Unlocking the Digital Potential of Scholarly Monographs in 21st Century Research

Margo Bargheer

State and University Library Göttingen bargheer@sub.uni-goettingen.de, orcid.org/0000-0001-8246-8210

Zeki Mustafa Dogan

State and University Library Göttingen dogan@sub.uni-goettingen.de, orcid.org/0000-0001-9373-8706

Wolfram Horstmann

State and University Library Göttingen horstmann@sub.uni-goettingen.de, orcid.org/0000-0001-8673-6104

Mike Mertens

DARIAH-EU mike.mertens@dariah.eu, orcid.org/0000-0001-9029-904X

Andrea Rapp

Technical University of Darmstadt rapp@linglit.tu-darmstadt.de

Abstract

In the light of new digital production and dissemination practices, the scholarly publishing system has seen significant and also disruptive changes, especially in STM (science, technology and medicine) and with regard to the predominant format "journal article." The digital transformation also holds true for those disciplines that continue to rely on the scholarly monograph as a publication format and means for reputation building, namely the Humanities and the Social Sciences with a qualitative approach (HSS). In our paper we analyse the reasons why the monograph has not yet reached its full potential in the digital paradigm, especially in the uptake of Open Access and innovative publishing options. We highlight some of the principal underlying factors for this, and suggest how especially practices, now more widespread in HSS but arising from the Digital Humanities, could play a role in moving forward the rich digitality of the scholarly monograph.

Key Words: Digital Humanities; scholarly publishing; monographs; digitality; Open Access

1. Introduction

In recent years the scholarly publishing system has seen significant and at times disruptive changes. In order to understand these changes and their implications, it is helpful to analyse first the core functions of scholarly publishing, since such an approach reveals how these functions operate in certain scenarios, what its determinants are, and how these changes interlink. In this paper it is our intention to apply this functionalistic approach to the question of how the scholarly monograph as the leading publishing format for the Humanities and Social Sciences as a whole, in short for HSS, can reach its full potential in the digital paradigm. Roosendaal and Geurts (1997) identified the four core functions of scholarly communication (Figure 1) as "registration, certification, awareness, and archiving," whereby a) registration includes aspects of intellectual property, b) certification comes with the aspect of information being eligible as scientific information via selection and review, c) awareness is achieved through dissemination and d) archiving supports the dialogical process in science publication of citing the previous work of peers through standardised referencing and citation practices. These functions are not separate from one another, and indeed often act in a friction-laden

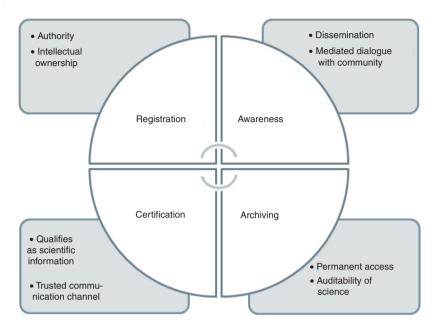


Fig. 1: The four core functions (Roosendaal & Geurts, 1997).

feedback loop; this friction will be highlighted in the following via the certification aspect of scholarly publications.

In the current evaluation and reward system of science and its current competitive setting, the certification aspect receives an overproportioned value. Especially prominent is the "impact factor," its most common and yet problematic proxy. As most authors are in need of credits, be it for tenure and promotion or for research grants, they tend to make their publishing decisions according to the reputation of the publishing channel even if the other functions might be served rather poorly, for example, when books that price themselves out of their market diminish their awareness potential. The "certification" function of scholarly publication is thus emphasised to the detriment of the three other functions. Furthermore, publishing channels with high reputation thus attract authors. As authors and readers in scholarly communication are mostly identical, the symbolic capital "reputation" can be commodified into an economic advantage ready to be exploited (for an extended discussion on reputation as symbolic capital see Eve, 2014, p. 44–47).

If suppliers of scientific information achieve a high distribution of the offered goods, their reputation on the consumer side can grow, which again supports the wider dissemination of the good and strengthens the market power of the supplier. In the digital transformation, with its increased potential for Open Access to scholarly information, in particular the dissemination aspect of scholarly publications has changed radically. We postulate that the publication format of the "monograph" for the digital dissemination of research results has evolved less than the publication format of the "journal article" (favoured in STM research), which is especially detrimental to more recent forms of HSS research, for instance those evident in the field of Digital Humanities.

2. Digital Access to Research Results in the Science, Technology and Medicine Disciplines (STM)

Platforms like Google Scholar, Pub Med, arXiv.org, ResearchGate or ScienceOpen have been designed with a focus on the scholarly format "article" as the prevalent format of communication in STM, and therefore corresponding modes of production and consumption have arisen. Digital processes and the internet now allow the 24/7 availability of articles, by which the formerly scarce resource "scientific information" turns into a natural part of the scientific value chain, either provided by libraries thanks to significant investment on their part, sold as costly pay-per-view (although creatively undermined by rogue alternatives such as SciHub or #icanhazpdf), more or less reliably through the above-mentioned platforms, or financed on the production side according to the Open Access model. This digital availability has led to significant added value for the consumers of scientific information, both in the functionality of the medium itself (e.g. by enabling digital references, access to primary data, or the integration of dynamic elements) as well as in the dissemination dimension. In respect of the awareness function, apart from the overall possibility of the digital dissemination aspect itself, for STM authors the variety and number of Open Access publication routes has reached significant coverage and still continues to grow. Both established and newly founded journals offer Open Access publication opportunities and authors are able to draw on established funding, financing and license models. Similarly, the activities of research funders and institutions (OA publication funds or the European Commission's Open Access guidelines) add to

the visibility, enforcement and acceptance of OA publications in those fields. Efforts over more than a decade by funders and research institutions have contributed to the development of a comprehensive repositories infrastructure, resulting in a steadily growing proportion of the published literature being available in Open Access. All in all, real certification in the STM field does not necessarily run along simple digital vs. non-digital or Open Access vs. Closed Access lines, but along the achieved level of certification potential, the "impact," made up of both reputation and dissemination.

3. Digital Access to Research Results in the Humanities and Social Sciences (HSS)

For the Humanities and Social Sciences, working to a large extent within the format "monograph," we see a different picture. The monograph as the "long argument," the comprehensive text that interlinks the state of the art with the specific research question, its context and the research result as such, maintains its dominant position in the development of an academic career. While researchers in the natural sciences almost exclusively rely on digital journal articles to communicate with peers and to promote their career, publishing the thesis as a printed monograph is for large parts of the humanities and social sciences still the proxy for being recognised as a serious researcher, which is reflected in tenure and recruitment procedures. Text-oriented disciplines as in the HSS take language beyond the descriptive carrier of information as in STM. For these disciplines language is a research subject in itself as well as a virtual laboratory with language as an analytical and interpretative tool for frequently hermeneutic approaches, laying the ground for cultural setting and contextualisation. Therefore, using a lingua franca like English in STM, is hardly an option for academics in the HSS and this drastically reduces the potential market for publishers in comparison to the STM fields. At the same time, the respective disciplines working as described have relatively small numbers of authors and corresponding readerships, which poses a general challenge for the dissemination of their research result, the monograph. The German language area, for example, has a market for scholarly literature just large enough for publishers to stay in business with conventional modes of publishing, yet not tight enough to force them into innovation by seeking out new opportunities in online dissemination. And although a few large and dominant publishing houses continue to grow primarily through the

acquisition of smaller competitors, there are still more than 300 specialised small and medium enterprise (SME) publishers for scholarly monographs active in Germany.

Compared to SME Anglo-American University Publishers, they specialise in certain topic segments and have correspondingly low economic potential to invest in new access models or publishing innovations. They have to deal with the fact that retail prices continue to rise as print runs become shorter (Greco & Wharton, 2008), while the number of newly released titles [see the Annual Reports of the German National Library (2013-2015)] has not dropped, despite shrinking library budgets. The tight budget situation of scientific institutions and sponsors has exacerbated the existing circulation and sales decline even further (Greco & Wharton, 2008), so that the current supply of literature on the part of libraries has noticeably deteriorated in terms of publications from these disciplines. For authors, the situation described here means that the likelihood of publishers accepting their research results in publishing programs, and libraries subsequently making them publicly available and known via acquisition and library catalogues, wanes significantly, resulting in fewer peers becoming aware of the research results in question. Further to this, the majority of scholarly books focusing on the target group "professional colleagues" rely on being subsidised by authors, as publishers operate in niche markets, and sales revenues are too small to cover production and dissemination costs. This puts authors in the position of either cofinancing the dissemination of their research results with funds they have to apply for, drawing on their research budget, or streamlining their research for economic exploitation.

4. Tracing a Delayed Technological Uptake

On the consumption side, the budget-related undersupply and the scarcity of publishing opportunities in the conventional realm could be softened by increased Open Access and innovative publishing concepts. In reality however, in HSS disciplines we see neither an adequate supply of literature in the Open Access mode *per se* nor a strong push for more Open Access, although according to the German Study of Open Access Publishing¹ 90% of the social scientists interviewed stated that their disciplines would benefit from more Open Access. Martin Paul Eve described already in 2014 several successful

initiatives for Open Access monographs; however the majority of monographs remain behind pay-walls or are produced as print editions. The largest Open Access monograph collection in the OAPEN library holds around 4,100 titles. The JSTOR Open Access books collection holds less than 700. Furthermore, both collections grow only rather slowly, going on the numbers of current genuine Open Access titles, despite benefitting from backlists and parallel or delayed dissemination. Even a highly innovative digital platform such as the aggregating OpenEdition service rests on the conventional business model of toll-access monographs. OpenEdition offers the innovative "freemium" model (free HTML Open Access plus paid access to PDF and mobile formats), while Knowledge Unlatched requires significant marketing effort to win libraries that need to pledge for book collection to be set free. Even the "Open Library for Humanities" (OLH), which was established in 2013 as a counterpart to the successful "Public Library of Science" (PLOS), is for the time being focusing on articles/journals, although it is envisaged to also move into monographs as stated by Eve already in 2014 (p. 135). And while PLOS already struggles with a maturity problem of having a too dominant market position to allow competition-based elasticity in their pricing model, the HSS counterpart is still in the phase of consolidation as an infrastructure, and seeking wider acceptance in the HSS mainstream. The Directory of Open Access Journals (DOAJ) as an indexing service for articles launched in 2002, while the corresponding Directory of Open Access Books (DOAB) started to index books with licenses for free access and re-use a full decade later. A delay of around ten years, it could be argued, in terms of these infrastructural examples, can be seen as a proxy for the overall relative difference in speed of Open Access uptake in comparing the STM fields with HSS.

The reasons for this delay are complex and involve not just factors around access but also the nature of the "digital" as such. We postulate that the main reason is that scholarly journals and their sub-unit "article" travel a lot more smoothly through digital transformation than books, since in their case fewer technical and conceptual obstacles need to be overcome, be it reading habits, reputation gain or storage concepts. And if stakeholders have less room to move – whether for economic or identification reasons – there will be less change on the supply side for digital HSS books. Low numbers on the supply side mean that the acceptance of the new and unfamiliar will accordingly also remain low. Paradoxically, the workflow in HSS requires that scholarly authors deliver "camera-ready" manuscripts

and make significant contributions to finance their book projects in terms of printing costs. However, only a handful of scholars bring to bear the required technical and economic means the system demands of them to develop here, beyond the thresholds of conventional publishing parameters. Evidence from the OAPEN project suggests that with author's financial contributions to production costs publishers place the entire economic risk for peer-to-peer publications on authors and series editors (see, e.g., Adema, 2010). Nevertheless for most book projects, commercial publishers will demand exclusive rights and rarely offer them within a dedicated digital strategy but instead maintain a revenue model dependent on print retail. This corresponds to the generality of authors, editors and publishers displaying strong and at times seemingly ideological reservations regarding innovative approaches such as Open Access, even though the benefits for public dissemination and therefore impact are obvious.

5. The Publishing Format "Monograph" and Digital Research Methods

5.1. Digital Methods and their Outputs

In the humanities and social sciences digital methods and digital resources are increasingly in use - digitality has become a central part of culture and society and "Digital Humanities" can be viewed, alongside Open Access, as one of the most significant and sustained examples of innovation in HSS. We see more and more digital cultural objects and works of art, digital vocabularies, critical digital editions, data journals, primary source studies based on high-resolution retro-digitised content, extensive corpora, georeferenced visualisation (Gazetteers), 3D models, fully searchable interviews, VR-reconstructions, visualised social networks, alongside the respective infrastructure and research environments, software for the said methods and statistical data - plus specialised data modelling and standards (e.g. TEI, RDF, etc.). This explosion has been both overseen by and has informed the setting up of large-scale Research Infrastructures such as DARIAH-EU and CLARIN-ERIC (see Blanke, Kristel, & Romary, 2016). Given the horizontal and vertical complexity of such research data, those objects and methods call for a systematic approach to research data management in respect to all aspects of the corresponding research processes, not just those outputs that directly serve research assessment. They call for high-level skills to formulate appropriate research hypotheses and resulting operationalisation, and to design appropriate data processing workflows and data analysis. At the same time they pose specific challenges in terms of embedding them in the regular workflows of presenting and disseminating research results, i.e. in terms of a new publication model.

While some researchers have become familiar with applying these skills to their primary research or even advancing them with new methodology-oriented research based on the affordances of advanced digital tools and services, most rely on competencies and resources from specialised third parties. This range of digital possibilities puts researchers in the dilemma (Figure 2) that almost anything possible could be implemented in the digital domain, particularly in a state of dependence on third-party resources, but only by ignoring one of the aspects of "easy," "fast" or "good."²

In theory, publishers could embed the aforementioned digital functionalities in their products and disseminate them to the respective stakeholders. In reality, however, the conversion to full digital functionality in the field of scientific

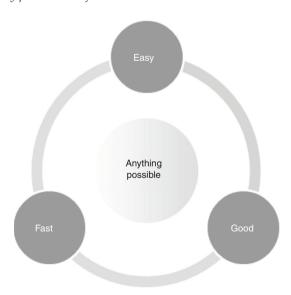


Fig. 2: You can only pick two out of three.

communication in the HSS is still the exception. Conversion even to basic and by now ubiquitous formats and standards such as XML, HTML or epub requires extensive manual and intellectual effort, thus posing additional challenges for products with low economic potential to finance the necessary human effort involved. Only a minority of HSS textual outputs pass automated digital workflows without any loss in accuracy or meaning. Accordingly, SME publishers, unlike the large players in the market, will have more difficulties in scaling the required complex and diversified skills and infrastructures to manage such digital research resources routinely. A new cooperative culture among publishers and scholars could be a remedy; however developing these new forms of collaboration would require time and effort that SME publishers would not easily be able to invest. These general challenges are possible explanations as to why publishers in HSS continue either to publish in print or as PDFs. And although PDFs allow hyperlinking, the full digital potential of, say, embedding digital methods, dynamic data or interactive research is limited (not only in terms of volumes) by text and image formats resembling the two dimensions of print and thus this publication format, the "ubiquitous PDF," levels out the complexity, multidimensionality and ultimately the re-use value of the underlying research.

5.2. Research Results Beyond the Text

Due to format limitations research results have had to undergo such levelling out processes for many decades, resulting in established codices such as the use of indexes, references or citation standards. In the Digital Humanities paradigm, however, we face the challenging situation of missing links between research data, research software and research results as well as their respective versions. How do we encode, acknowledge and keep track of the different versions of the creation of a topic model, the effort of data compilation, annotations to digitised primary sources in archives, refactoring software or creating software as such based on the paradigm of publishing methods and formats that are still in the main tied to the printing process? Such a limited view of publishing formats thus prevents direct traceability of research as well as a media usage lifecycle fully representing the knowledge contained in the discipline and would call for more fluid and complex approaches (see Romary, Mertens, & Baillot, 2016). Ultimately, the phenomenon digitality calls for an adequate publication culture that unlocks the potential of HSS research for science and society.

Doing research under the paradigm of Digital Humanities requires innovative research approaches such as the formulation of testable hypotheses, novel ways of creating primary data and curating secondary data as well as the development of software and their reflexive refinement. As they are more than methodological or technical amendments but increasingly turn into the core research result, they need to reverberate also in the HSS publishing format "monograph." Technical approaches in terms of how to link from the monograph - whether as a printed or digital format - to underlying digital resources such as persistent identifiers (e.g. DataCite DOI), QR codes to bridge media gaps exist, but especially multidimensional and platform-independent forms of publication, have not yet reached a mature state of recognition. Dedicated early career researchers from the Digital Humanities face the challenge of codified expectations around publications for tenure and promotion that seem to leave little or no formally recognised space in research evaluation exercises for experiments or novel solutions (see, e.g., Moulin, 2013). In addition to developing a reliable technical basis for innovative digital (or hybrid) forms of publication, we need a corresponding cultural change, for which established and prestigious institutions should feel some responsibility in promoting such change effectively. Those could be conventional publishing houses with selected series as well as new initiatives emanating from broader-based library cooperations with the academic community (e.g. a monograph extension of the above mentioned OLH).

5.3. Free Access to Research Results

Let us look at the German situation as it amplifies some of the general underlying challenges, for example, those for smaller language areas or highly specialised communities. In 2012 the German Research Foundation (DFG) held the Göttingen workshop "Open Access for scientific monographs" (see the report by Chatzoudis, 2012) aiming to address growing demands for dedicated funding schemes for the HSS. The outcomes of the workshop led to a DFG call for innovative projects for Open Access monographs. The call received a significantly greater number of project proposals than one might infer from the support of only two monograph projects, namely "OA Monographien: Language Science Publications: A publication model for open-access books in linguistics3" and "OA Monographien: Entwicklung eines Geschäftsmodells für Open Access Monographien anhand des Pilotprojektes Heidelberg Studies in Transculturality"⁴ (developing a business model for Open Access monographs

from the pilot project Heidelberg Studies in Transculturality). Both projects included innovative elements of the actual medium itself; the central development idea, however, seemed to be the development of new business models. Looking at the solutions the conventional market offers, it becomes obvious why the DFG call put business models under scrutiny. The for-profit publisher Walter de Gruyter launched a dedicated OA publication model for books, as did Palgrave MacMillan⁵ and Springer Open.⁶ However their fees for an Open Access monograph pose a serious barrier to research dissemination, for example, de Gruyter started their model at 15,000 EUR (although they have recently lowered the price to 10,000 EUR to address criticism). The Open Access monographs funding scheme of the Austrian Science Fund,⁷ which was implemented in cooperation with commercial publishers, on first sight looks convincing⁸ as researchers do not need to change their publishing behaviour and publishers can adopt Open Access without any economic risk or need to innovate. Given the substantial contributions from authors and editors to create and curate the content, however, it is questionable whether this funding model scales to really address the crisis of the monograph through the Open Access paradigm as such or carries any significant transformative potential besides making more Open Access content available. The mission-driven university presses embedded into their institutions9 or more independent UPs such as Amsterdam or Leuven and innovative publishers like Ubiquity Press¹⁰ or Open Book Publishers, ¹¹ have been routinely publishing in the Open Access model for many years now, and in the interest of scientific institutions. The mentioned alternatives are gaining momentum, but the majority of the commercial players seem to lack proven business and revenue models and experience, to which all stakeholders of the value chain in scholarly publishing could turn.

6. Possible Remedies

In fields where the most prestigious publishing houses have sufficient potential for innovation, such as the great Anglo-American university presses and publishers like Brill and Routledge, the influence of authors and promoters in terms of more Open Access has to date been relatively weak and therefore ripe for bolstering. Given the above about the changing nature of digitally-enabled research in the humanities as such, one could argue that realising the full range of corresponding research outputs should be achieved entirely

outside of the print paradigm and instead focus on digital monographs in which, at the very least, hyperlinks to other digital resources would be routinely integrated, as in the case of electronic articles. However, this would stand in opposition to the still widely established reading habits concerning printed monographs – and furthermore would not particularly solve the aforementioned dilemma for authors, given the critical certification function of the printed monograph. So the question is, what forms of closer integration between printed monographs and digital resources could there be? We therefore propose to develop in close cooperation with researchers, infrastructures and other relevant stakeholders (including publishers) such formats that will support open-ended and experimental projects for establishing a monograph culture capable of exploiting the full potential of digital delivery and the scope of digitally-enabled research without doing away with the advantages of the conventional form. We envisage six action points that could be fruitfully addressed, refined and implemented through joint discussion and the efforts of multiple stakeholders:

- Creating multiple bridges between media types: effecting greater transparency and ethical robustness of research by adopting technical, logistic and methodological approaches that bridge the existing gap among published digital resources and their underlying primary data, in addition to cited scientific publications (rich contextualisation via linked data; interoperability of current monograph publishing platforms (for example, building on and extending the H2020 supported HIRMEOS project).
- Enable enhanced publications by building on conventional formats: the support of parallel print and digital editions economically and technically, with pragmatic revenue and business models for monograph production and dissemination enabled in part via enhancing publications with standardised persistent identifiers for all digital objects, names (including their authors), places, dates and corporate entities (organisations, companies, institutions, etc.); as an example, wide scale application of multilingual NER (named entity recognition) and disambiguation technologies, developed *from within* the community, such as (N)ERD from INRIA. Monographs could then become 'gateways' to other digital offerings from any given source, but also from the respective publishers themselves that might support new digital affordances in their production.

- Bring research processes and research result dissemination closer together: technical and organisational developments such as novel publishing platforms for digital products and data for humanities research, pushing forward the adoption of overlay technology especially in the Humanities, and further means of recording and opening up the iterative stages of research (open methodologies), linking out from monographs.
- Interlink printed and digital material: user-friendly procedures to reference from printed literature to digital resources and back, for example, by deepening collaborations with libraries in the representation of both print and associated digital objects via electronic catalogues, indexes and bibliographies, using linked data and other semantic linking as underlying infrastructure; examples of such systems are already in production, such as the open source D:SWARM.¹²
- Improve and extend data citation practices: develop and promote with and through the researcher community, guidelines on good practice in data citation (going beyond research data to cultural heritage data and annotations data, for example, in the humanities and social sciences, as well as working more closely with the GLAM¹³ sector to enable greater linking of research publications with digital manuscripts and archival material)
- Develop appropriate research assessment, evaluation and acknowledgement regimes: approaches for innovative methods of assessment, evaluation (such as open peer review or post-publication certification via overlay platforms), impact measurement, and participation by working with and through publishers and platforms, research funders and councils as well as ministries of research; introducing novel ways of measuring the impact of and acknowledgement for collaborative works among individuals, groups or infrastructures; formal partnerships between researchers and collection-holding institutions, with new forms of appropriate to citing cultural heritage institutions themselves, as explored by the Cultural Heritage Data Re-Use Charter.¹⁴

The proposed action points are open for discussion and ideas for implementation online.¹⁵ We are convinced that the existing research and application landscape shows promising approaches to address the challenges outlined regarding the monograph-oriented disciplines. Meanwhile, there are 24 registered courses in Germany¹⁶ (advanced, B.A., Master, summer schools), to which the term Digital Humanities has been assigned, while the association "Digital

Humanities im deutschsprachigen Raum" (DHd)¹⁷ has seen significant growth over the last years and currently has over 300 members. On the international level we see for example the Alliance of Digital Humanities Organizations (ADHO)¹⁸ that serves as an umbrella organisation for several national initiatives. The recently launched Digital Humanities Course Registry,¹⁹ overseen jointly by DARIAH-EU and CLARIN-ERIC also indicates an ever-growing provision in courses teaching aspects of new methods in the digitally-enabled arts and humanities. Scholars enrolled in such bodies, can draw upon well-established platforms and tools available, including TextGrid and CENDARI with their active user communities, vibrant networks and infrastructures such as the aforementioned infrastructures, DARIAH-EU or CLARIN.

Nevertheless it shouldn't be taken for granted that, with the rise of new research frameworks, publication channels will follow along effortlessly. If we take the four core functions of publishing into account again, a) the registration, b) certification, c) the dissemination, and d) the archiving, it becomes obvious that the optimal digital potential of the monograph won't be unlocked with conventional approaches. Which object and what persistent identifiers do we refer to when citing, what are the novel reputation-gaining processes and which of those become dominant, what are the distribution channels for innovative monographs and their complementary research data and how do we maintain them and their interlinking over time? These are just a few of the still open questions, only a handful of which is being explored in experimental approaches such as "shared canvas," the data model that attempts to reimagine the registration function in terms of this new context for the scholarly monograph (Sanderson & Albritton, 2013). If within these four mentioned publication functions the potential of digitality cannot be unlocked, innovative research fields face a specific disadvantage: either publications will fall too short as mentioned in regard to qualification work for tenure and promotion, or they remain unsatisfactorily flat where, for example, linkage of publication and digital primary data is not exploited, although the research design would indeed call for this. As long as the symbolic capital of reputation-building for authors rests on the reputation of the respective publishers, the four publishing functions in a new setting would need to be developed together with publishers, namely publishers that are actively concerned to have a meaningfully co-operative relationship to science. The signs in the market are promising: more and more publishers offer Open Access options for set fees. At the same time the range and variability of such fees in terms of Open Access monographs – mostly in a simple PDF format – give cause for concern, for within this limited framework publishing opportunities for scholars using increasingly

advanced digital methods become even more scarce and thus a bottleneck for career opportunities.

Against this background, it is understandable why in February 2015 the Andrew Mellon Foundation American university presses successfully launched a call²⁰ for project proposals for innovative forms of publication in Digital Humanities contexts (Straumsheim, 2015). For such a call in continental Europe the aforementioned mission-driven university presses with their Open Science approach would be a perfect match, especially those run as service institutions at the respective universities or their libraries. Commercial publishers already active in Open Access, and implementing it for certain projects, should also play a role in the development of the digital potential of the monograph. Within an appropriate funding policy these publishers could accompany Digital Humanities projects according to the needs of the scholarly community and the public to develop access and business models to exploit the potential of the digital work and meeting all four functions to realise the full digitality of the monograph.

The authors wish to thank Daniel Beucke, Stefan Buddenbohm, Laurent Romary, and Birgit Schmidt, whose ideas and contributions have been incorporated into this text.

References

Adema, J. (2010, March 8). *Overview of Open Access models for eBooks in the humanities and social sciences*. Retrieved August 16, 2016, from http://project.oapen.org/images/documents/openaccessmodels.pdf.

Annual Reports of the German National Library. (2013–2015). Retrieved September 2, 2017, from http://www.dnb.de/DE/Wir/Publikationen/jahresberichte.html.

Blanke, T., Kristel, C., & Romary, L. (2016). Crowds for clouds: Recent trends in Humanities Research Infrastructures. In A. Benardou, E. Champion, D. Costis, & H. Lorna (Eds.), *Cultural heritage digital tools and infrastructures* (Chapter 4). Abingdon, UK: Taylor & Francis Group. Retrieved August 16, 2016, from https://arxiv.org/ftp/arxiv/papers/1601/1601.00533.pdf.

Chatzoudis, G. (2012). *Open Access für wissenschaftliche Monographien*. DFG-Workshop vom 09.05.2012, Niedersächsische Staats- und Universitätsbibliothek Göttingen. L.I.S.A, Das Wissenschaftsportal der Gerda-Henkel-Stiftung. Retrieved August 16, 2016, from http://www.lisa.gerda-henkel-stiftung.de/beitraege?what=tag&search_tag=DFG+Workshop.

Cuban, L. (2015, June). *School reform and classroom practice: The dilemma of fast, cheap, and good: You can only pick two*. Boulder, CO: National Education Policy Center. Retrieved August 16, 2016, from http://nepc.colorado.edu/blog/dilemma-fast-cheap.

Dallmeier-Tiessen, S., & Lengenfelder, A. (2011). Open Access in der deutschen Wissenschaft – Ergebnisse des EU-Projekts "Study of Open Access Publishing" (SOAP). *GMS Medizin – Bibliothek – Information, 11*(1–2), Doc03. https://doi.org/10.3205/mbi000218.

Eve, M.P. (2014). *Open access and the humanities – contexts, controversies and the future*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9781316161012.

Greco, A.N., & Wharton, R.M. (2008). Should University Presses adopt an Open Access [electronic publishing] business model for all of their scholarly books? In L. Chan & S. Mornati (Eds.), *Open scholarship: Authority, community, and sustainability in the age of Web* 2.0 (pp. 149–164). Proceedings of the 12th International Conference on Electronic Publishing, ELPUB2008, Toronto. Retrieved August 16, 2016, from http://elpub.scix.net/data/works/att/149 elpub2008.content.pdf.

Moulin, C. (2013, June 12). *Je t'aime, moi non plus. Career, financing and academic recognition in the Digital Humanities* (#dhiha5). Retrieved March 25, 2016, from http://annotatio.hypotheses.org/303.

Romary, L., Mertens, M., & Baillot, A. (2016). Data fluidity in DARIAH – pushing the agenda forward. *Bibliothek Forschung und Praxis*, 40(2), 151–165. https://doi.org/10.1515/bfp-2016-0039.

Roosendaal, H.E., & Geurts, P.A.Th.M. (1997). Forces and functions in scientific communication: an analysis of their interplay. In M. Karttunen, K. Holmlund & E.R. Hilf (Eds.), *CRISP 97 Cooperative research information systems in physics* (n.p.). Retrieved August 16, 2016, from http://www.physik.uni-oldenburg.de/conferences/crisp97/roosendaal.html.

Sanderson, R., & Albritton, B. (2013, February 14). *Shared canvas data model*. Retrieved August 16, 2016, from http://iiif.io/model/shared-canvas/1.0/index.html.

Straumsheim, C. (2015, February 25). *Piecing together publishing*. Inside Higher Ed. Retrieved August 16, 2016, from https://www.insidehighered.com/news/2015/02/25/researchers-university-press-directors-emboldened-mellon-foundation-interest.

Notes

¹ See e.g. SOAP study, Dallmeier-Tiessen and Lengenfelder (2011).

 $^{^{2}}$ Adopted from the "fast, cheap or good" dilemma of project management, see, e.g., Cuban 2015.

- ³ http://gepris.dfg.de/gepris/projekt/244036188 [Accessed October 2015].
- ⁴ http://gepris.dfg.de/gepris/projekt/243780697 [Accessed on 23.10.2015].
- ⁵ De Gruyter: https://www.degruyter.com/dg/page/open-access; or Palgrave Macmillan Open: http://www.palgrave.com/open/faq.asp#section2; O'Reilly Open book: http://oreilly.com/openbook/.
- ⁶ http://www.springeropen.com/books Usually quoted as 15,000 EUR in presentations given by Springer representatives.
- ⁷ http://www.fwf.ac.at/de/projects/selbststaendige_publikationen.html.
- ⁸ In the programme referred to, the support funds available are some 14,000–20,000 EUR for a hybrid publication. In the case of the majority of publishers, this would allow an Open Access option while eliminating practically all risk. The question of whether a publicly funded risk insurance for the private sector, which in large part consists of for-profit institutions, is both a desirable and/or an inevitable effect of such a programme could not be fully answered due to the natural limitations of the project's brief. This facet could however be pursued in further dedicated research projects.
- ⁹ See for instance those organised in the working group of university presses of the German language area.
- ¹⁰ http://www.ubiquitypress.com/, the business model requires author contributions starting at 3,400 GBP for a monograph of medium size.
- ¹¹ http://www.openbookpublishers.com/, prizes in a comparable range to Ubiquity Press.
- ¹² http://www.dswarm.org/ (Accessed August 2017).
- ¹³ Galleries, Libraries, Archives, Museums.
- ¹⁴ See a poster of the first version at http://doi.org/10.5281/zenodo.345883. The charter process is being sponsored by DARIAH-EU, Europeana, PARTHENOS and Archives Portal Europe. The charter will be updated, based on the results of an extensive survey during 2017.
- ¹⁵ <u>https://etherpad.gwdg.de/p/DARIAH_openmonogr</u>; please use #openmonogr to disseminate in social media.
- ¹⁶ See the CLARIN and DARIAH registry at https://registries.clarin-dariah.eu/courses/.
- ¹⁷ See also the Association's web site (in German) http://www.dig-hum.de/ueber-dhd.
- 18 http://adho.org/.
- ¹⁹ https://registries.clarin-dariah.eu/courses/ (Accessed August 2017).
- 20 https://www.upress.umn.edu/press/press-releases/manifold-scholarship and https://www.upress.umn.edu/press/press-releases/manifold-scholarship and https://www.upress.umn.edu/press/press-releases/manifold-scholarship and https://www.upress.umn.edu/press/press-releases/manifold-scholarship and https://www.upress-awarded-12-million-publishing-interactive-scholarly-works.