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Abstract

Background: Scholarly communication has not experienced the kinds of digital enhancements enjoyed by researchers. The continuing domination of journals and monographs as primary venues of professional exchange and validation signifies lingering habits of critical perception, but also an opportunity to imagine and implement new collaborative publishing environments, models, and platforms.

Analysis: Examples of innovative projects bottlenecked by traditional reporting methods illustrate the need for such transformative practices.

Conclusion and implications: Developing flexible digital environments to establish open social scholarship as the default mode of critical inquiry and reporting is essential to the digital transformation of scholarly communication.

Keywords: Open social scholarship; Publishing platforms; Communication; Research; Knowledge dissemination; Tools and practices; Virtual research and learning environments



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INKE (Implementing New Knowledge Environments) is a collaborative research group exploring electronic text, digital humanities, and scholarly communication. The international team involves over 42 researchers, 53 graduate research assistants, 4 staff, 19 postdoctoral fellows, and 30 partners. Email: etcl@uvic.ca .

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Introduction

Humanities scholarly research methods of twenty years ago bear little resemblance to the ways and means enabled by the networked digital platforms, tools, and repositories that are available to today's academics. Statistical data analysis tools, visualization software, electronic concordances, distant reading interfaces, geographic information system (GIS) applications, indexed federations of databases that host millions of primary and secondary scholarly sources, and even the World Wide Web itself are just a few examples of digital opportunities that researchers can use to search, sort, filter, connect, and compare objects relating to humanities cultural history. The opportunities provided by such research tools and methods, however, are still undergoing experimentation and transformation. Mitchell Whitelaw (2015) has recently pointed out the limitations of many current search interfaces, instead encouraging alternative models of rich, browsable, and "generous" interfaces. Such developmental energies signify imaginative possibility and creative momentum.

In contrast, though, scholarly communication has not experienced a similar expansion and innovation to parallel the opportunities currently enabled for the digital researcher. If this appears to be an exaggerated claim, stop and ask yourself: "What are the main ways that I shared my research results with others in my knowledge community over this past year?" Academic conferences, journal articles, and monographs are still the most prevalent portals for scholarly communication and also bear the most weight in hiring, tenure, and promotional considerations. Their persistence is more than the product of habit. These options also retain their value because of the rigorous processes of peer review and traditions of editorial diligence that have been well established and (somewhat) consistently employed. Such venues are trustworthy and have migrated to digital distribution frames relatively intact. While some have employed unique methods of production through a few new augmentations – rolling publication schedules (as practiced by journals such as *Digital Studies / Le champ numérique*), journal incubator projects (O'Donnell, Hobma, Cowan, Ayers, Bay, Swanepoel, Merkle, Devine, Dering, & Genee, 2015), attaching mixed and multiple media to digital publications (the *Journal of Digital and Media Literacy*), appended chapter responses (Harrigan & Wardrip-Fruin, 2006) – the emperor's new digital clothes do little more in these instances than reveal the awkward persistence of traditional systems for instituting authorship and authority. While some of you may have tweeted, blogged, facebooked, instagrammed, and researchgated your research, more often than not these social media tools are used as simple signposts to redirect your followers to documents that have been published in more traditional ways. While it is important for established and upcoming scholars to sustain a social media presence, it would be surprising if any institution currently offers merit pay to faculty members for twitter posts.

While the means of scholarly communication have not diversified as rapidly as research methods following the digital turn, essential progress has been made in the promotion of open, online access practices and committed, collective efforts to strengthen Canada's digital research infrastructures and data management strategies. Foundational groundwork is being laid for the emergence of a creative reimagining of collaborative critical conversations. Organizations such as the Canadian Association of Research Libraries (CARL), the Canadian Research Knowledge Network (CRKN),

Érudit, the Federation of Humanities and Social Sciences, the Leadership Council for Digital Infrastructure (LCDI), the Public Knowledge Project (PKP), Research Data Canada (RDC), and the Tri-Council have affirmed their commitment to open access (OA) practices, scholarly communication, digital publishing, and the development of platforms and portals through various documents and statements.

In the midst of such a broad national commitment to foundational innovation, the continuing domination of journal and monograph publications as primary venues of scholarly exchange, peer review, and professional validation signifies lingering habits of critical perception and valuation. This is not, however, an endgame. It is an opportunity to collectively imagine and implement new collaborative knowledge environments, publishing models, and critical platforms that take full advantage of existing and emerging digital frames of communication and representation.

To encourage this move forward, it is useful to take a look backward, to remember what we have possibly forgotten. Classical Greek thinkers' modelling of human activity was comprehensive and flexible enough to anticipate and include innovations in research and communication. While this model has been both complicated and simplified (and likely deformed) through various interpretative efforts by Martin Heidegger (1962, 1987), Giorgio Agamben (1999), Hannah Arendt (1958), and others, focusing on three terms will help to contextualize the so-far neglected opportunities for scholarly communication that can emerge from our recent digital turn: *theoria* (or contemplation), *poiesis* (or making), and *praxis* (or practice/action). Each of these activities is a valuable process on its own, but collectively they can be mapped in illuminating ways.

An intuitive manner of relating these three ideas is to see *poiesis* (making) as a threshold between contemplation and action, as an initial materialization of contemplative knowledge that leads to *praxis*, or engaged activity. Hannah Arendt (1958) and Paulo Friere (1970) have argued for the political power of *praxis* (which is subdivided into ethics, economics, and politics), elevating it over contemplation and perceiving it as a transformational practice, which closely relates it to the abovementioned threshold function of *poiesis*. It is no wonder, then, that constructivist maker movements have combined *poiesis* and *praxis*, equating making with transformative action (See Matt Ratto's 2011 article "Critical Making: Conceptual and Material Studies in Technology and Social Life" for additional context). This association is also true for many digital humanities (DH) tool projects, the development of which have become cornerstones in the production of new understandings and critical perceptions. As an example, Franco Moretti's (2007, 2013) quantitative graphing work with *Hamlet* has led to the transformative and influential idea of "distant reading" communicated through his *Graphs, Maps and Trees* monograph and through his later collection of essays, *Distant Reading*. We can weave these associations even more closely together, though, by calling attention to Alan Galey and Stan Ruecker's (2010) paper "How a Prototype Argues" and Lev Manovich's assertion (as reported by Stan Ruecker (2008) in a *Humanist* listserv post) that "a prototype is a theory." If a constructed *poietical* prototype (which embodies process and product) is an argument and a theory/*theoria* as per the above claims, *and* an instance of transformative

(political, economical, and ethical) action/*praxis* as suggested through the philosophy of the maker movement, then the computational turn that David Berry (2011) claims “is changing the nature of knowledge in the university” (p.14) is creating opportunities in which *theoria*, *poiesis*, and *praxis* can be unified in creative and argumentative processes of contemplative construction.

How do we relate this synergy to the stunted development of scholarly communication in the humanities? Currently, we do not; at least not very well. The opportunity to bring the powerful unity of *theoria*, *poiesis*, and *praxis* via digital technologies to humanities scholarly interactions is not currently being explored through existing opportunities for scholarly communication, which appear to value product over process, and value quantifiable publications over the actions that make such publications possible. In short, scholarly communication is limited by materialist economies and attitudes.

The models of limitation, materiality, and disengagement that we continue to preserve and replicate were satirized by Jonathan Swift (2005) nearly 300 years ago. In book three of *Gulliver's Travels*, Gulliver comes across an academy full of harmless and useless professors. These professors, after spending a short time on the floating island of Laputa (an environment full of people who “are so taken up with intense Speculations, that they neither can speak nor attend to the Discourses of others” (p. 146) without being prodded into action), establish a grand academy in the metropolis of Lagado. Here, the professors engage in ridiculous research and inconsequential projects that have limited audiences and applications. While Swift's specific satire targets the Royal Society in London, the University of Leiden, and the Dublin Philosophical Society in particular, its portrait of disengaged and siloed researchers who communicate obscure projects via incomplete papers of instructions (p. 178) offers a more general criticism of academic work and communication that remains relevant today. Swift's academics only practice *theoria* and *poiesis*, not *praxis*, operating at a significant disconnection from any practical, useful, or applicable action in the world. While Swift's satire offers a hyperbolic and fictional account of disconnected professors, an academy of inward-looking academics inspired by a floating island associated with eccentricity, entitlement, and speculative thinking is not an unrecognizable portrait. His critique of their inaction and limited engagement with the world just outside the doors of the academy is a centuries-old reminder to avoid absurd and insular practices and to engage with publics at all stages of academic research and communication.

Overall, this concern regarding the limitations of innovative practice and transformation in humanities scholarly communications echoes John Maxwell's paper from the 2015 INKE Whistler conference, which calls for broader, more agile, open, and creative scholarly publication. Maxwell (2015) recognizes that “education, publishing and scholarship are all cultures of transformation.” Relating this to the current frame of reference, the digital unification of *theoria*, *poiesis*, and *praxis*, understood as a transformative method, would mean that education, publishing, and scholarship are all forms of action, and are primarily related to dynamic, adaptive, and engaging processes rather than production. If scholarly publishing and communication can be correlated with pedagogical means, publications could function in the same way as classrooms. And if the primary goal of classroom experience, instead of delivering

lectured monologues, is to facilitate open social scholarship through conversation, to promote and provoke discussion and exploration, this would necessitate a radical, but not unfamiliar reimagining of the means, modes, and ends of scholarly communication. This would not be an exclusive shift, but rather an expansive diversification that complements existing models while embracing new paradigms.

A few examples of innovative student-led research projects demonstrate the necessity of such a shift and represent the next generation of digitally enabled inquiry. These projects demonstrate some exciting and unconventional combinations of *theoria*, *poiesis*, and *praxis* in scholarly communication that are being enabled by the computer. Collectively, they signify a growing sentiment in upcoming scholars that favours creative, prototypical experimentation and the foregrounding of process in scholarly communications.

Some recent graduate students in Acadia University's English and Theatre Department have taken advantage of an opportunity to generate final projects that are not traditional papers. For the past few years, an assignment option has been offered in specific graduate classes that is inspired by Jerome McGann's (2001) provocation in *Radiant Textuality* that, "We no longer have to use books to study other books or texts" (p. 168), which recognizes and affirms that traditional forms of critical argumentation are not necessarily the only tools for scholarly communication. In the "Cross-Platform Narrativity: New Media Transformations of Literary Traditions" course, students had the option to create a rhetorical, performative, in-depth argument that lucidly, self-consciously, and conclusively interrogates the forms and functions that narrative can follow or be disrupted by in new media environments. This option required the creation of an interactive, argumentative, digital environment, and the submission of a five to seven-page supplement of design notes that described and justified the project in relation to class readings. Ian Brunton (2008) submitted a brilliant interactive website that subjects historical and cultural variations of the "This, too, shall pass" story to various types of dynamic digital transformations, deformations, and defamiliarizations.

Brunton's site presents the reader with a world map on which several locations are marked with golden rings. Resting the mouse over each ring raises a "tool-tip" that indicates the location's level of difficulty, one through five. Clicking on a ring brings up a page of *lorem ipsum* text. Without any input from the reader, the text is replaced, one word at a time, by English text, revealing a story variant. The text replacement occurs in a different order depending on the "level" assigned to each location: forward, backward, or randomly; cumulatively (words are revealed and remain visible) or transiently (each word is revealed only briefly before being replaced again by the *lorem ipsum* text). Brunton's argument, as well as the way that this experience emerges "could not have been created on paper beyond the composition of its story texts, and it could not be read without the capacity of the computer to transform the text dynamically." The reader's journey through this site is frustratingly and disorientingly determined by programmed parameters that variously defy the speed and strategies usually employed when we read and construct meaning using printed text, calling attention to reading behaviours that we habitually engage in. Brunton's project exposes our conventional

reading habits, demonstrates plural opportunities for computer-based deformations, and performatively explores the relationship between textuality and meaning. Playing with the authority and stability of the printed word, Brunton argues that “There [are] no text[s], only a computer’s dynamic construction of them” and that this form of narrative process is limited, but also rendered more powerful by our expectations regarding the way that pages and printed words establish and communicate meaning. The “This, too, shall pass” project utilizes form and content in the making, contemplation, and practice of its ideas, leaving us with a rhetorically powerful experience of Brunton’s arguments, rather than offering a prefabricated linguistic translation of those points.

Alix Shield (2015), a PhD student at Simon Fraser University, has produced a Wordpress site called “Recovering Voices: Revisiting E. Pauline Johnson’s and Chief Capilano’s Legends of Vancouver” as part of a larger “Legends of Vancouver” project relating to the work of E. Pauline Johnson. It is a well-designed and full-featured portal into Johnson’s life and work, and showcases the range of digital “treatments” that can be brought to bear on cultural histories, as well as showing the possible uses/intersections between DH and Indigenous literature. This website establishes an effective narration of Shield’s discovery process and makes full use of digital means to illustrate, augment, and reinforce her discoveries. She uses a diversity of digital tools (including Voyant’s toolbox, Juxta Commons, CollateX, and the ArcGIS Story Map Journal tool) to explore and illuminate patterns in her primary texts. By directing the results of these computing processes to specific questions and observations, she discovers meaningful details and larger understandings relating to the literary material that she’s viewed through such lenses. What finally emerges through Shield’s *theoria*, *poiesis*, and *praxis* is a metacritical, multifaceted representation of Johnson’s work and its geographical and cultural contexts via multiple digital methods. One notable aspect of this lucid engagement is the level of cultural sensitivity that Shield brings to the study through her exploratory use of Traditional Knowledge (TK) labels, developed by Local Contexts. This educational and ethical use of the TK labelling system attributes Indigenous ownership to public domain sources and/or digitally distributed work. However, Shield acknowledged in an email message that, problematically, “I haven’t selected them in consultation with members of the Coast Salish/Mohawk communities. So, in an ideal instance, the labels would reflect lengthy conversations with the people whose knowledge is being represented.”

Refreshingly, then, Shield (2015) does not employ DH tools in a transparent way. She discusses the limitations of her digital research methods, allowing for a feedback loop of illumination: Johnson’s work is revealed by the tools as it reveals the affordances and constraints of each tool employed. Overall, this example demonstrates a diverse and robust use of digital research methods to produce meaningful and provocative reconsiderations of historical cultural documents. Shield has found a way to employ DH processing tools toward meaningful critical illuminations, while balancing the intimacies of immersing oneself into another’s stories in a manner that keeps the industrializing undertones of much DH work at bay. Importantly, Shield has harnessed these tools not only during her research processes, but also to help in communicating her results. In addition to passively reporting on the way that such tools were used during her research

process, she also provides active links that allow users of her site to explore her primary texts through the same tools that she uses. Overall, then, this example demonstrates a way of engaging and including one's audience in the processes of analysis within and through scholarly communications documents. Unlike a simple show and tell session, Shield has constructed ways of involving her knowledge community in a partly performative encounter with Johnson's texts and her critical project.

However, while Shield's scholarly communications methods are unique, like Brunton's "This, Too, Shall Pass" site, they are also isolated and insular. The flexibility and affordances related to her Wordpress site help to create a portal for visiting, but Shield has not been able to create a platform for building on. As Tim Sherratt (2013) points out, portals are "web gateways or starting points" for relatively constrained exploration paths – sites that are meant "for visiting" – whereas a platform is an "open, creative space full of possibilities" that configures data for flexible exportation and re-use, "put[s] design decisions back into the hands of users," and encourages open data processes for online, collaborative play. In an email communication, Shield expressed her awareness of this limitation: "I've really felt stuck, especially working with Indigenous traditional knowledge, to find or create a balance between a traditional digital repository and something more collaborative and community-based." She's referring not only to ways of engaging Indigenous communities in the process of research, analysis, and the creation of scholarly communication portals that feature aspects of their cultural history, but also to more fundamental limits of the means of engaging audiences and communities with her work in a collaborative and integrative way. "Recovering Voices" is an honest and complex statement, a provocative product of scholarship, but beyond a "comments" section common to the blogging software it utilizes, the project does little to involve its users in a public process of discussion and conversation. How do we (scholars as well as non-academic and Indigenous publics) become more than tourists in Shield's interactive museum? As a postscript and possible answer, the larger project that this site is based on has been recently accepted as an official project with the Canadian Writing Research Collaboratory (CWRC). While the CWRC is rapidly becoming a hub for many DH projects and has the potential to serve as a common, centralized location for Canadian DH scholarly work, such as Shield's site, the CWRC in these early stages of development resembles a multifaceted but traditional museum space (a portal rather than a platform). However, its vision of the ways that tools will eventually be integrated with its database is encouraging:

[The CWRC will feature a] toolkit for empowering new collaborative modes of scholarly writing online; editing, annotating, and analyzing materials in and beyond ORCA; discovering and collaborating with researchers with intersecting interests; mining knowledge about relations, events and trends, through automated methods and interactive visualizations; and analyzing the system's usage patterns to discover areas for further investigation. Forms of collaboration will range from the sharing and building of fundamental resources such as filmographies, and author and subject bibliographies, to the collaborative production of born-digital historical and literary studies. (CWRC, 2012)

This vision statement is a promising acknowledgement of the necessity of innovatively combining *theoria*, *poiesis*, and *praxis* in our digital means of scholarly communication.

Another project bottlenecked by traditional reporting methods that would benefit from more public-facing and community-based platforms is by Davita DesRoches, and involves an attempt to challenge limited and limiting critical perspectives relating to Charlotte Smith's *Elegiac Sonnets* (1993). Smith was a Romantic period writer, and her *Elegiac Sonnets* collection in its final iteration included 92 sonnets. The initial problem motivating DesRoches' research was dissatisfaction with the ways in which Smith scholars tend to reductively illuminate small samples of her work through a biographical critical lens. As a result, Smith's poems are habitually characterized as the melancholy musings of a woman writer who experienced a number of emotionally challenging personal crises. DesRoches' experience with Smith's work suggested otherwise, and she is employing a unique and unconventional method to overcome what she perceives as unfair critical gender profiling.

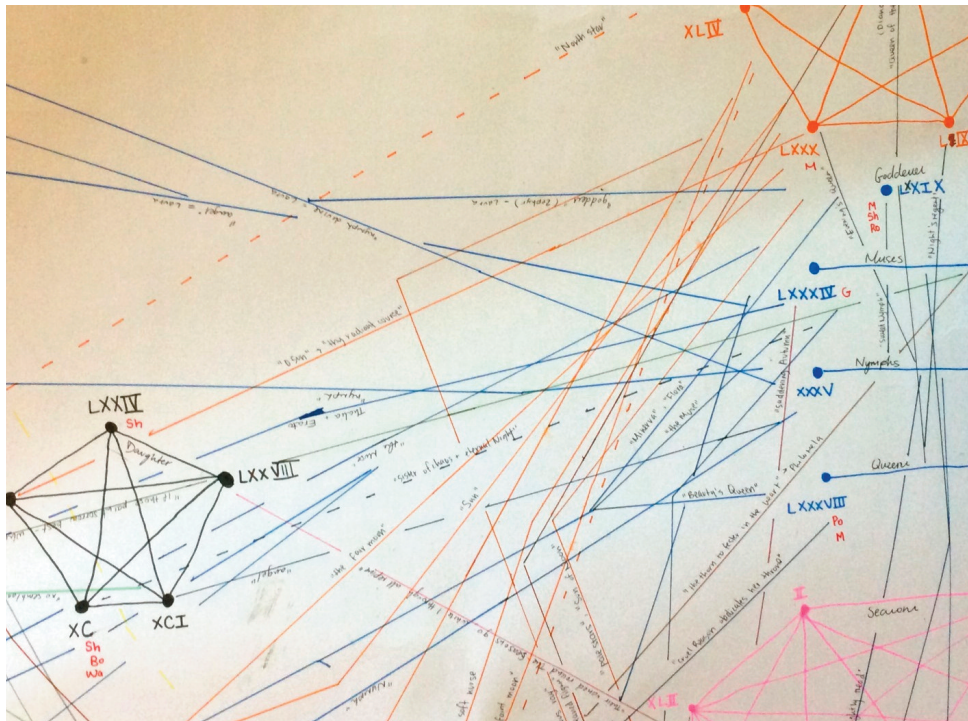
DesRoches (a double Math and English honours student who is simultaneously completing thesis projects in both subjects) initiated this project in the summer of 2015 and produced the following hand-drawn graph (see Figure 1):

Figure 1: DesRoches hand-drawn graph



After close reading all 92 *Elegiac Sonnets* and filling a handwritten notebook with observations, correlations, and keyword tags, DesRoches used her knowledge of graph theory to map thematic, situational, and formal associations between all of the sonnets in Smith's collection. The hand-drawn graph as seen in Figure 1 was the result. A closer view of her efforts (see Figure 2) not only reveals the complexity of DesRoches' engagement with Smith's work, but also graphically demonstrates the shortcomings of most traditional scholarly work that has been produced to date regarding Smith's sonnets:

Figure 2: DesRoches hand-drawn graph (detail)



In fact, this single graph includes and radically exceeds the entire corpus of critical work on Smith's sonnets to date. More incredibly, the graph's clusters easily reveal a dozen potential graduate thesis topics and both its method and findings raise some unique possibilities for Smith studies (and Romantic period studies as well).

DesRoches' project involves distant reading processes and processing, akin to the ways that Moretti (2007), from a close reading of Hamlet, graphs larger network superstructures that are not immediately perceived at the scale of close reading. This is an ideal application of distant reading methods that is often overlooked due to the power of computers. Lev Manovich's project "One million manga pages" (2012) ignores the prerequisite of close reading, satisfied with simply visualizing an incredible quantity of manga pages without ever necessitating a particular critical engagement with or traditional reading of any one of them. DesRoches' project reminds us of the necessity of understanding our source material through multiple scales, of maintaining an intimacy with our source material even as we necessarily engage with larger contextual and comparative scales.

While this is exciting stuff on a number of different levels, the difficulty of communicating the implications of DesRoches' work within a traditional thesis frame is frustrating. Flattening the complex associative energies of this work into an academic prose argument without engaging in a radical amputation of perception and understanding is presenting significant challenges, simply because the complexity and non-linearity of some of the graphed connections are better represented visually.

Recognizing the communicative limits and relative fragility of her pen-and-paper graph, DesRoches recreated a static representation of her hand-drawn graph in the open source Visual Understanding Environment (VUE) mind-mapping software. Unfortunately, it is not easy to export this effort for use in other software programs, and its appearance of finality betrays the inherent desire for dynamism that has generated and sustained the project. Ideally, it would be useful to resituate this graph in a dynamic digital environment where users could visually explore the extent and limits of existing connections and classifications, as well as add additional illuminations and engage in discussion and debate on the site.

DesRoches' project is quite unlike those of Shield or Brunton in both subject matter and methodological approach. However, what they all share is a willingness to confront the complexity and interdisciplinarity of their research questions and primary source texts in unconventional, multimedia, and multimodal ways. These researchers are also practicing a unification of *theoria*, *poiesis*, and *praxis* in their research: Brunton creates a user experience to express his thoughts regarding the ways that computers reshape reading and meaning. Shield's contemplations are fed by the creation of her website and her use of digital tools to render her source texts in different ways. This activity sheds a critical light on the nature of the tools themselves as well as the transformative nature of their coordinated use. DesRoches' close readings of 92 sonnets led to the creation of an illuminating graph that promises to transform critical approaches to Charlotte Smith's work. All of these unique projects feature next-generation scholars who are making use of existing and foundational DH methods, tools, and archives for their research. Their experimental efforts to communicate these ideas to knowledge communities in engaging ways, however, highlights the limitations and increasing inadequacy of traditional forms of scholarly communication, and the benefits that would arise from more and better scholarly communication platforms. These examples initiate significant processes that necessitate a more effective form of community engagement than the production of a few printed articles or a monograph.

Ideally, written scholarship should augment and also rise out of a rich platform of opportunity. While Shield is on a possible path to facilitate such opportunity through a relationship with the CWRC, the potential of DesRoches' work to inspire conversations and critical transformations on many levels will fade after she produces bound copies of her thesis that will not be able to contain or fully represent her methods or results and will be quietly archived. As well, the experience that Brunton has created is a useful destination that leaves no on-site opportunity for users to discuss or debate such efforts.

What would be the best way to communicate these projects in ways that encourage an open, social scholarly conversation and that inspire a broad community to engage in

contemplation, making, and transformative action? Do more public facing and community-based platforms that unify *theoria*, *poiesis*, and *praxis* already exist? Can existing social media tools be leveraged in the same way as Wikipedia? Can research knowledge and communication be democratized through platforms, through shared and open standards?

There is no shortage of existing social media sites that engage broad communities of users in debate and discussion. Most of these are commercially motivated and tend to prioritize a social layer of engagement, and their communication interfaces promote brevity and simplicity (though some people are using them for the alternative purposes of scholarly exchange and the formation of strong alternative communities on a global scale). While certain affordances of each would be useful to employ in alternative platforms that are catered toward (and designed to democratize) scholarly communication, the environment constituted by existing social media platforms is already plural and scattered, resulting in the constitution of many splintered but also overlapping communities. Is this a good kind of diversity? Do we need this kind of plenitude and interoperability in open social scholarly communication platforms? Do we also need to more creatively link future platforms to existing social media outlets in ways that promote and engage a broader public? We certainly need an opportunity for multiple networked initiatives to emerge from common venues of conversation and planning.

In an attempt to explore the potential of such platforms, we have developed a prototype called NewRadial (2015). NewRadial is a web-based digital environment for networked open social humanities scholarship that encourages users to occupy, search, sort, annotate, and share database objects in a visual field. Unlike analytic platforms, which offer tools for counting, sorting, tallying, and otherwise data mining a corpus, it has been designed to function as a workspace in which primary objects from existing databases can be browsed, gathered, correlated, augmented, saved, and shared by multiple users in a dynamic visual environment. Due to this focus on community and communication, scholars can access, read, and respond to the work of others in a common, networked space and engage in scholarly conversation while dynamically altering the arrangement and augmenting the relationships of their source texts. Installed on a server and accessible via web browsers using HTML5 canvas elements to ensure broad device compatibility, the current prototype makes use of javascript adapters to query, mix, and display content from locally hosted databases or remote databases that have a public API.

Uniquely, the use of javascript adapters generates interoperability between the content of different (and often incompatible) databases as collected results of multiple searches from different sources can be displayed and sorted on the same screen via meta-adapters instead of relying on metadata standardization. In addition to enabling specific types of scholarly research in relation to large data sets, NewRadial (2015) offers a space in which secondary scholarship, exchange, and debate can be centralized and mapped onto the primary data without deforming or destabilizing the original databases. The NewRadial prototype is being used to model different types of social aggregation and dynamic organization within centralized workspaces in an effort to

counter reductive, isolated forms of monographic narrativization and the scattered dialogues that often result from print-based distribution models. The goal of establishing open social scholarship as a default mode of critical inquiry *and* reporting is an essential capstone in the digital transformation of scholarly research and communication practices.

The NewRadial prototype was inspired by innovative experiments in online communication such as Google Docs, collaborative mind-mapping sites such as Mindmeister and Mind42, which encourage various levels of collaborative co-construction, opening in-progress documents to feedback and collaboration rather than presenting static and polished products. This is similar to the way that McKenzie Wark's (2006) *Gamer Theory* book at the *Institute for the Future of the Book* website welcomed and hosted public feedback, debate, and conversation on each paragraph of the book during its development. After the print version was published, a new set of forums was opened to encourage persistent commentary, reflection, and discussion. This project served as a foundational model for the 2007 development of the MediaCommons initiative, which hosts larger projects and smaller initiatives, and is described as "a community network for scholars, students, and practitioners in media studies, promoting exploration of new forms of publishing within the field" (MediaCommons, 2007). The 2013 launch of the MLA Commons initiative extended these platform activities of collaboration and exchange to literary scholarly communities throughout the process of scholarship. Taking a somewhat different approach, DH Commons (DHCommons Journal, 2016) is another promising attempt to apply traditional expectations and traditional scholarly economies to new forms of DH scholarly production: its website is a repository for DH projects looking for collaborators, and its journal combines project statements with peer reviews for projects. Equally promising to the fusion of *theoria*, *poesis*, and *praxis* in scholarly research and communication are the pending ITER Community (2014) portal, which promises to "to facilitate and support communication, collaboration, and digital project creation for research communities of the Middle Ages and Renaissance" and the abovementioned Canadian Writing Research Collaboratory (CWRC).

While it is easy to become excited by the seemingly inevitable potential inherent in current digital infrastructure, unconventional project development, and early open social scholarship prototypes, it is useful to check such enthusiasm by reflecting on the current state of a decade-old platform that is finding itself at a unique crossroads. Networked Infrastructure for Nineteenth-Century Electronic Scholarship (NINES) is an initiative conceived by Jerome McGann in 2005. NINES' (2005) mission (as defined on its webpage) is:

- To create a robust framework to support the authority of digital scholarship and its relevance in tenure and other scholarly assessment procedures;
- To encourage a real, practical publishing alternative to the paper-based academic publishing system, which is in an accelerating state of crisis;
- To address in a coordinated and practical way the question of how to sustain scholarly and educational projects that have been built in digital forms; and

- To establish a base for promoting new modes of criticism and scholarship promised by digital tools.

It has successfully achieved these objectives by aggregating almost 900,000 peer-reviewed digital objects from 138 federated sites, offering a suite of innovative tools (Collex, Juxta, and Ivanhoe) to its community, and allowing its community of users to curate peer-reviewed scholarly exhibits composed from the database objects that NINES federates. The NINES model has inspired the development of similar initiatives in other disciplinary areas (MESA, 18thConnect, ModNets), which are all now federated under the Advanced Research Consortium (ARC). However, NINES is most often used as a portal, not a platform, and the peer-reviewed, exhibition-based focus of its mission means that it functions as a continuation of traditional knowledge economies rather than as a public-facing commons that collaboratively engages broader communities of interest in the co-creation of scholarly initiatives, ideas, and activities. It is also constructed to appeal to a particular knowledge community and has found, as funding becomes less available and developmental infrastructure is shifted to ARC, that its function is limited and its growth has waned.

What NINES' stalled development has revealed is that we are in the early stages of a fundamental paradigm shift from the focal points of digital archive creation and the development of digital tools for research and scholarship to more inventive, inclusive, and public-facing platforms that blur the lines between scholarly research and communication, between researchers and readers. To put it succinctly, we need to consider scholarly communication *as* open social scholarship. In the same way that digital environments are spaces in which traditionally distinct activities of *theoria*, *poiesis*, and *praxis* are often unified, the distinction between scholarly research and communication needs to be collapsed into practices and platforms such as *NewRadial*, which enable and envision new opportunities for networked open social scholarship. The goal of establishing open social scholarship as a default mode of critical inquiry *and* reporting is an essential capstone in the digital transformation of scholarly research and communication practices.

INKE's Modelling and Prototyping team, drawing from critical making, open access, and social-knowledge creation methods, is currently working with partners to develop flexible prototype environments and platforms that combine networked and narrative thinking, synthetic and analytic processes, and mapping and routing strategies. We are working to design experiences that encourage knowledge communities to replace oppositional, competitive, closed, and exclusive models of scholarly communication with collaborative, open, dynamic critical dialogue that takes full advantage of digital opportunities. Such environments will help to model ways in which we can imagine and implement the transformation of scholarly economies to encourage and sustain such beneficial practices.

Website

Visual Understanding Environment (VUE), <http://vue.tufts.edu/index.cfm>

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