

An Emerging Scholarly Form: The Digital Monograph

Massimo Riva Department of Italian Studies Brown University

Abstract

Two recent initiatives, in the English-speaking world, are currently promoting monograph publishing in digital formats, with a specific focus on the arts and humanities but also including the social sciences. The American initiative is funded by the Andrew W. Mellon foundation; in the U.K., the Arts and Humanities Research Council has also promoted a similar initiative, the Academic Book of the Future, which produced a final report released in Spring 2017. This article describes some of the challenges and opportunities the author and his team are facing in designing a digital monograph on eighteenth and nineteenth-century visual culture, one of two pilot projects of the Brown University library Digital Publishing Initiative, funded by the Mellon foundation.

Published 28 December 2017

Correspondence should be addressed to Massimo Riva, Brown University, 190 Hope St., Providence, Rhode Island 02912, USA. Email: massimo_riva@brown.edu

DigitCult, Scientific Journal on Digital Cultures is an academic journal of international scope, peer-reviewed and open access, aiming to value international research and to present current debate on digital culture, technological innovation and social change. ISSN: 2531-5994. URL: http://www.digitcult.it

Copyright rests with the authors. This work is released under a Creative Commons Attribution (IT) Licence, version 3.0. For details please see http://creativecommons.org/licenses/by/3.0/it/



DigitCult 2017, Vol. 2, Iss. 3, 63–74.

Two Initiatives

Two recent initiatives, in the English-speaking world, are currently promoting monograph publishing in digital formats, with a specific focus on the arts and humanities but also including the social sciences. The American initiative is funded by the Andrew W. Mellon foundation; in the U.K., the Arts and Humanities Research Council has also promoted a similar initiative, the Academic Book of the Future, which produced a final report released in Spring 2017. As Guyda Armstrong and Marilyn Deegan write in reference to the latter:

"The Project was conceived of in response to widespread concerns about books, publishing, libraries and the academy. Declining monograph sales, rising serials prices, funding problems, rapidly-changing new technologies, shifting policy landscapes, increasing pressure on academics to do more with less, all contributed to a sense of unease about the health of the academic book in the arts and humanities, and indeed about the health of the disciplines themselves."¹

And as Donald Waters, in charge of the Mellon program, wrote in an essay published in 2016:

"How do universities best shape the formation, interpretation, and dissemination of knowledge to emerging public needs and media? What features define the quality of scholarly argument? If the monograph is increasingly being challenged as a viable component of systems of scholarly communications, what other genres are needed to disseminate knowledge in the humanities?"²

It is clear from these two quotations that both these initiatives intend to address a broad variety of concerns and issues, in their respective contexts.³ In what follows, I'll limit myself to commenting on some of the questions raised by Waters, while touching upon some of the issues raised by Armstrong and Deegan, basing myself on my own experiences with this digital format.

My current work-in-progress is one of two pilot projects of the Brown University library Digital Publishing Initiative, funded by the Mellon foundation. Both pilot projects aim to produce two varieties of "digital monograph": a multimedia edition of a seventeenth century book, and a study in eighteenth and nineteenth century visual culture (my project). A third partner in this initiative will most likely be a U. S. university press, or presses, although at this stage still unidentified. The initiative in question thus involves three main subjects: 1) the author (or authors), e.g. individual scholars; 2) a university library which, as we shall see, is a relatively new subject as far as scholarly *publication* is concerned, but plays a fundamental role in this venture which is both technical and institutional; 3) a university press, as the publisher and distributor as well as the guarantor of the academic product and its quality, based on peer reviewing and well established editorial practices.

In this article, I will adopt the point of view of the author: I will reflect on my experience in progress, addressing some of the issues raised by the process of authoring, producing, and eventually publishing a digital monograph. In discussing some of the many and diverse issues that come into play, intellectual or technical, institutional or economic, etc., I will express my personal point of view as an individual scholar engaged in what is, in fact, an exquisitely

¹ Marilyn Deegan and Guyda Armstrong, "Reflections on the Academic Book of the Future," forthcoming in the e-journal *Humanist Studies and the Digital Age*, http://journals.oregondigital.org/hsda. A version of this article also appears as Chapter 8 in The Academic Book of the Future Project: A Report to the AHRC and the British Library, London, 2017.

² Donald Waters, "Monograph Publishing in the Digital Age," https://mellon.org/resources/sharedexperiences-blog/monograph-publishing-digital-age/ (originally published in the July 2016 issue of Against the Grain, http://www.against-the-grain.com/2016/07/v28-3-monograph-publishing-in-the-digitalage-a-view-from-the-mellon-foundation/ - restricted to subscribers).

³ Already in 1999, Robert Darnton spearheaded this discussion in a seminal article on *The New York Review of Books*: "The best case to be made for e-books concerns scholarly publishing, not in all fields, but in large stretches of the humanities and social sciences where conventional monographs—that is, learned treatises on particular subjects—have become prohibitively expensive to produce." [http://www.nybooks.com/articles/1999/03/18/the-new-age-of-the-book/]. In that article, he also addressed some of the issues that we are now revisiting, within a much changed and more challenging environment, as I try to address below.

collaborative enterprise, even more so than the writing of a "book." This point cannot be overstressed: not only it is in the nature of digital culture to leverage distributed and collaborative forms of knowledge work, embedded in the amazing array of networked resources becoming available to scholars every day - and a *digital* monograph should indeed make the most of this "infrastructural" richness-but a digital monograph, even a single-authored one, by its very conception and design, requires team-work at a fundamental, cognitive level. The knowledge-exchange made possible by this close collaboration of different competencies, scholarly and technical, in particular, has undoubtedly been for me the most rewarding aspect of this experience, so far. It has forced me to see my own work, and role as an "author," in a different light, and has compelled me to concern myself also with "technical" problems and solutions for what remains, from my point of view, primarily an intellectual, scholarly enterprise. In dialogue with the aforementioned essays, I will first address some of the general characteristics that this new scholarly genre, and/or format, "should" or may have, within the current digital ecology. In doing so, I will focus in particular on the process of researching and writing my digital monograph. My contribution will inevitably be anecdotal, indeed centered on my own individual experience and the specific challenges encountered in giving shape to my project: a very specific one, as the "mono" in monograph also entails, if referred not simply to a "single-authorial" mode of production but also to the subject matter of the project in question, even if conceived within an inter- or trans-disciplinary conceptual framework. One of the questions I will pose – and perhaps the most relevant for me at this stage – is whether, and how, the process of researching and writing a digital monograph differs from that of researching and writing a (printed) "book". This question could also be reformulated as follows (a reformulation of some of the questions posed by Waters in the quotation above): to what extent does the way we do research in a networked environment affect the way in which we conceive a monographic scholarly product, in digital format? An answer to this question implies that the transformation of the "academic book of the future" is inseparable from the transformation of our research infrastructure, as a whole, including in particular current and emerging forms, or genres, of scholarly communication.

From the "Book" to the "Digital Monograph"

In our digital environment, it is increasingly difficult to separate the process of researching and writing from the publication of the results of research in writing: the latter is what (printed) books did, and do, eminently well, embodying the contribution of an individual scholar, often the outcome of years of research, to the collective knowledge of a given subject or field (and in some cases the redefinition of that very subject or field). However, the increased speed of scholarly communication and the ease with which we can today "publish" or "share" what we may call "snapshots" of our research in progress, even in provisional form, make the concept of a slowly-accumulated "monograph" less epistemologically stable, or socially practical. In other words, as part of a networked scientific community, a scholar nowadays has many more opportunities to communicate, almost instantaneously, with his or her peers, sharing the output of his or her research in progress, almost on a daily basis (if he or she so wishes). And yet, the monograph (the "book") remains the fundamental form of evaluation of scholarly work in the humanities, linked to the dissertation as a scholarly rite of passage, and a legal document, on the one hand, and thus a fundamental feature of how academic institutions and careers in the humanities are structured (with tenure looming large in the U.S. as an official seal of academic quality, autonomy and integrity). The question then rises: should a digital monograph do what a book currently does for a scholar (and by extension, for the scholarly community at large, with its vested interests represented by professional societies such the Modern Language Association, or the American Council of Learned Societies, etc.) practically embodying the scholar's status within the profession? Or should the digital monograph, instead, do more and help reconfigure this status, adapting it to the process of knowledge production as it is reconfiguring itself within a networked culture, increasingly a collaborative, open-ended, socialized loop? Which is another way of asking whether the (printed) book should remain, if not the only, at least the primary, material embodiment of a scholar's contribution to the humanities, or whether it should be replaced by other forms of certification. In practice, this has already been happening for many years, as scholars have had increased opportunities to publish, or make public, and "popularize," their work in a variety of ways, and venues, in short- or even longer forms. Recent attempts to re-establish a qualitative hierarchy in the venues and formats of publication, privileging those that have the *imprimatur* of the scholarly community, whether

electronic or not (through peer reviewing but also the prestige of certain presses or journals, etc.), also reflect this state of affairs, with scholars taking advantage of faster, and often more effective ways of reaching their readers and their peers, whether within or outside their community of reference. Paradoxically, this is happening as the academic world tries to respond to pressing invitations, from outside but also within its own ranks and institutions, to make its scholarly output more accessible to lay readers, thus providing the evidence, and justification, of its public relevance: something that the sciences are under less pressure to demonstrate (even in the current environment, in which the reliability of information is guestioned and public trust in science, or scholarly procedures, eroded). The status of a public intellectual may or may not be commensurate to his or her own reputation within the scholarly community, and a (printed) book may indeed be the vehicle for a scholar to acquire that status which often coincides with a readership which extends far beyond the confines of his or her immediate scholarly community. Other forms of publication and communication, such as blogs, or even social media, can also provide a vehicle, of course. Yet, the question at hand is another: whether publishing the equivalent of a book in a digital format may also provide an opportunity to bridge the gap between the scholarly community and the public at large, as well as a bridge between the "book" and those other forms of publication, dissemination and communication that are becoming increasingly pervasive.

As an innovative experiment in scholarly communication, a digital monograph should not aim to simply re-produce what a book does. Indeed, one of the main reasons it is worthy, and necessary, to experiment with the idea of a digital monograph is in order to take advantage of a research infrastructure which in the past decades has transformed itself in radical ways. One of the consequences of this transformation is that, as digital archives and libraries come online, direct access to information, or "sources," whether in digitized or born-digital formats, has increased exponentially, making what a (printed) book also did, in providing selected access to independently and often painstakingly researched sources from archives and libraries, less essential, if not less intellectually useful or challenging. Of course, it is difficult to generalize, since the use or re-use of previously known or lesser known sources, and documents cannot be entirely separated, in a book, from the argument that a scholar builds in connecting or analyzing his or her sources. Books are published every day in which new, previously neglected, or forgotten sources are re-discovered. And the value of a scholarly book can be based not on the newness or originality of its sources but on the novelty of the argument made with their help. Yet, the availability of sources on a massive scale is also bound to tip the balance between what we may call the argument and the apparatus of a publication, from at least two points of view: compelling scholars to provide viable analyses of larger aggregates and perhaps also modify the way his or her argument is made. This has substantial methodological and perhaps also theoretical consequences which can affect the way in which a digital monograph is conceived.

This is evident in the increasingly crucial importance attributed to data mining and processing in the humanities which often implies not only a different way of looking at problems or topics but the very re-formulation of those problems or topics within a certain disciplinary field, or cluster. (This reformulation, in turn, can be affected by the way new analytical tools become available). Yet, this shift may not be limited to the substitution of "qualitative" with "quantitative" sources or the ingenious ways in which we increasingly elaborate, compare or combine those sources, and the creative methodological innovations this requires: indeed, it may also increasingly affect the way we read and write, to begin with, as we increasingly read and write in an environment in which reading and writing (printed) books, or even "books" in electronic format, on Kindles and tablets or smart-phones, is only a part, or even a fraction, of our daily practice. This, of course, has not only an effect on the increasingly fragmented way we read and write (I won't go deeper into this issue here but there are of course many studies which address it) but also on the fragmented way we increasingly think: indeed, the qualitative nature of our reasoning, or interpretation of our sources or data, is inevitably affected by our "making sense" of analytical procedures capable of parsing sources and data on an exponentially larger scale. Again, the issue is: how much of this shifting balance should a digital monograph (as opposed to a "book" conceived for print or electronic publication) reflect?

Features and Challenges.

The following are the characteristics that a digital monograph should possess, according to Donald Waters, who leads the program established by the Andrew W. Mellon foundation in 2013 (https://mellon.org/resources/shared-experiences-blog/monograph-publishing-digital-age/):

"In 2013 we began focusing on long-form research publications in the humanities, and particularly the monograph. As a result of this process, we created a working set of the features of the monograph of the future as we heard it described in our meetings across the country" (see Fig. 1).



Fully interactive and searchable online with primary sources and other works



Portable across reader applications



Able to support a user's annotations independently of any particular reader technology

High quality as judged

by peers



Capable of supporting metrics of use that respect user privacy



and awards

Reviewed and eligible

for disciplinary prizes



Maintained and preserved in its digital form



Expertly marketed, widely accessible, and owned (not rented) by the reader



Economically sustainable

Figure 1. Features of the monograph of the future.

Each of these points could (should?) be considered by a scholar embarking on the project of writing a digital monograph, in order to decide whether the subject, or topic, as well as the process of his or her research, can benefit from any or all of these properties, enhancing the format of the "book" he or she wants to write, and thus become part of a digital monograph workplan. In a way, it is precisely what I myself did, as I jumped at the opportunity to reconvert, and reformulate, the plan of the book I was researching and wanted to write when Brown University announced, in the spring of 2015, the launching of its digital publishing initiative, thanks to a substantial grant received from the Mellon foundation. The book I had envisioned, an archaeology of Virtual Reality in the eighteenth and nineteenth century, focused on five casestudies featuring five optical spectacles: from the cosmorama, the magic lantern and the phantasmagoria to the moving panorama and stereoscopic photography. In my book, I intended to connect these forms of popular visual culture with historical figures of Italian modernity (from Casanova to Garibaldi), representative of broader social, political and cultural dynamics (see Fig. 2).

It was easy to envision a lavishly illustrated book: most likely too expensive to produce in a printed format, both for copyright and technical (quality) issues. In the economic range of scholarly monographs, the book I envisioned would have definitely fallen on the high end of the curve, as quantified by a study published in early 2016 (see Fig. 3).⁴

However, economic considerations had only a relative weight on my decision to switch my project to a digital publication, since the cost of a digital monograph could also greatly vary, according to the same source (see Table 1).

⁴ Nancy L. Maron, Christine Mulhern, Daniel Rossman, Kimberly Schmelzinger, "The Costs of Publishing Monographs. Toward a Transparent Methodology" DOI: https://doi.org/10.18665/sr.276785

Mondo Nuovo/ Co smoram a	M agic Lanter n/ Polem oscope	Phantasmagoria	M oving Panorama	Stereoscop Photograpi
The World in a Box: Virtual Travel and the Popularization of the Grand Tour	Casanova's Polemoscope: Social Voyeurism and the Panoptical Self	The Great Belzoni's Show: Phantasmagoria and the Egyptian Fashion	Panoramic Super-Hero: Garibaldi and the Making of Instant History	Mini grand Tour 3D: Virtual Tourism an Stereoscopi Memory
An imaginary journey inside "The Mondo Nuovo" by Giandomenico Tiepolo (1791)	A Magic Lantern show featuring episodes from <i>Histoire de ma</i> <i>vie</i> and <i>Jossameron</i>	A 3D simulation of Belzoni's 1821 exhibit of Seti's Tomb at Egyptian Hall	A simulation of the Garibaldi panorama spectacle Nottingham 1861	A Virtual to of Souther Italy based an 1890s Underwood& Stereoscopi kit

Figure 2. A work about Virtual Reality in the eighteenth and nineteenth century.

	Publications	Services	People	Events	Blog		Search			م_
THAKA S+R	The Co				Мо	nogra	aphs			
	All Publications TABLE OF CONTENT	NTS			P DF	PRINT	f	CITE	-	
	February 5, 20 The Costs of I Toward a Trans Nancy L. Marc Schmelzinger DOI: https://d	Publishing Me sparent Methoc on, Christine M	dology Mulhern, Daniel Rossman, Kimberly			S T. O	TOPICS Scholarly communication TAGS Monographs Open access Publishing costs			

Figure 3. A study about the costs of publishing monographs.

Table 1. Full cost of a high-quality digital monograph (excluding in-kind cost).

Group	Group Average	Group Median	95 th Percentile	5 th Percentile	Highest Cost Title	Lowest Cost Title
1	\$30,091	\$27,955	\$57,991	\$18,678	\$65,921	\$16,401
2	\$44,906	\$42,851	\$69,417	\$26,292	\$129,909	\$19,516
3	\$34,098	\$33,199	\$53,084	\$18,149	\$76,537	\$15,140
4	\$49,155	\$48,547	\$73,885	\$31,760	\$99,144	\$24,234

Needless to say, the prospect of having the help of the Brown library and, through it, the financial support of Mellon, was one of the reasons why this conversion of my project attracted me - in addition, of course, to my previous experience with digital ventures which involved also a productive collaboration with our library. Yet, when my project was selected as a pilot for the library new digital publishing initiative, what really excited me was the very nature of my topic: in which the visual component - being focused on the genealogy of modern visual culture - was so central, and not only, as we shall see, from the point of view of the subject matter but also from that of the very argument I wanted to "build." Leveraging the vast reservoir of images or videos documenting my objects of research available on the web, or in library and museum archives, or even private collections, and doing it in an innovative way, made possible by the dynamic flexibility and multimedia capability provided by a digital platform, would have made the "illustration" of my argument much richer, easier, and more effective. Yet, what became almost immediately clear to me is that more than just finding effective, and perhaps also more economic, and more user-friendly ways of "illustrating" my argument was at stake. I came up with a term to conceptualize my five case-studies, calling them "epistemological tales": in each case-study, a narrative component, reconstructing the "spectacle" or type of performance in question, was to be coupled with an investigation of the transformative power of visual experiences, popularized by forms of "optical entertainment" in which scientific and technological "experiments" or manipulations were performed as amusing (or frightening) tricks or illusions, along the lines described by a recent book by Steven Johnson.⁵ Without going into too much detail, in my contribution, I wanted to show how this process affected the collective representation of Italy as a "virtual" destination, in the eighteenth and nineteenth century; and how certain popular Italian characters or authors, from Casanova to Garibaldi, on the threshold between popular and "high" culture, were among the protagonists, or the beneficiaries, of this transformation in the media system of their time. Finally, I wanted to show how the performative "virtual realism" which informs those optical spectacles from the past foreshadows certain key aspects of our contemporary digital culture, from virtual travel and social voyeurism to the spectacularization of "instant history" in modern infotainment society. One of the issues I had to struggle with, therefore, was how to link the stories I wanted to tell, exemplifying various aspects of this general process of "virtualization" of social experience, and the multimedia apparatus I wanted to build in order to both illustrate the five case-studies and develop my argument. The solution I found, perhaps the most important cognitive leap in the process of re-thinking my book as a digital monograph, is that each chapter will feature a digital "simulation" of an analogue spectacle from the past: showing, on the one hand, how these spectacles worked, in a dynamic reconstruction based on historical documentation, which includes images, textual descriptions, etc., translated into a series of dynamic visualizations; and problematizing, on the other, the way in which our digital technology allows us to re-produce those visual experiences from the past, while inevitably affecting the way in which those experiences are re-produced, re-presented or re-imagined (this is also the reason why I chose the term "simulation"). In at least one case, the chapter, or module, about the Garibaldi panorama, we will have to build on top - so to speak or in connection with, a collaborative project which is already available on the web, and which to many extents exemplifies both the challenges and some of the solutions that a digital "monograph" has to face and hopefully will find, within a networked environment. In short, rethinking my book as a digital monograph compelled me to shift the weight of my argument from the written to the visual component, embedding as much of my argument in the latter. At the same time, this also required a substantial shift in my writing strategy, reducing the overall "weight" of the textual component (from in excess of 100.000 words, in its first envisioned draft, to about 60.000 in the current plan) but investing the written text with a new crucial function: supporting the visualizations (in the shape of captions or internal annotations), on the one hand, and providing a narrative frame which allows the reader to connect the various visualizations among themselves, and follow a path toward some theoretical and methodological conclusions.

If this was and is the main challenge that my project poses for my team and I, there are other features of a digital monograph that require an adaptive way of thinking, in order to translate a book into its digital "equivalent." As Guyda Armstrong and Marylin Deegan write in their aforementioned essay: "Scholarly monographs, even the simplest of them, and even in print form, have intricate organizational structures, notes, indexes, tables of content, sections, tables, and/or illustrations. Given this, they are not particularly well served by current ebook reading devices; enhanced monographs might represent better the complexities of scholarly

⁵ Steven Johnson, Wonderland. How Play Made the Modern World, New York: Penguin, 2016.

argument than the less functional ebook."⁶ Robert Darnton's idea of a pyramidal structure, in the aforementioned article (see note 3, above) is still perhaps one of the most stimulating propositions, as far as an alternative to a "monolithic" monograph is concerned:

"The top layer could be a concise account of the subject, available perhaps in paperback. The next layer could contain expanded versions of different aspects of the argument, not arranged sequentially as in a narrative, but rather as self-contained units that feed into the topmost story. The third layer could be composed of documentation, possibly of different kinds, each set off by interpretative essays. A fourth layer might be theoretical or historiographical, with selections from previous scholarship and discussions of them. A fifth layer could be pedagogic, consisting of suggestions for classroom discussion and a model syllabus. And a sixth layer could contain readers' reports, exchanges between the author and the editor, and letters from readers, who could provide a growing corpus of commentary as the book made its way through different groups of readers."

Yet, this pyramidal structure, with its "layers," would have to be re-thought within a networked environment where "vertical" reading is largely reconfigured as "horizontal." While some of the features listed by Waters in his 2016 essay may present themselves as "technical" problems, however, they all have a relevant conceptual dimension. What writing was intended to do, in a "book" in which the written text is central and paratext or illustrations played a supporting role, now translates into a design issue whose solutions necessarily come from a collaborative effort in which the technologists working on the design and production of the digital monograph have a key "authorial" role. The team I work with, thanks to the Mellon grant and the creation of a digital publishing unit within the Brown library, includes an editor (Allison Levy), a designer (Crystal Brusch), and two digital humanists and librarians (Elli Mylonas, Patrick Rashleigh): the best answers to practically all the problems I am outlining here have emerged from a collective brainstorming in which my own authorial goals are consistently balanced with the "technical" authorial goals of finding the best, most user-friendly, practical, yet cognitively innovative delivery solution. With this in mind, let me now go back to the features that a digital monograph could or should have, according to Waters and the Mellon guidelines.

1. "Fully interactive and searchable online, with primary sources and other works"

As already explained, I wanted to incorporate both visual and textual sources, perhaps as annotated databases, or curated collections, linked from such diverse museums or digital libraries resources such as the Getty institute library, the Museum of Cinema in Turin, Hathi Trust, or from the Brown library digital repository, and organized through enhanced bibliographical tools such as Zotero or the likes. This entails a rather cumbersome process of keeping track (and often copies, on my computer or the cloud) of all my sources, including those available more generically from e-journals, web sites, blogs, etc., in addition to printed sources, non-digitized books, or newspapers and magazine articles that I want to make available to my readers (in their original form and not through my summaries or paraphrasing). If, in my case, as far as primary sources are concerned, being mostly from the eighteenth and nineteenth century, copyright is not a major issue, the same cannot be said of images and extended quotations from secondary sources: should the critical apparatus I wanted to make available in interactive digital format also include them (perhaps as links to previews or snapshot views on Google books)? And how to do that without clogging the main text, since these secondary sources need to be also "discussed" or annotated and put into context? Limiting the "interactive apparatus" to primary sources or extending it to a curated "virtual library" of excerpts from the critical texts with which I am in dialogue? More importantly, how to incorporate this potentially enormous interactive apparatus in such a way as not to exercise an irresistible centrifugal pull on my text, or "tale," and core argument? While for a printed book this is primarily a problem of limiting the number and the extension of footnotes, for a digital monograph, this entails shaping or restructuring its entire apparatus.

⁶ Marilyn Deegan and Guyda Armstrong, "Reflections on the Academic Book of the Future," forthcoming in the e-journal Humanist Studies and the Digital Age, http://journals.oregondigital.org/hsda.

2. "Portable, across reader applications"

This sounds clearly like a technical feature that is not necessarily the concern of a scholar, at least not one with my background. Or, is it? As mentioned above, in my monograph the core argument tries to leverage the specific affordances of the digital format, in its attempt to visualize or, better, "simulate" media or spectacles from the past. This is in a way essential to its persuasiveness as a scholarly contribution: whether a virtual journey inside a painting or the reconstruction of a phantasmagoria spectacle in 3D, the problem of the format, or platform, on which these simulations will be accessible to a reader or user is not secondary at all; for instance, an immersive experience is definitely more effectively "re-produced" on large screens, let alone immersive VR environments, such as the Brown CAVE, than on tablets, or smart phones which can allow only a distant approximation of the original immersive experience (such as 360 videos, for example).

Access and quality of the experience are sometimes inversely correlated, in our digital environment. In other words, portability is definitely a problem an author should be concerned with. Is there a reader application, or a suite of applications, at hand which is viable for the way I intend to build and deliver my visualizations, so crucial for the delivery of my monographic argument? Should we, as a team, be in the business of building or assembling a platform that perfectly fits my subject or argument, and materials, or should we rely upon standard tools and applications that may serve the purpose of other digital monographs as well (from the point of view of a publisher, this may be indeed a primary concern)? And, last but not least, should this be a leading component of our comprehensive effort in designing my "monograph"?

A temporary solution to this series of issues has been the adoption of a platform developed by the Alliance for Networked Visual Cultures, at the University of Southern California, Scalar: "a free, open source authoring and publishing platform that's designed to make it easy for authors to write long-form, born-digital scholarship online, Scalar enables users to assemble media from multiple sources and juxtapose them with their own writing in a variety of ways, with minimal technical expertise required." What made Scalar in particular attractive for us is that Scalar "is a semantic web authoring tool that brings a considered balance between standardization and structural flexibility to all kinds of material."

In addition to "a built-in reading interface," this includes "an API that enables Scalar content to be used to drive custom-designed applications" – an important detail given our intention to develop specific applications for our simulations (see Fig. 4). (Whether Scalar will also be the platform we choose for publishing our monograph is still an open question that we may be able to answer as our customized visualizations progress).⁷

3. "Capable of supporting metrics"

The extent to which this point applies to my monograph clearly depends on a decision I as a scholar will have to make on how to build my argument: in order to be representative casestudies, my "tales" and "simulations" should be by definition examples of a larger set of cultural phenomena. To what extent a quantitative argument would have to be built in order to support my qualitative evidence is an interesting critical question, and in the end one that I will have to answer: particularly since the format of the digital monograph seems to invite me to do precisely this and enrich my critical apparatus with the kind of computerized data and visualizations which can make an argument (my argument?) much more extensive and effective...

⁷ New platforms which promise new functionalities to authors, publishers and readers alike are: Fulcrum, part of the Hydra community (a collaborative, open source effort dating back to 2008, initially a joint development project between Stanford University, the University of Virginia and the University of Hull in close collaboration with Fedora (now Fedora Commons, part of DuraSpace) - https://www.fulcrum.org; The Manifold Scholarship platform, a project at the U. of Minnesota Press in partnership with the GC at CUNY and Cast Iron Coding. (also funded through a grant from the Andrew W. Mellon Foundation) - http://manifold.umn.edu.

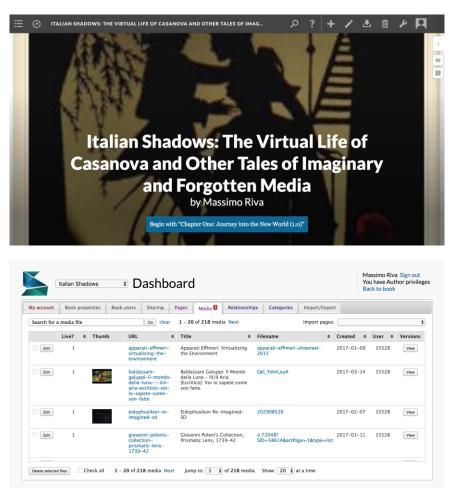


Figure 4. Scalar Book splash and dashboard.

4. "Maintained and preserved in its digital form"

This is what keeps me up at night (and probably keeps up my collaborators). The issue of obsolescence, including the kind of built-in obsolescence that our digital incunabula, as I call them elsewhere, inevitably incorporate, is a serious one for any attempt at innovation - and particularly for our attempt to improve or overhaul a technological and cognitive format (the codex) which after roughly six hundred years of existence has reached a remarkable level of sophistication and stability. Yet, any innovation that a digital monograph may implement on the codex, in particular those relying on reader applications, will have to be tested and preserved as an integral part of the product. Whether tailored for a field-specific genre of scholarly publication or not, these formats will have to be preserved along with the technologies used to produce and/or deliver them: knowing that they will likely become "obsolete" within a few years, replaced by others capable of producing or re-producing, epistemologically speaking, better results in a more efficient way. Books (and even manuscripts and incunabula) have survived for hundreds of years, notwithstanding their vulnerability to time and the environment; will our digital equivalent survive for at least a generation? This may be a factor that a scholar would definitely want to weigh, before deciding whether to go for a digital monograph, particularly if the scholar thinks he or she is making an argument or telling a tale "for the ages." (Of course, a printed copy of his or her "book" could be always be conceived, but it won't have all the features that make of it an innovation on the "codex"). Most importantly, however, the obsolescence factor, or risk, calls into question the fundamental role of the library in the partnership sketched above: if it is in the interest of the scholar that his or her contribution be known and remembered and not vanish from sight, or become inaccessible, and the interest of the university press to guarantee that once sealed by its mark of quality the product be still available to future readers (perhaps also for commercial gain), the library has to make sure that both the scholarly object itself and the technologies that produced it are still accessible and usable by future generations. Preservation has been the traditional role of libraries: in the digital age, this includes also taking charge of our

knowledge infrastructure. Does this mean that university libraries would have to effectively take also a primary role as publishers, as far as scholarly publishing is concerned? Most likely yes; however, how soon and in what way is open to discussion. In practice, all the materials and preparatory drafts, including sketches of the visualizations, minutes of editorial meetings, my own field-notes, etc., not to speak of the databases of images, texts etc., and the prototypes of the simulations, become part of a portfolio in the library digital repository which also provides a complete documentation of our work in progress.

5. "Economically sustainable"

This other kind of sustainability would require an in-depth discussion of the "open access" framework within which a digital monograph should be able to exist and thrive, if it has to be embedded in our increasingly networked environment and take advantage of its open linked resources. Creative commons may provide the framework. I won't go into technical solutions that would be up to academic publishers to propose in order to justify their continuing role and contribution to the partnership facilitated by Mellon. As I mentioned, we have not yet identified a specific academic press as a partner (although we had conversations with several - in their article, Deegan and Armstrong review a number of "digital monographs" already published by various publishers and available to readers). At this stage of the game, I think academic presses still have a crucial role to play, particularly in economic terms. Indeed, neither the individual scholar nor the library are equipped with the experience and sufficiently concerned with the problem of how a society based on intellectual property and economic efficiency (or profit) can cope with the increasing socialization of knowledge work: this particularly applies to humanistic knowledge work which does benefit society, but not in the same way as technological or scientific innovation appear to. Scholarly presses are undoubtedly an integral part of the academic institution - at least in the U.S. If they want to continue to play this role, they have to take this partnership with scholars and libraries and these experiments in innovation seriously and not retreat into a "business as usual" kind of short-term thinking.

6. "High quality as judged by peers"

Academic presses, scholarly societies (such as MLA, etc.) and the scholarly community at large are still the collective custodians of the quality seal in our profession: whether the mechanisms which regulate this will (or must) change, is not within the scope of this article to discuss. As far as the "monograph," whether in print or digital, and the peer-reviewing process remain a vital part of knowledge work and guality-control in the humanities, academic presses will have a role to play, at least in the short run: until we figure alternative ways in which our scholarly community as a whole can take charge of this process. Whether this will bring (academic) publishers to extinction, or will revitalize their role as part of new partnerships and ventures, remains to be seen. From a scholar's point of view, at this moment, I'm hoping that the (symbolic) capital accumulated by prestigious scholarly presses, which have the trust of the scholarly community, and established mechanisms to implement their quality control, as well as to advertise and distribute their products, will continue to be available for, and interested in, my output, whether as a traditional book or as an innovative digital monograph. This may be even more important for an independent scholar, not supported in his or her daily endeavors by an institution, but relying upon the recognition of his or her contribution to the scholarly or artistic community for material or intellectual sustenance. Even though self-publishing may be an attractive strategy, for such a scholar, in a diversified environment in which technical ways of communicating directly with readers abound, it does not provide a viable solution, either economically, or as far as the application of quality standards, etc., is concerned.

7. "Able to support user's annotations"

This point relates to the general considerations made about point 2, above. Yet, it also raises, again, the fundamental issue of the flexibility and "re-usability" of the critical apparatus of primary and secondary sources built-into a digital monograph, perhaps allowing readers and users to develop a different argument from that developed by its author: in other words, the possibility of separating the process from the results of research. Moreover, where extensive annotation capability exists, the problem also arises of whether these annotations should be considered an integral part of the "work" or just an addendum, or an appendix to it. An author

may decide that the annotations by other readers warrant an adjustment or re-formulation of (part of) her own argument: this in turn may lead us to recognize that the contributions of a community of scholars under the shape of annotations may become an essential part of the way a critical argument is developed within the framework of a "modular" digital monograph, thus envisioning and establishing forms of collaborative or socialized authorship within its framework. On the other hand, keeping the annotations separate, and the attribution to the scholars reading or reviewing the work independent, may allow a clearer distribution and recognition of merit, and even the introduction of a reward system based on these forms of cross-editing and cross-reviewing (which may even be reconfigured as a collective or public peer reviewing, by a community rather than anonymous experts). An environment populated by digital monographs could facilitate all of this. For example, a scholar/reader could gain a reputation as a valuable reviewer/ annotator of works written or produced by others, and this in turn may lead to forms of reciprocity and further collaborative writing and reviewing. Annotations themselves, as part of a digital apparatus independent on the core argument developed in a digital monograph could further develop into a self-standing "monographic" exercise, etc.

Conclusions

To sum up, and reach some tentative conclusions: until now, the scholarly long-form has remained perhaps the least developed among our digital incunabula. Why? Perhaps because ebooks have not lived up to their technical and commercial promise; perhaps because the printed book (the codex) is still perceived by humanists as the best format for a monographic, single-author, long form meant to develop and sustain a scholarly argument which requires extensive as well as intensive writing and reading; or perhaps because it is not easy to imagine a sustained, long-form argument in an environment which thrives on rhyzomatic crosscuts, detours and instant communication and dialogue. Yet, going back to what I identified above as the most crucial challenge for me and my team, from an authorial point of view: the most important test we have faced so far (our work is still in progress) is that of reshaping and adapting my argument to the possibilities and affordances provided by a digital apparatus. Relying more upon "illustration" and "simulation" than (verbal) description or conceptualization more on the power of visualization than the cognitive capability of writing - is perhaps the most compelling aspect of this process. My critical writing has to adapt to the whole apparatus of my book, perhaps playing a less decisive role in the presentation, and articulation, of my findings: which relies more upon showing than telling, more upon an assemblage or montage of a variety of re-sources, tools and methods than on linear, consistent reasoning. Does this alter the nature of my argument? Does it make it less "scholarly"? Does it compel a scholar to provide a methodological justification for every move? I cannot answer this question, yet. Others, readers and critics and peer-reviewers, will have to answer it, once my digital monograph has found a definitive, albeit somewhat "open" format-and a publisher.

Bibliography

- Armstrong, Guyda and Marilyn Deegan. "Reflections on the Academic Book of the Future," forthcoming in the e-journal *Humanist Studies and the Digital Age*, http://journals.oregondigital.org/hsda. [A version of this article also appears as Chapter 8 in *The Academic Book of the Future Project: A Report to the AHRC and the British Library, London*, 2017. Available at https://academicbookfuture.files.wordpress.com/2017/06/projectreport_academic-book-of-the-future_deegan2.pdf]
- Darnton, Robert. "The New Age of the Book." *The New York Review of Books* (March 18, 1999). Available at http://www.nybooks.com/articles/1999/03/18/the-new-age-of-the-book/

Johnson, Steven. Wonderland. How Play Made the Modern World. New York: Penguin, 2016.

Waters, Donald. "Monograph Publishing in the Digital Age," https://mellon.org/resources/sharedexperiences-blog/monograph-publishing-digital-age/ (originally published in the July 2016 issue of Against the Grain, http://www.against-the-grain.com/2016/07/v28-3-monographpublishing-in-the-digital-age-a-view-from-the-mellon-foundation/