q1-3) and a section

⁵ Although DSE creators are often also users — and perhaps arguably even the primary target readership — of other DSEs, so the roles can be fluid.

⁶ Twenty-eight out of 219 respondents did not supply sufficient information to determine their nationality.

designed to gauge the respondent's involvement or role in the development or publication of digital scholarly editions (Q4-6), the survey first focused on Open Access and licensing issues (Q7-11); access to the underlying code and software of the edition (Q12-18); cataloging and dissemination of digital scholarly editions (Q19-21); web accessibility (Q22-30); and inclusivity (Q31-37); before ending with a general question about digital scholarly editions, and an inquiry whether the respondent had any additional comments, or was open to the possibility of a follow-up interview (Q38-42).

In the welcome page of the survey, we established a baseline vocabulary for our respondents by providing short definitions of some of the most important concepts that we used throughout the survey. These were:

Access: *the ease or difficulty of users finding and interacting with digital scholarly editions.*

Inclusivity: *the focus on representing and including people/groups who would otherwise be marginalized.*

Web Accessibility: *the design of digital interfaces for use by people with (in)visible disabilities.*

Digital Scholarly Edition: Our definition includes (but is not limited to) an amalgamation and paraphrasing of two definitions offered by Patrick Sahle (2008 and 2016): *A digital scholarly edition is an information resource which offers a critical representation of (normally) historical documents or texts and which is guided by a digital paradigm in its theory, method and practice.*

Since we were primarily interested in the respondents' individual perspectives, we encouraged them to provide their own definitions for these concepts at distinct points in the survey (Q7, Q31, Q22, and Q38, respectively). The fact that many of these personal definitions deviated strongly from our own (and from one another) confirmed our premise that access is a layered concept that is used to mean different things in different contexts. As will be elaborated below, these differentiations proved to be fundamental points of discussion, particularly in relation to web accessibility, and must be taken into consideration for the analysis of the survey's results.

Challenging the concepts of access in Digital Scholarly Editing

1. Dissemination

We begin this discussion by approaching access from the broadest possible sense, which corresponds to the definition we gave at the start of our survey. Access to a digital scholarly edition in the sense of interacting with the edition is inherently linked to its discoverability. The challenge of discoverability extends far beyond the realm of digital scholarly editions alone; it is an issue affecting digital scholarly outputs throughout the academic world. As the Ithaka S+R research team observed: "Digital projects on campuses live everywhere! This extreme decentralization adversely affects their discoverability. [. . .] There is often no single place for users to find digital projects and some projects can too

easily slip from view" (Maron, Yun and Pickle 2013, 4). The digital ecosystem of scholarship continues to increase in size and complexity, while patterns of information retrieval also morph and mutate, which makes the effective dissemination of digital scholarly editions extremely challenging, particularly for those editors who are making the transition from print to digital editing, and for new students in the discipline.

The purpose of the dissemination section of the survey was to gain insight into the means through which respondents make their digital scholarly editions known to users. This also highlights the extent to which the respondents are aware of the various ways that users discover and use their resources. We opened this section by asking how the DSEs with which respondents were involved were disseminated and marketed (Q19). We provided a list of options and asked respondents to choose any or all that applied in their case, and to specify if they used another method not in the list. Interestingly, despite the digital nature of their projects, it was evident from the results that traditional methods of promoting editions remain the most prevalent approaches. By "traditional" we mean methods that existed in the analogue pre-digital turn. The top four results from the list were all in this category: word of mouth (67%), conference presentations (67%), citations in articles written by the team (64%), and citations by others (58%). The two most used digital methods of promoting DSEs were social media (57%) and Listservs (42%).

A more interesting, and perhaps slightly concerning, observation from the results was the relatively less commonplace usage of existing digital catalogues to make digital scholarly editions discoverable. Only 29% of those who responded chose the option of "through catalogues in one or more memory institutions". Essentially, if students and researchers were to rely on institutional or aggregated catalogues (e.g. NINES or Europeana) as principal finding aids, they may struggle to find digital scholarly editions that even originated at their own institutions. While some digital scholarly editions are created in collaboration with librarians or archivists, there are many created by scholars working independently from such institutions that may benefit greatly from the expertise of LIS professionals in order to make the editions more findable through effective cataloguing. One of the biggest challenges faced in that domain of digital scholarly editions is classification, a concern which, in the words of Elena Pierazzo "pervades digital scholarship" (2015, 6). The difficulty for digital textual scholars to find common ground about whether a digital project should be deemed a digital edition, library or archive is not merely a semantic squabble, but a practical bibliographic issue with substantial impact on discoverability, and thereby dissemination in general.⁷

The two most prevalent catalogues of digital scholarly editions, one created by Patrick Sahle (2016) and the other by Greta Franzini (2016), were among the lowest scoring results on the list provided at 16% and 12% respectively (a further 12% of respondents found their editions in other catalogues). Some

⁷ See Kenneth Price 2009 for a detailed discussion of this topic.

respondents commented that they had never heard of the two resources, while others replied that they now intended to ensure their digital scholarly editions would be cataloged there in future. In Q20 we asked respondents if they were satisfied with the dissemination and marketing of their edition(s). Of the 91 responses we received, 41 responded in the affirmative, while 26 said they were not satisfied (the remaining 24 gave more ambiguous answers). Opinions on who should be responsible for the dissemination of a digital scholarly edition are often varied and this is clear from the respondents' comments. In a print paradigm this is much clearer, as publishers have a well-established role in the marketing and distribution of printed editions in much the same way that libraries have a clear remit to catalogue them. The digital avenues of distribution have blurred those lines, as the distinct role of publisher has all but disappeared in a digital context. It remains unclear whose responsibility it is to take on this marketing and distribution role. One respondent put it quite succinctly when they said: "[N]o one knows whose task it is to market digital scholarly editions" (R116).⁸

The responses we received indicate that there remains a need for further reflection and discussion in the field about how digital scholarly editions are disseminated to and made findable by users. Aside from the ambiguity surrounding how roles and responsibilities in this area should be assigned, there is also a general need for increased awareness among the creators of digital scholarly editions regarding the variety of dissemination channels at their disposal as well as for information about retrieval habits of users. These needs are not surprising, given that many of these issues are new to editors who previously relied on print-based publishers to tackle distribution, and for whom papers and presentations were the primary avenues of knowledge-sharing. While classification and cataloguing challenges will not be solved by the digital scholarly editing community alone, they cannot be neglected, and are only likely to improve through deeper and more critical collaboration with academics in other disciplines, with archivists and with librarians.

2. Open Access and licensing issues

Moving from a broader conception of discoverability, we now explore the definition of access most often used in the field: that of Open Access (OA) and its inextricable link to licensing issues. Coined in 2002 by the Budapest Open Access Initiative to mean "the free and unrestricted online availability" of published and pre-published research (Chan et al. 2002), OA builds on a longstanding tradition of Open Source (OS) software development on the one hand and on *ad hoc* practices of academic self-archiving on the other. Although the term is now commonly used in relation to scholarly communication and digital scholarship (Suber 2012; Eve 2014), there are still diverging interpretations of OA in the field

⁸ R+number is used to anonymize respondents, and refers to respondent number to the overall survey.

of digital scholarly editing as well as a confusing number of coexisting standards and strategies for licensing scholarly content (Sichani 2017, 440). Given that practitioners of digital textual scholarship and digital scholarly editing are working particularly with historical and archival-based textual material, and are therefore likely to be confronted with licensing restrictions, this section is intended to offer some insight into the developments of Open Access in these communities of practice.

Rather than documenting what kind of licensing restrictions or copyright status digital scholarly editions typically have, however, the licensing section maps our respondents’ awareness regarding issues and levels of Open Access.⁹ Because we wanted to assess the community’s engagement with the topic, we designed this section with two tracks of questions to the subjects of OA and licensing that actively avoided guided replies. To assess the importance of licensing issues with regard to digital scholarly editions within our sample, we kept all questions in this section optional.¹⁰ The fact that just over two-thirds of all respondents (149 out of 219) answered these optional questions and provided useful comments was a clear indication that these are indeed issues important to the digital scholarly editing community.

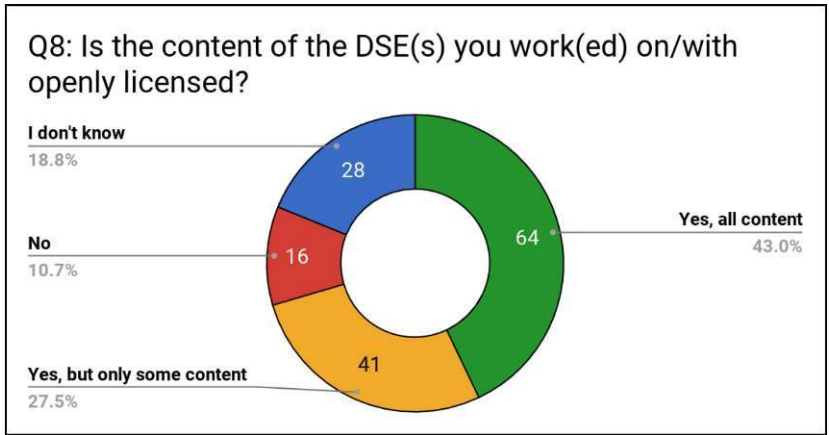


Figure 3.2: Response breakdown of Q8.

We began by asking participants whether the content of the digital scholarly

⁹ For more information on these issues, see Dillen and Neyt 2016 and Sichani 2017.

¹⁰ We also tried to keep the phrasing of the questions as neutral as possible and strategically combined a series of closed and open-ended questions, offering respondents the option to elaborate on their perspective in a comment box.

edition(s) on which they work(ed) (as creators), or with (as users), is openly licensed (Q8). The purpose of this question was twofold: (a) to indicate awareness of the licensing and OA landscape in general and (b) to provide crucial data of the specific licensing status of their DSEs. As Figure 3.2 shows, while the majority of respondents (105, or 70%) answered that the content is openly licensed at various levels, a substantial amount of people indicated that they were not aware of the licensing status of their work at all. Useful insights from the comments mentioned various barriers to OA such as rights clearance (for mainly twentieth-century source materials) or partner agreements' provisions. Others indicated that they distinguished between different licenses or reuse statuses for different data types (e.g. texts vs. images) within the same edition. The issue of open documentation alongside CC licensing was also raised several times: "We're using Creative Commons licences, which seems sufficient. Of course, explicit documentation about re/use conditions wouldn't harm" (R112).

To deepen our understanding of the community's awareness of licensing issues further, we asked respondents to provide the name of the license under which their digital scholarly edition is published (Q9). This question asked for open-text responses to allow people to be as specific or general as they wished, while allowing us to assess their understanding of licensing standards and protocols. To frame the question, we gave respondents a concrete example ("e.g. CC-BY-SA-4.0 or similar"). The Creative Commons licensing scheme was the most popular, with respondents offering a number of variations on the CC license as well as referencing other licensing schemes that were better suited to different types of scholarly outputs (e.g. content vs. code).

After mapping respondents' awareness of licensing for digital scholarly editions, we asked about current institutional policies on Open Access. While setting up and adopting OA institutional policies for various scholarly outputs such as digital scholarly editions may help enforce licensing considerations, making OA a requirement could impede a more active engagement and understanding of OA based on a conscious scholarly choice: we don't always understand or support a regulation we're forced to follow. Furthermore, it is important to note that OA regulations tend to create tensions between institutional policies and funders' agendas, when we want to assess the socio-economic and scholarly questions that are currently at stake. By asking two distinct questions on institutional and funders' provision towards OA (Q10 and Q11), we wanted to imply a clear distinction between the two and, more importantly, see if any gaps or grey areas exist regarding OA implementation, especially in the case of complex digital scholarly outputs. This last aspect is especially relevant in relation to digital scholarly editions, as stakeholders' guidelines vary widely in terms of openness, comprehensiveness, and style as well as in how they conceptualize the multitude of research outputs and their related licensing status. To leave room for this issue, we provided our respondents with a comment box where they were encouraged to list specific licensing regulations pertaining to "the edition itself, the underlying code, metadata, scholarly outputs or manuals resulting

from the digital scholarly edition". An interesting response also describes Open Source tools and services as part of the institutional compliance of the digital scholarly editing project to Open Access:

I have licensed my two first digital projects with Creative Commons Attribution Non-Commercial 3.0. Most of my work is funded by public bodies so it has to be freely available for reuse. [. . .] The data (XML) is all available on Github. I have used EVT2 to publish my digital edition of the [redacted] which is a free open source tool. In regard of [redacted], we are using Kiln with publication purposes – this is again all free and available online. In addition to Open Access, I have documented my editorial criteria on Github and also written extensively about the whole process in a number of articles and papers.

(R13)

The majority of our respondents' institutions do not require open licensing for research outputs (57 responses, or 38%), in contrast to a relatively small number of institutions where open licensing is mandatory (27 responses, or 18%). It should be noted that a substantial amount of respondents indicated they were simply not aware of their institution's Open Access policy for digital scholarly editing projects (40 out of 149 respondents, or almost 27%). As for the funders' OA requirements (Q11), the results were quite evenly distributed among respondents that indicated their funders *do* require open licensing (30, or 20%), those that *do not* (32, or 21.5%), and respondents who indicated that their project did not fall under a funding scheme at all, allowing them to make a more conscious decision when it comes to licensing their digital scholarly edition (also 32 respondents).

To conclude, the answers we gathered in this section underlined the importance of Open Access for digital scholarly editions, the growing awareness of the community about licensing and reuse issues, and the diverse stakeholders' takes on establishing OA policies. As issues of licensing are usually linked to copyright regulations, e.g. for historical documents, it is often difficult to balance the scholarly will and/or commitment to an OA ethos with compliance to external legal and financial regulations. On the other hand, OA as a scholarly movement is about inventing financial, legal, intellectual and administrative models in order to redistribute the power of knowledge; what we are observing from this section is that the digital editing community is actively exploring ways to make this happen by balancing the restricted access or reuse of copyrighted material with open documentation or by adopting Open Source tools and development frameworks.

3. Access to the code

With Open Access being an emerging topic in digital textual scholarship, it is worthwhile to take a closer look at what we understand by the *content* of digital scholarly editions. In general, content usually means the source material in

some digital form (e.g. digital facsimiles and transcriptions of the source text). To be sure, the capacity of digital editions to provide access to primary sources has always been a major selling point of the digital medium. And, as Lavagnino noted, a digital edition differs from a digital library because it contains a fair amount of scholarship in addition to digital reproductions of existing texts (2009 [1997], 63).¹¹ It has been generally acknowledged and accepted that transcriptions, for instance, convey a scholarly interpretation rather than objective findings. Incidentally, this holds true for both print and digital transcriptions.¹² Arguably, though, another key component of the edition's content is its code base. Code, in the broadest sense of the word, provides users with various tools to access and examine the source materials. It seems evident, therefore, that an edition's code base should be made available for critical evaluation too (Bodard and Garcés 2009). All the more so if we consider that a digital scholarly edition makes use of tools that transform and manipulate its source materials for the benefit of the user. How to critically assess an edition's code base, however, has only become a point of concern in recent years.

As with every topic in the article, a code base is an intricate issue that needs more context. We will therefore start by asking what the code of a digital edition is exactly, before we go on to discuss the current approaches to providing access to it. So what do we mean when we talk about the code of an edition? In and of itself, "code" appears to be a term as broad as the term "access" — and as diversely defined. In the context of a digital scholarly edition, we can distinguish source code from other underlying material. Source code is understood to be "a blueprint for a [computer] program that can be executed", meaning something written in a formal language that is interpreted by a computer and results in executable software (Van Zundert and Haentjens Dekker 2017, 121). "Other underlying material" constitutes a more ephemeral category and includes (but is not limited to) digital transcriptions, a database or content management system, associated style sheets and schemas, a graphical user interface, and a search engine. In addition to the source code and the underlying material, an edition can make use of integrated existing software like a collation engine or a data visualization tool to process the text files. This could be software that is specifically developed for the edition, software developed by external, independent parties, but tweaked to match the research purposes of the edition, or Open Source software that is integrated unaltered. To date, there has been

¹¹ We can even make the argument that digital reproductions are a product of scholarship as well. At the very least they are equally subject to interpretations of the specialist that makes them. This ranges from technological factors like lighting and camera settings to a choice about what elements to capture and what not. In short, digital facsimiles are always an approximation of the source document.

¹² In 1971 Hans Zeller argued that scholarly editing is "ineluctably" subjective, which isn't a bad thing in itself; in fact, the scholar's insights and knowledgeable interpretation can help others understand the text (Zeller 1971, 22). It's more important, therefore, that editors clearly communicate about their decisions and methodology than that they strive towards an unattainable standard of objectivity (see also Bleeker 2017, 41).

little agreement on what of this amalgam of databases, software, stylesheets, query functions and transcriptions makes up the code of the edition. Everything together or just a selection? And if the latter, on what grounds is the selection made?

In this respect, another interesting perspective is that of the archivists and librarians who take charge of preserving digital editions. What aspects do they consider as essential parts of a digital scholarly edition? The Dutch digital archiving institute Data Archiving and Networking Services (DANS) takes a universal approach and aims to store as much data as possible.¹³ The group recognizes the risk of digital files becoming obsolete as hardware changes, and while they lament their lack of means to preserve hardware, they intend to store at least information about the digital environment and the hardware required to access the data set (DANS Preservation Policy version 1.0, 2018). Another important aspect that certainly influences how digital editors feel about the code of a digital scholarly edition is whether or not they consider code to have a scholarly quality. The editing community may agree that a digital transcription represents an interpretation, but less attention has been paid to the question of whether the edition's code also constitutes a form of scholarship. Users often attribute a neutral or objective quality to software, but software that is used to query, process, or analyse the edition's data is often constructed based on certain scholarly assumptions and decisions. An Open Source collation engine like CollateX, for example, reflects the prevalent scholarly understanding of text collation and makes, *inter alia*, certain assumptions about what constitutes a token and when two tokens form a match.¹⁴ The same applies to graphical interfaces that inevitably steer a user's gaze and influence how the edition's data is accessed and perceived.¹⁵

Still, the variety of digital editions, representative of a field that continues to develop, makes it difficult to come to any conclusive definition of a code base. For that reason we have refrained from adopting a narrow definition of "code" in the survey to leave room for idiosyncratic, project-specific interpretations. One disadvantage of such a broad definition is that not all respondents understood what was meant by "code" which was for some an incentive to skip the questions (e.g. Q15, R185; Q16, R120; Q17, R176). Others, on the contrary, decided to leave a lengthy and detailed response, listing every program their project uses. These wide-ranging and diverse responses are difficult to summarize and do

¹³ <https://dans.knaw.nl/en/about/organisation-and-policy/policy-and-strategy/preservation-plan-data-archiving-and-networked-services-dans-1>, accessed 30 June 2019.

¹⁴ CollateX (<https://collatex.net/>) is developed within the framework of the Interedition project (2007-2011) and maintained at the Digital Infrastructure department of the Humanities Cluster at the Huygens Institute in Amsterdam.

¹⁵ This topic was the theme of a symposium on scholarly editions and interface design, "Digital Scholarly Editions as Interfaces", at the Centre for Information Modelling in Graz, Austria (23-24 September 2016). The contributions to this symposium are bundled in a special volume of *Schriften der Institut für Dokumentologie und Editorik* (Bleier et al. 2018).

not exactly help with narrowing down and refining the definition of code. An important benefit, however, is that this survey provides us with perhaps the most comprehensive overview of current digital editorial practices. Indeed, when taking a closer look at the commentary in response to Q12 and Q13 ("what type of software does your edition use?") we see a highly diverse understanding of software. Respondents list specific editorial tools like eXist DB and CollateX, but also more general tools like git version control, Google Sheets, and MS Office suite. In addition to tools, standards like TEI (P5) (Text Encoding Initiative Proposal 5), HTML (Hypertext Markup Language) or CSS (Cascading Style Sheets) appear to be considered part of software as well.

As mentioned above, editorial strategies geared towards providing suitable and sufficient access to code are affected by how the concept of code is defined. In other words, if software isn't considered to be part of the scholarly content of an edition, editors are less inclined to put any effort into making its source code accessible. In the context of the survey, we've understood access to code as the possibility for end-users to see which software is used and how the scripts and tools together manipulate the content of a digital scholarly edition.¹⁶ This definition adheres to the idea that knowledge is inseparable from the way it is made.¹⁷ A similar sentiment was expressed by survey respondents who overwhelmingly responded positively when asked if they considered it important to share information about the technical aspects of the edition and the underlying data (Q18). The responses underline that the question isn't so much "*should* the code be made accessible", but rather "*how* should the code be made accessible?" This question is strongly related to the issue of education and training. In her talk at the 2016 conference of the European Society for Textual Scholarship, Elena Pierazzo rightly noted that it's unfeasible to expect scholarly editors to be experts in textual scholarship, information modeling, data structures, APIs and interface design.¹⁸ Training in digital scholarly editing is a key concern, and the amount of institutional programs and online training material that is available has increased in the last decade. Still, those new to the field of digital editing (whether they are early career scholars or senior scholars making the transition from print to digital) may not necessarily know where

¹⁶ This definition was inspired by the Modern Language Association's 2016 publication on digital scholarly editions, which states the importance of documenting how the edition was created, including processes that otherwise remain invisible like algorithms, data structures and constraints (MLA 2016, 7).

¹⁷ A statement recently repeated by Willard McCarty in his keynote lecture at the international conference on Computational Methods for Literary Historical Textual Scholarship (Leicester, July 3-5, 2018; <http://cts.dmu.ac.uk/events/CMLHTS>, accessed 30 June 2019).

¹⁸ In a joint talk with Susan Schreibman and Franz Fischer entitled "DiXiT: Research, Training, and Networking in the Field of Digital Editing" at Digital Scholarly Editing: Theory, Practice, Methods, Thirteenth Annual Conference of the European Society for Textual Scholarship, Antwerp, 6 October 2016.

to look for those materials or even where to start.¹⁹ Based on our experiences within DiXiT, we confirm that expecting digital editors to be "super editors" is not only unrealistic but also unnecessary (Pierazzo 2016). A more realistic approach would be for editors to have a conceptual understanding of text modelling and, importantly, to be able to collaborate and communicate effectively with specialists in information science.

Respondents also confirmed the observation made in the introduction to this article: most editors consider access to code important, but opinion as to how to share code remains disparate. For instance, digital scholarly editors could provide extensive technical documentation or content themselves by providing a link to an online GitHub repository that contains all scripts of their editions. Without some commentary or annotation, however, these scripts would be difficult if not impossible to read for the uninitiated. We can break this issue down in at least three key aspects, the first one naturally having to do with what is defined as the edition's code. Is it the complete set of scripts, the interface(s), and software packages taken together, or a selection thereof? Second, there are different degrees of access to the code. Someone who has a broad and inclusive understanding of "code" may still consider it unnecessary to make the entire set available to the end-user. For example, the technical criteria for *RIDE*, the review journal for digital scholarly editions, only asks about availability of what they call "basic data" — XML transcriptions of the source texts — and not so much the operations on those source texts.²⁰ Third, if an edition makes use of tools developed by external parties, it may be challenging for the team to provide detailed insight into how these tools operate. This point is particularly relevant, as over 70% of our respondents indicated that they make use of existing open source software (Q12). One could argue that, in this case, the responsibility lies not with the editorial team, but with the tool developers. Is it not reasonable to assume that creators of digital scholarly editions have made an informed choice regarding these tools? That they are aware of how the edition's data is manipulated and that they are able to justify their choices? In reality, again, editorial practices vary. Several respondents indicated that providing access to the code was a goal at the outset of their projects, but was never (fully) realized: one respondent commented that "associated XML files, as well as documentation concerning their markup and associated technical systems[,] was supposed to be made public but was never done" (Q16, R196). Others admit that they have no idea whether or not any of the underlying code (transcriptions or scripts) are available. Still, with the majority of answers being favorable towards open

¹⁹ Good starting points are the website of the DiXiT project, which contains all materials of the training camps and workshops (<http://dixit.uni-koeln.de/>, maintained by the University of Cologne), the NEH Institute "Make Your Edition" (<https://pittsburgh-neh-institute.github.io/Institute-Materials-2017/>) and the personal website of David J. Birnbaum of the University of Pittsburgh (<http://obdurodon.org>). All links accessed on 30 June 2019.

²⁰ The *RIDE* questionnaire focuses on another key issue: the reusability of the edition's data.

repositories like GitHub for storing datasets, it seems that the real challenge lies not in the general mentality but rather in the methodology.²¹ We therefore strongly recommend any future work to focus on establishing standards for a technical rationale of digital scholarly editions. In particular, we see value in (1) the development of guidelines for communicating the data transformations produced by tools and software used; and (2) providing clear instructions about the possibilities to (re)use the scholarly data set. Such recommendations are tightly intertwined with the pedagogical issues outlined above.

4. Web accessibility and usability

Having broached the subject of code and accessibility to the entire digital scholarly edition environment itself rather than its contents alone, we wanted to examine the concept through the lens of web and software development. In this context, the term accessibility has a very specific meaning, where it refers to the adoption of strategies that make the application accessible to all users — including those with (in)visible disabilities. George H. Williams lamented the fact that although “[o]ver the last decades, scholars have developed standards for how best to create, organize, present, and preserve digital information” for future generations, “the needs of people with disabilities” have largely been neglected in this pursuit (2012, 202). Indeed, especially in the field of digital scholarly editing, discussions regarding different user needs typically refer to those with non-academic backgrounds (Apollon et al. 2014, 93; Pierazzo 2015, 151) rather than to users with (in)visible disabilities. In addition, as two major points of reference in the field, neither Sahle’s (2016) nor Franzini’s (2016) catalogues mention accessibility in their respective lists of criteria for digital scholarly editions. This suggests that otherwise widely adopted standards such as @alt texts for links and images, consistent use of header tags, legibility of fonts, attentive use of colors and contrast, etc. are not sufficiently acknowledged or adopted in the field.²² In the web accessibility section of our survey, we wanted to test this hypothesis, while also gauging the community’s perspective about making accessibility a prevailing concern for digital scholarly editions.

The first goal of the web accessibility section was to map respondents’ awareness of relevant accessibility guidelines by practitioners in the field. To this

²¹ As a final point, it is worth taking a closer look at reasons for not providing access to the code of a DSE. Answers range from straightforward (the editors do not know how the code works) to complex (part of the code is licensed), from principled (the code is considered as subservient to or less important than the source material) to aesthetic (the code is considered too ugly to publish).

²² This shortcoming becomes particularly poignant when we take into account that the digital medium gives the DSE the capacity to be more accessible than its print predecessor — and perhaps especially so when the DSE is published on the Web, a medium that “is fundamentally designed to work for all people, whatever their hardware, software, language, location, or ability”, as it “removes barriers to communication and interaction that many people face in the physical world” (W3C 2018).

end, we asked our respondents whether the digital scholarly editions on which they worked adhered to any established web accessibility guidelines (Q23).²³ In total, 75 respondents (64.5%) indicated that they were at least aware of the efforts their development team were making in this respect (with 31 indicating compliance, 9 indicating partial compliance, and 35 indicating non-compliance to web accessibility standards), with 37 (31%) indicating they were not aware. These results suggest that awareness of web accessibility practices is still an issue in digital scholarly editing, and that most editions do not actively (or only partially) comply to relevant standards. Cross-referencing these results with respondents' demographic data, however, revealed an interesting geographical divide (see Figure 3.3).²⁴ When we just look at "yes" and "no" answers, we see that for Europe "no" responses outrank "yes" almost two to one; while in Northern America the answers are reversed, with "yes" responses outranking "no" almost three to one. This suggests that web accessibility practices in digital scholarly editions are much more common in Northern America than in Europe. This divide makes sense when we realize that both the USA and Canada have laws or policies in place requiring web accessibility for digital output of publicly funded projects and that this is not the case for many European countries (Williams 2012, 205).

For editing projects that *did* provide web accessibility options, we wanted to know what kind of options these were (Q25). This was an optional open-ended question to encourage respondents to share any web accessible option that sprang to mind. Sadly, the response rate to this question was low (with only 23 usable answers).²⁵ We grouped answers into different categories, to determine what kind of measures digital scholarly editing teams were focusing on — or, failing that, at least those of which our respondents were aware. These categories were based on the four "principles of accessibility" that the W3C's Web Content Accessibility Guidelines (WCAG) are organized around:²⁶ for

²³ By answering either 'yes' or 'no' to this question, respondents indicated that they were at least aware of the efforts their development team were making in this respect, while answering 'don't know' indicated that they were not. An 'other' option with comment box was also provided for people to whom the question did not apply (e.g. because they were not involved in the development of a DSE) or for those who wanted to provide a more nuanced answer. Delving deeper into the 'other' category allowed us to attribute a few more answers to the other three categories, and suggested that there was a substantial part of digital scholarly editions that provide partial compliance to web accessibility standards.

²⁴ The nine respondents that are not included in these two graphs either did not enter usable demographic information in the survey or were situated on a continent that was underrepresented in our survey.

²⁵ We received a total of 48 answers, 19 of which (i.e. almost 40%) were disqualified because respondents did not mention measures that were taken to make the edition more accessible. In addition, six more respondents referred to standards, platforms, tools and/or validators they had used, rather than mentioning specific accessibility options — leaving the total at 23.

²⁶ Specifically, we used version 2.1 of the guidelines: <https://www.w3.org/TR/WCAG21/>, accessed 30 June 2019.

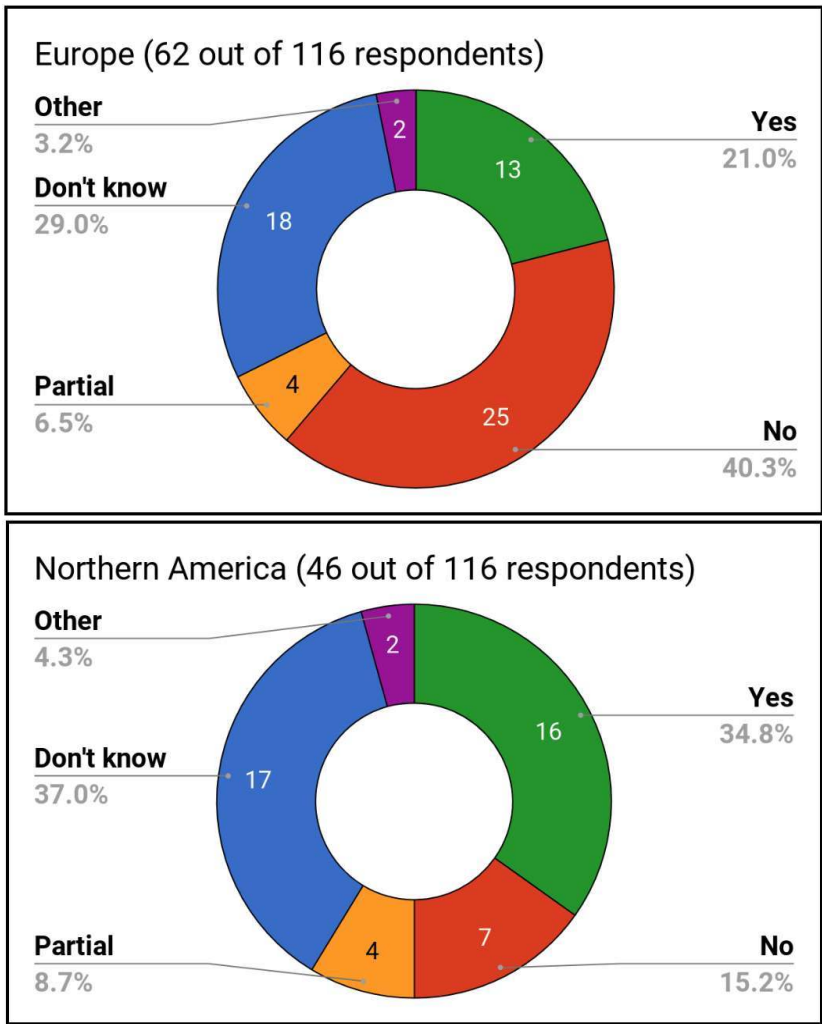


Figure 3.3: Responses of Q23 "Do(es) your digital edition(s) adhere to any established web accessibility guideline(s)?", contrasting answers from European respondents (left) with those of Northern American (right) respondents.

web content to be accessible, it needs to be “perceivable” (presented in a way users with different abilities can perceive); “operable” (presented in a way user with different abilities can work with); “understandable” (presented in a way users with different abilities can understand); and “robust” (presented in a well-formed environment so that it can be interpreted and used by different agents such as assistive technologies) (W3C “Introduction”).²⁷ As respondents were free to list as many options as they liked, it was possible for individual responses to be tagged with more than one of these categories.

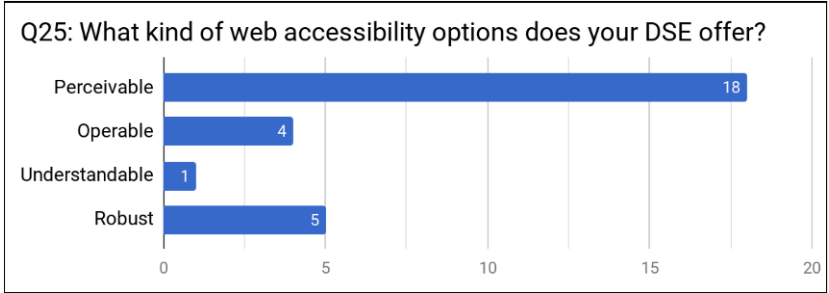


Figure 3.4: Classification of the accessibility options offered in Q25 in relation to the different WCAG principles.

As Figure 3.4 indicates, most responses focused on perceivability, including “text alternatives” (e.g. careful description of images so that they can be perceived by the visually impaired), careful use of color, contrast, and visual presentation (e.g. using more legible fonts), providing options for resizing the text, and making the content adaptable to the display (responsivity). The second largest category, robustness, focused on the structural integrity of HTML output and/or explicit screen reader testing. In the operability category, then, all four responses mentioned keyboard accessibility (making content accessible through the keyboard rather than with a mouse pointer). Finally, the one respondent that discussed understandability referred to catering to different reading levels. It should be noted that out of the 23 usable responses, only four were given more than one tag and no response was given more than two.²⁸ This is important because for a web environment to be considered conformant to the WCAG, it needs to meet at least all Level A Success Criteria (or conforming alternate

²⁷ For more elaborate definitions of these terms, please refer to: <https://www.w3.org/WAI/WCAG21/Understanding/intro#understanding-the-four-principles-of-accessibility>, accessed 30 June 2019.

²⁸ Two respondents mentioned measures that improved both the edition’s operability and robustness; one respondent’s measures improved its perceivability and robustness; and one respondent’s measures improved its perceivability and understandability.

versions) across all four organizing principles.²⁹

Finally, we wanted to gauge the community's position toward adapting web accessibility guidelines in the first place, by asking them how important they found the issue of web accessibility when developing a DSE (Q26). The answer format was left open to allow the participants to be as nuanced in their answers as needed. While the responses were evaluated and tagged according to a set of categories (very positive, positive, qualified positive, negative, unsure, not answered), this question was primarily designed to support a qualitative rather than a quantitative analysis.³⁰ We were mostly interested in reading our respondents' reasons for (and caveats to) assigning a degree of importance to the aspect for web accessibility. Still, as Figure 3.5 shows, responses to this question were overwhelmingly positive, as most answers could be tagged as either "Positive" or "Very positive" (respectively 19 and 63 responses; totalling just over 70%). Almost 20% of respondents could be considered as critical of the importance of web accessibility for digital scholarly editing (merging the categories "Qualified positive" and "Unsure"), while less than 4% provided a clearly negative response to the question.

Positive responses referred to the importance of catering to a broad interpretation of the edition's target audience, an insufficient awareness of the problem, a structural lack of resources and training, the importance of considering accessible design at an early stage in the project, and the fact that universal design improves user experience in general — not just that of people with disabilities.

²⁹ With the exception of one respondent who focused on understandability, most of the web accessibility options listed in responses to Q25 focused on aiding people with visual impairments, whereas the WCAG tries to cater (to some extent) to an audience with a wider range of disabilities — including "auditory, physical, speech, cognitive, language, learning, and neurological disabilities" (WCAG 2.1). Part of this bias towards visual impairments in the survey's responses could be explained by recalling that respondents were never asked to provide an exhaustive account of the accessibility options their editions provided and were possibly only entering those that came to mind first. In a predominantly visual environment like the World Wide Web, arguably the most obviously disadvantaged group of people is the visually impaired. We should also keep in mind that (much like its print predecessor) the modality of today's DSE is mostly limited to digital facsimiles and texts transcriptions. As time-based media such as audio, video, and complex animations are much less common in this environment, there is also less of a focus on catering specifically to users who have more difficulties navigating, perceiving or processing such materials.

³⁰ Answers that described web accessibility as "important" (or an equivalent term) were tagged as "Positive", except when they were accompanied by a reinforcing adverb (such as "very"), in which case the response was tagged as "Very positive". This latter category was also assigned responses that describe web accessibility as an indispensable step in web design (e.g. "crucial", "essential", etc.). When web accessibility was regarded as important, but the statement contained a caveat to qualify this importance, it was tagged as a "Qualified positive". When it was not regarded as an important aspect of digital scholarly editing at all, the response was tagged as negative. The category "Unsure" was reserved for responses that indicated the respondent's indecisiveness. Responses that avoided the issue were tagged as "Not Answered".

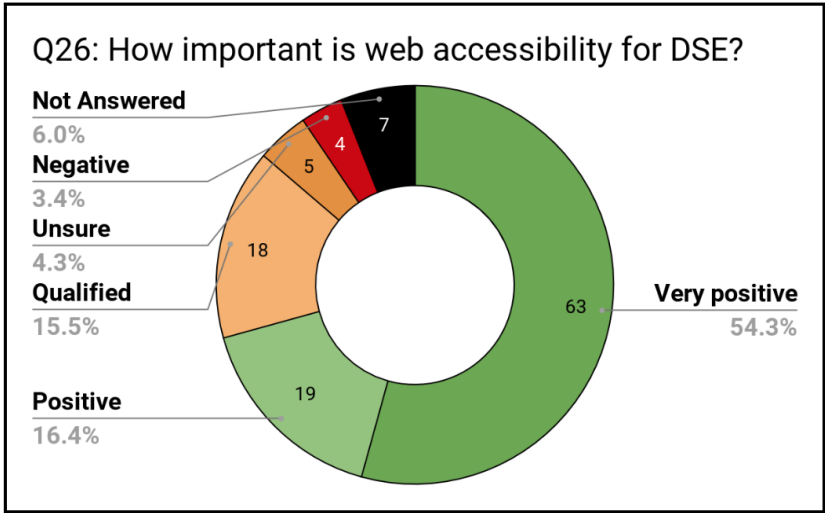


Figure 3.5: Distribution of importance assigned to web accessibility in the design of DSE as analysed through Q26.

Most of the critical responses referred to the difficulty and high cost of realizing fully web accessible editions, and to the need for editors to prioritize their efforts and expend their resources accordingly.³¹ In some cases these arguments were justified by referring to the digital scholarly editions’ highly specialized target audience.

Most of the four negative responses we received were rather short, but all indicated in some way or other that web accessibility is not (or should not be) a priority in digital scholarly editing. One respondent was more elaborate and expressed sentiments that recall some of the statements made by the “critical” respondents, so it is quoted here in full:

Not very. Ease of use and consideration of different access devices (tablets, phones as well as traditional laptops, etc.) is part of the design of all Web software. I don’t think we need to supply specific tools for say blind people to read our edition. First of all we’re not made of money and all this costs money. Someone who has an interest in that sort of thing can do it instead.

(R18)

Again, the price of developing digital scholarly editions that are accessible to people with disabilities is mentioned. The response implies that editors should

³¹ One critical respondent called web accessibility a “luxury” (R100).

prioritize the development of their digital scholarly editions to their target audience and suggests that people with disabilities are not part of that target group. Instead, the burden of developing digital scholarly editions that are web accessible (or reengineering editions to make them more accessible) is pushed to an external party. We should note that as a single response within a clear minority of the survey's respondents, this is an outlier; however, the opinion it expresses should be taken into consideration, especially since it echoes several concerns voiced in the category of critical responses. To conclude, we can say that while our survey suggests an overwhelmingly positive attitude towards making digital scholarly editions web accessible, the community also conversely indicates some marked resistance towards its implementation. This implies that seven years after Williams' essay, there is still a lack of awareness of these issues among some members of the field.

5. Diversity and inclusivity

After exploring how digital scholarly editions can be made more accessible to a wider group of people, we further extend the discussion by examining what access can mean in terms of diversity and inclusivity. As opportunities for the institutional support and development of digital scholarship have proliferated, so too have calls for more diverse and inclusive research groups and materials.³² Correspondingly, digital humanities scholars are continually confronted with the difficulty of creating Internet-based research that is simultaneously global and ethical, and are beginning to negotiate this tension by engaging with scholars and materials not just from the Global North, but also the Global South. However, this tension and its related discourse seems to progress without notable input from the (mainly European) digital scholarly editing community. This is remarkable, because the symbiotic relationship between digital humanities and digital scholarly editing, as well as editors' collaboration with colleagues from disciplines that actively work toward social justice (e.g. librarians and archivists), suggest that a critical reflection on digital scholarly editing should address questions of inclusion and diversity head-on.³³ We therefore designed the inclusivity section of the survey to gauge our respondents' familiarity with and opinions about these issues and to add our community's voices to this discourse.

As our own definition of inclusivity was focused on marginalized people and groups, Q32 asked whether our respondents' editions covered such material.

³² See for example Nell Smith 2007; Earhart 2012; Fiormonte 2012; Liu 2012; McPherson 2012; Risam and Koh 2013a; Risam and Koh 2013b; Terras 2013; Galina Russell 2014; Bordalejo 2016; Fiormonte 2016; Posner 2016; EADH 2017; Brown and Leigh 2018; Eichmann-Kalawara et al 2018; Liu 2018; Losh and Wernimont 2018; Mahony 2018; Risam 2018, to name a few.

³³ On social justice as a core value of librarians, see Rubin 2016, 533-79; Gustina and Guinnee 2017. On social justice performed by archivists, see Jimerson 2007; Belmonte and Opatow 2017.

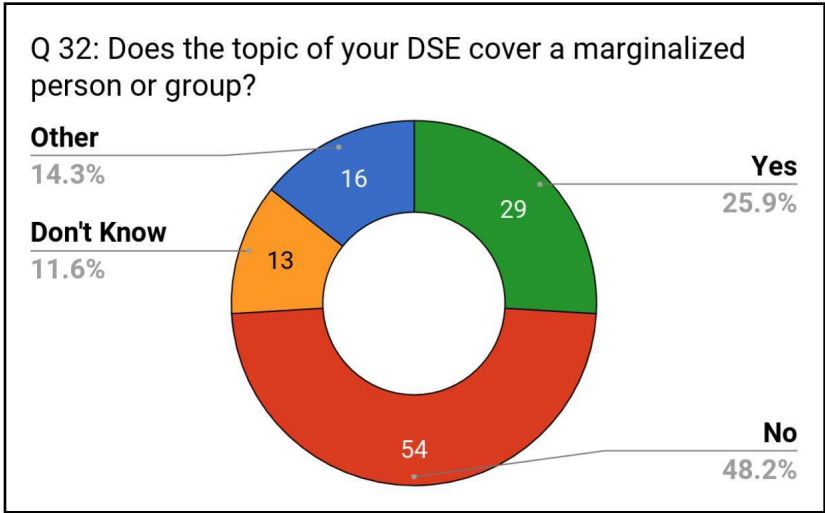


Figure 3.6: Response breakdown of Q32.

A vast majority of our respondents (48.2%, or 54 out of 112) replied that theirs did not (see Figure 3.6). Further context for this result was provided when respondents were asked whether or not inclusive design (Q33) and subject matter (Q34) are prevailing concerns in the development of digital scholarly editions. As the breakdown of these questions in Figure 3.7 illustrates, in both cases the majority of respondents answered that they are not prevailing concerns (49.1% for Q33; 42.2% for Q34). Similarly, a minority of respondents argued that it was not a concern, but that it should be (respectively seven and nine respondents). We then asked respondents in Q35 and Q36 if they had any opinions about what could be done to promote inclusive design and inclusive subject matter, and received responses which generally addressed three specific issues: collaboration, funding, and the literary canon. Using responses from the survey, we explore these three issues below.

In a recent paper Peter Robinson (2016, 875) called for a reconsideration of the role of editors to become “key participants in, and enablers of, communities”, rather than leaders of more exclusive collaborations. Our respondents reinforced this claim, recommending that in order to address issues of inclusion, more could be done to promote and include diverse scholars and users, both in terms of traditionally marginalized groups and in terms of diverse disciplinary backgrounds. As R38 mentioned, digital scholarly editions need to “have as diverse a design, production, and dissemination team as possible. Diversity is good in and of itself, especially if the team is demographically simple”. R191

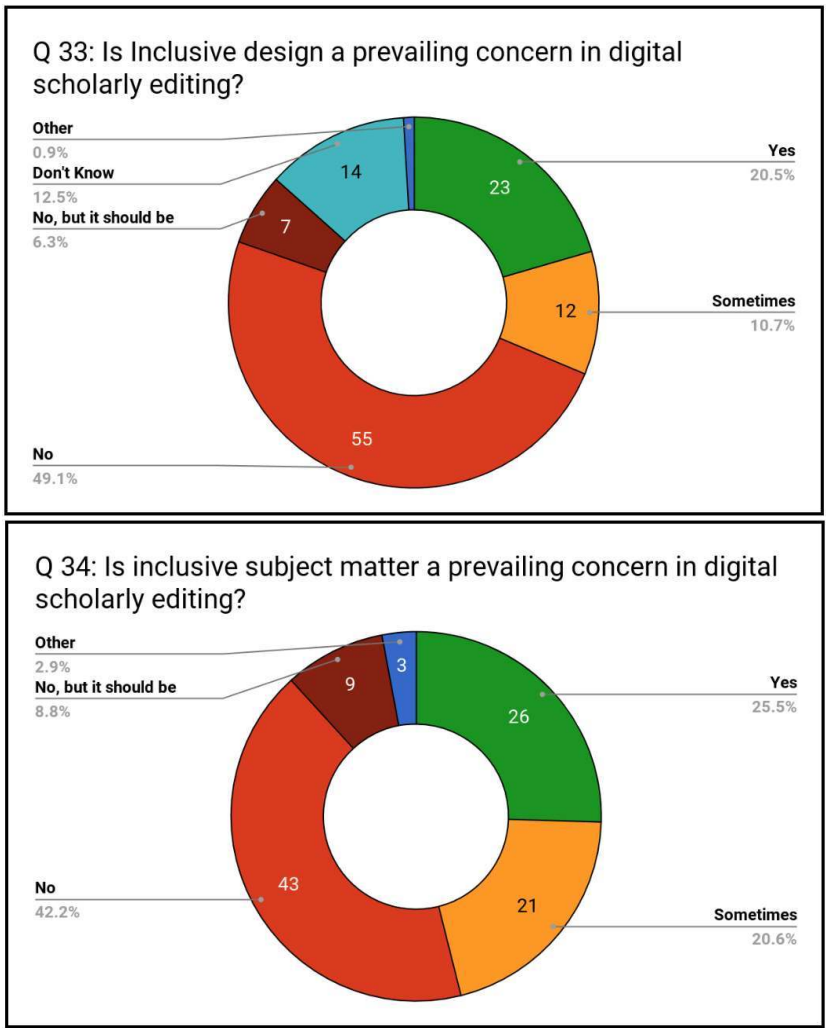


Figure 3.7: Response breakdown of Q33 and Q34.

agreed, writing “[a]s we gain diversity of the people of the scholarly community the projects become more diverse, too”. Another (R59) noted that “marginalised people should be involved in the process! Whether as editors or testing the DSEs before they go live”. This sentiment was echoed by R14, who wrote that collaborative editing projects should “collect ideas/suggestions from a variety of people (racial and ethnic groups, disabled and abled-bod[ied])”. It is important to note, however, that the work of acknowledging and confronting our implicit biases cannot be left solely to the user community. While asking for user input is valuable and necessary, it also shifts the burden of correcting issues of exclusion to those who are being excluded, which can be exploitative. This needs planning tempered with care and concern by editorial teams that choose to call for user participation on these issues.

Over 50% of our respondents commented that funding opportunities for projects promoting diverse teams, exploring non-canonical authors and materials, or for the inclusion of accessibility options in interface design, are few and far between. As R131 observed, changing funding policies is key to raising awareness around the issue of inclusion among colleagues who may be resistant:

Raise awareness of the importance of the topic with funding and policy setting bodies. I think researchers are plenty aware, but feel that accessibility and inclusiveness is not a goal of research output. Also aim awareness under ‘techies’. The attitude of many technologists I know is often quite rude and awareness is rudimentary. Like with the misogynistic attitude inbred as sadly as it currently is in IT work, also the topic of inclusiveness meets with knee jerk denial.

R89 was one of many respondents who further reasoned that if funding calls had requirements for inclusive design and subject matter, these would become heightened areas of focus in digital scholarly editing:

I think it is a topic that is simply going to become unavoidable as time goes on. I’ve been on grant panels where a failure to observe the problem has led to grants being rejected out of hand by the committee. That only has to happen a few times and people will pay more attention!

Such responses underscore a key frustration in digital scholarship: the expectation of researchers and users is that scholarly resources will be available online, but, in comparison to the vast funding opportunities for STEM, humanities researchers are given, as one respondent called it, “peanuts” (R131). There is then no doubt that actively designing editions with questions of inclusivity and accessibility in mind can be regarded as taking time away from content-building, particularly when digital scholarly editors view themselves as creating digital resources on a (relatively) shoestring budget within a tight time frame — as was corroborated in our section on web accessibility. The goal of digital scholarly editing may then need a realignment of perspective, where inclusive research is seen not as an afterthought or a box to be ticked, but as a prime opportunity to explore new, untapped sources in discipline-shaping ways.

Expanding funding for digital scholarly editing projects is linked to a longer

and equally critical process of expanding the (digital) literary canon to include marginalized voices and themes. As R201 replied,

The funding bodies that support scholarly editions are still often strongly motivated by theories of literary quality or cultural significance in their funding decisions. While the wording of guidelines may now provide fairly broad definitions of “value”, nonetheless in making funding decisions, canonical works are more likely to be supported. These policies need explicit change.

Literary quality is a subjective characteristic that can be ascribed to texts by scholarly editors. As Hans Walter Gabler argues, “editors can, for sure, put works and texts, or indeed authors (of the past and present), on the literary map, and within the ken of a general cultural awareness” and “canonisation is intimately — is, indeed, functionally bound up with transmission” (2018, 366). Actively seeking out new texts and authors can contribute new understandings to our editorial orientations — or it can serve as the process by which we discover new orientations (see, e.g., Van Hulle and Shillingsburg 2015). This in turn deepens and broadens our approach to the material we select and explore, and potentially extends the possible applications of our work. According to R190, broadening our scope of material could also be a step toward “acknowledging and addressing our dominant colonial and imperialist culture”. It is important to clarify that marginalized subject matter does not mean the same thing to every person in our field. That is part of the tension around the topic. Respondents working in medieval literature commented that they viewed the whole of their subject as being marginalized, underused and under researched. A respondent working in American literature replied, “C19 American Literature is all about marginalized voices” (R129). Recognizing that we have personal notions about what counts as “marginalized” is also a recognition that there are multiple ways to approach this issue within our respective time periods and subjects of study.

Moving forward

In their introduction to *Advances in Digital Scholarly Editing*, Peter Boot, Franz Fischer and Dirk Van Hulle argue that:

Scholarly editing has a long-standing tradition in the humanities. It is of crucial importance within such disciplines as literary studies, philology, history, philosophy, library and information science and bibliography. Scholarly editors were among the first within the humanities to realize the potential of digital media for performing research, for disseminating their results, and for bringing research communities together.

(Boot et al. 2017, 15-16)

With such an illustrious history and a broad reach into other disciplines, the field can be at the forefront of transforming the digital edition into an environment that is as open, reproducible, and inclusive as possible. Starting from a

conviction that a reflexive, collaborative and inclusive praxis is the cornerstone of good digital scholarship, we designed this survey to determine to what extent practitioners thought these issues were (or, indeed *should be*) general concerns in the field.³⁴ But what the survey especially showed across all sections is that often practitioners are not sufficiently aware of these issues to address them in the first place.³⁵ Perhaps even more telling is that the survey confirmed our hypothesis that the field is still grappling with competing conceptions of access and accessibility.

When asked to define the concept of access with regard to the dissemination and design of digital content (Q7), a majority of respondents (127 out of 158, or just over 80%) largely uniformly defined it in terms of “Open Access” — i.e. as content freely accessible and openly available in a digital medium. Several respondents emphasized the monetary aspect of this “free” availability, denouncing the practice of putting up paywalls around scholarly content.³⁶ Others stressed how important it is for this content not only to be available, but also discoverable. Some respondents also specifically mentioned inclusivity issues and the need to cater to users with disabilities — though we may have guided these responses to some extent by highlighting these issues in the survey’s title and introduction. The issue becomes much more complex, however, when we take a look at the definitions respondents wrote to describe the concept of web accessibility (Q22). Although the term was defined at the start of the survey, a considerable number of respondents were still unfamiliar with it and understood the compound word literally — as is evident from responses such as: “Accessible on the web? (R189), or “[t]he way to be able to access DSE on the web?” (R120).³⁷ And in many cases, this concept was also defined in terms of discoverability or Open Access.³⁸ Nine respondents even indicated that they made no distinction between the terms “access” and “accessibility” by explicitly referring to their definition in Q22.³⁹ A similar confusion of terms occurs with the code of a digital scholarly edition: although respondents were largely positive about the

³⁴ As the survey’s responses indicated, listening is a key factor in understanding where improvements can be made in academia: while conversations about how to refine aspects of praxis can be fraught with tension and disagreement, they are a necessary step in moving any discipline forward.

³⁵ Especially in the web accessibility and inclusivity sections many respondents either lamented a lack of awareness in the field or openly called for more awareness raising activities — at times acknowledging that the survey itself had alerted them to new concerns that they hoped to take with them in the development of their editions.

³⁶ R129, for example, wrote: “Not behind a paywall. Free as in beer” — a sly reference to Richard Stallman’s well-known assertion that “‘Free software’ is a matter of liberty, not price. To understand the concept, you should think of ‘free’ as in ‘free speech,’ not as in ‘free beer’” (2002, 3).

³⁷ The question marks at the end of these replies further indicate that the respondents were not confident in their definitions and were essentially uncertain about how to define the term.

³⁸ R100 defined the concept as “A big fight with copyright and estates”.

³⁹ See R19, R29, R35, R58, R59, R79, R104, R127 and R201.

idea of accessible code, the survey responses also showed considerable variation in the definition of “code”, ranging from software to XML/TEI transcriptions. Accordingly, there is little consensus in editorial strategies towards providing sustainable access to the code of a digital scholarly edition. Finally, it is striking that only just under half of the respondents (57 out of 123) explicitly refer to efforts that make editions more accessible to people with disabilities. This again points to a great lack of awareness in the field and implies that the term accessibility is used at cross purposes. These are important factors to take into account when we try to grasp the field’s perspective on these issues.

As was suggested by the survey’s respondents in its inclusivity section, a key approach to raising awareness is through teaching. An extensive and deep knowledge of editorial theory and practice is acquired with time and experience, but how can we attract new talent? Introductions to scholarly editing for a new generation of students often occurs in summer schools and workshops. Such spaces can make inroads into addressing “marginalization”, by providing students with example editions that meet the agreed definition of inclusion for that context (though the cost of these schools in time and money can itself marginalize interested parties). Often students develop further interest in a field when they have a personal connection to the material and are encouraged to question and analyze it from their own perspectives. This can be accomplished by providing students with materials *in which they can see themselves*. We don’t need to make assumptions about a potential student’s background, but the mere act of our choosing more diverse texts by women, people of color, people with (in)visible disabilities, people from the LGBTQIA+ community, and people who have been marginalized for other political, religious and social reasons, is a way of implicitly signifying that digital scholarly editing is a discipline whose practitioners normalize such work and agree that it is worthy of editorial attention. Making critical choices to include teaching materials that showcase diverse content and inclusive design can also provide new students with a baseline to develop skills in cultural, web and software criticism, and to take up further calls to expand the canon based on what sparks their own interests in ways that are both interesting *and* inclusive.

Given the conflicting understandings of terminology and the general need for greater awareness of access issues, how do we move forward? We would like this article to stand as a call to action, for the community to come together to generate, and more importantly to implement, a set of guidelines that address access in all its messy multiplicity, from dissemination, to Open Access, code, web accessibility, and finally to diversity. Such a call is neither unexpected nor unprecedented: respondents mentioned several times that best practices are needed in order to delineate clearly what is and should be expected of editors with regard to access. There are well-considered guidelines for other areas of our research, such as the TEI guidelines for XML, and the *RIDE* and MLA criteria for reviewing editions. These give us a reference to return to when we want to evaluate our work against a community standard. But establishing community

standards for project building around access, perhaps particularly where web accessibility and inclusivity are concerned, will take careful, measured consideration, as the survey responses indicate that these are murky waters. After conducting this survey, it is clear that more specific research needs to be done to investigate whether or not there is a demonstrable difference in attitudes toward the digital (a “digital divide”, so to speak) between editors who have made the considerable theoretical and practical move from the print paradigm and those who have only ever worked in the digital. This could help explain the complexity of the approach to concepts of access and accessibility in the editing community. Indeed, much more could be done with our own dataset generated by this survey. We don’t profess to be statisticians and we recognize that others may see connections where we did not. Therefore, we gladly offer a GDPR compliant version of our questions and responses on Humanities Commons for further review, reuse or remixing.

As fellows in a well-funded network on digital scholarly editing, we (as authors) have enjoyed a great amount of privilege to explore the theory and praxis of digital scholarly editing in the past four years. However, such privilege needs to be considered when we (as a community) attempt to design desiderata. What is actually feasible to achieve? This is up to each editing team to decide for itself. We will never have uniformity with regard to budgets, team size, project goals, computing power or editorial approaches in our community. Such diversity is intellectually stimulating. But having a set of guidelines and best practices specifically about access and accessibility, which are generated by and consider the needs of the marginalized as well as the privileged, the precariously employed as well as the tenured, the “digital migrants” as well as the “digital natives”, may provide an advantageous starting point for any project, and, in turn, may help us become as diligent about the design and dissemination of our digital scholarly editions as we are about the transcription of our source materials.

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