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Introduction, New Knowledge Models: Sustaining Partnerships to Transform Scholarly Production

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On January 19 and 20, 2016, researchers, students, librarians, and other participants came together for the third annual Implementing New Knowledge Environments (INKE) hosted gathering in Whistler, BC, Canada, "New Knowledge Models: Sustaining Partnerships to Transform Scholarly Production." Thematically, discussions revolved around the many facets of digital scholarship: creativity, implementation, institutional interface, opportunities, challenges, audience, initiatives, sustainability, and more. Dr. Sally Wyatt of the Royal Netherlands Academy of Arts and Sciences (KNAW) and Maastricht University presented an opening keynote on "Understanding the Computational Turn in the Humanities: Lessons from Science & Technology Studies." Charting connections between science and technology studies and digital humanities, Wyatt invited participants to envision how technology could be otherwise; that is, that technological development to date could have gone in many different ways. In turn, Wyatt explored knowledge-based economies and the role of digital technology in drawing attention to the importance of information and knowledge for charting contemporary economic and social patterns.

Digital technology has permeated contemporary scholarly practice. Researchers and students often search for articles online, employ a bibliographic citation manager to organize their research, write on a desktop program, share drafts over email, publish in blogs and online journals, interact with colleagues over social media, and list their academic accomplishments on personal or community websites. Networked

Source: Moreh, 2015

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scholarship has led to greater efficiency and more public engagement, but challenges and frictions also arise. Despite early efforts by groups to legitimize digital scholarship, such as the Modern Language Association (MLA) in its "Statement on Electronic Publishing" (originally developed in 2003; revised in 2014), some corners of academia still consider the digital publication of academic work as inferior to traditional, printed and bound journals and monographs. Concerns about status, reputation, and credit, coupled with a powerful corporate publishing system, inhibit the broad uptake and flourishing of open, social scholarship. In Whistler, participants looked past these roadblocks to embracing technological change for a more accessible and efficient digital future for scholarly communication.

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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 .

Technological change and shifts in the practice of knowledge production are not new concepts. In *Print, Manuscript and the Search for Order, 1450–1830*, David McKitterick (2005) wrote: "each new technology does not replace the previous one. Rather, it augments it, and offers alternatives" (p. 20). At "New Knowledge Models," participants grappled with this technological evolution and the alternatives it offers for scholarship. They considered what digital scholarship could and should look like and discussed how to create systems and methods that take advantage of technology's opportunities, while maintaining intellectual rigour and historical and contextual significance.

Many of the 15 articles in this collection cluster under the theme of open social scholarship. **Jon Saklofske** considers ways that theory, making, and praxis might be unified in order to imagine and implement new collaborative environments and publishing models. **Matthew Wizinsky** and **Jennifer Brier** outline the History Moves project as a way to involve community members in the creation and distribution of oral history projects. With perhaps a controversial stance, **Rowland Lorimer** explores the worlds of commercial and open access and not-for-profit publishing to determine which might best serve academic interests. He concludes that not-for-profit publishers might focus on market competitiveness rather than solely on open access as a way to benefit research audiences. Finally, **Lynne Siemens** continues her research on INKE as a collaboration, finding that year six is still a positive experience for researchers, with some of the usual challenges. The intensity of the collaboration is now winding down as the project comes to completion.

As scholarly inquiry continues to migrate into digital environments, research findings emerge through changes in the forms and features of scholarly output; such digital forms also correspond with changes in the way such scholarship is produced and shared, constituting form and function as a mixed zone of programmatic scholarly thought. **Susan Brown**, **Linda Cameron**, **Anita Cutic**, **Mihaela Ilovan, Olga Ivanova**, **Ruth Knechtel**, **Andrew MacDonald**, **Brent Nelson**, **Stan Ruecker**, **Stéfan Sinclair**, and members of the **INKE Research Group** unfold the manuscript in a state of hybridity, as legacy aspects of print books persist alongside emerging digital features. Using the Dynamic Table of Contexts reading interface as their primary case study, Brown and co-authors identify and explain the hybridity of form (appearance and features) and the hybridity of roles (production process) as two pillars of the book in transition. **John Bonnett**, **Mark Anderson**, **Wei Tan**, **Brian Farrimond**, and **Léon Robichaud** introduce StructureMorph, a software environment that allows historians

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to produce expressive 3D models of buildings, or Complex Objects, that express changing data associated with an object (temporal, interpretive, and expressive) through the visual features of the object itself. Writing across interpretive theory and computational practice, **Bonnett** et al. share three-dimensional visions of humanist thought at the convergence of digital history and geographic information systems (GIS). **Alex Christie** unearths the importance of diversity in designing and refining digital knowledge platforms, sharing advances in the z-axis and Pedagogy Toolkit projects as case studies of such work. Advocating for the necessity of a diverse range of voices to chart gaps in current conceptual frameworks and workflows, Christie shares practical steps for cyberinfrastructure building that are guided by diversity as an encompassing mode of thought. **Colette Colligan,** with **Michael Joyce,** details the Wilde Trials International News Project, a program developed with the Simon Fraser University library to track the use of text-sharing in disseminating the news of Oscar Wilde's sex trials in French and English. Detailing the development of the program from inception to production, Colligan and Joyce examine text-sharing from both an algorithmic and a historical perspective, reporting discoveries about the role of censorship in French and English news circulation revealed by the program.

New models for knowledge production blend more traditional forms of scholarly inquiry with digital modes and methods. **Constance Crompton** and **Cole Mash** use contemporary database, graph, and visualization tools in their work with the Devonshire Manuscript, a sixteenth-century verse miscellany. Using these tools, the authors examine the manuscript's content, paleographic style, annotations, musicality, and relationship between poems, which allows them to develop evidence-based conclusions about the gender of unnamed contributors. In a similar trend of applying new models to older forms, **John Barber** considers how radio dramas could be a participatory knowledge environment, due to the medium's ability to communicate complex narratives to an engaged audience. **Richard Lane** suggests that digital humanities research should look to more community-based practices of open source software development. If done with consideration, these practices could balance the demands of global, networked infrastructure development with the needs of learning and research communities.

Cultural institutions are rethinking how best to serve their constituents and the public at large, in response to emerging trends and challenges associated with digital scholarship. In her piece, **Lisa Goddard** explores the use of Digital Assessment Systems to build rich digital collections that facilitate the research process for researchers and libraries alike. **Kimberly Silk** considers the role of the Canadian Research Knowledge Network (CRKN), working with its partners, in the creation of an integrated digital scholarship ecosystem within Canada. **Rebecca Dowson** continues the discussion of the position of libraries in digital scholarship environments by exploring how the Research Commons functions within the academic library. She explores the organizational structure of the Research Commons, which is designed to encourage interdisciplinary collaboration while providing support services to scholars throughout the research lifecycle. For **Kimon Keramidas**, research projects should apply a sense of design acuity that focuses purposefully on interactions across different media platforms. In this way, accessible knowledge production would integrate with intellectual rigour, and thus respond to the prevalent defamiliarization of academic work from public discourse.

In the thematic spirit of this volume, we undertook a collaborative peer review process. In a sense, peer review has always been collaborative. Subject area experts dedicate a great deal of their time, often with little acknowledgement, to improve the quality of submissions, assess research for relevance, or determine the veracity of their findings. Anonymity has long been used as a means of ensuring the objectivity of reviewers. The gold standard of such evaluation in the humanities, the so-called double blind peer review, supposes to absolve any bias gained by knowing the identity of either the reviewer or the author. While the means of peer review have evolved over time, the goal has always been to strive for an ideal of scholarly rigour, while also achieving a sense of social legitimacy for those knowledge stakeholders involved in accessing or producing research.

The resulting process for this issue of *Scholarly and Research Communication* (*SRC*) has been a hybrid approach that blends single blind and open forms of peer review alongside online and in-person communication strategies. We employed this method successfully in 2015 for a volume of proceedings from INKE gatherings in Sydney, Australia, and Whistler, BC (Arbuckle, Mauro, & Siemens, 2015a, 2015b, 2015c), and it seemed fitting to repeat this process with the current proceedings. We organized 13 reviewers by pairing undergraduate students, graduate students, and postdoctoral fellows with senior faculty to distribute expertise and experience evenly across the group. All members of the reviewing team read their assigned papers in advance and met for a single collective review session we called a "peer-a-thon." Our methods sought to challenge the standard form of peer review while allowing the process to mentor new and emerging scholars and emphasize collaborative writing among reviewers, with the goal of increasing reviewer reliability. The focus for this approach is the level of consensus between reviewers developed through in-person dialogue and collaborative writing. If both members of a reviewer group can determine and describe the value and rigour of an article, it could be reliably determined to be a strong submission. If the submission required one member to interpret and describe the content to the other member, the presentation of the content may be in question and require further development.

Our method responds to certain weaknesses in current peer review practices, not the least of which are rates of sexism and nepotism (Wenneras & Wold, 1997). As Nina Belojevic (2015) writes, it is important to develop alternatives to standard peer-review practices as these alternatives can inspire "a critical perspective on practices, tendencies, or norms that may otherwise simply be accepted without consideration or question" (p. 4). The reliability of blind peer review has often been questioned; for instance, Carole J. Lee, Cassidy Sugimoto, Guo R., Zhang, and Blaise Cronin (2013) present evidence that agreement between reviewers occurs with rates similar to chance, or to that found in similar interpretations of Rorschach inkblot tests. Since consistency across peer reviewers is, arguably, one of the weakest indicators of an article's relative merit, we sought to implement research that suggests improving evaluation through learning and training to help achieve consensus (Jayasinghe, Marsh, & Bond, 2003). If consensus in each peer-a-thon reviewer group can be achieved, the relative merits of argument, evidence, and veracity must also be met. While each of these articles was distributed and commented upon through the journal, *Scholarly and Research*

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Communication, with the installation of Open Journal Systems, the ability to discuss and interpret the relative merits of the submission in person served as the final review stage in which the comments to authors were drafted.

The 15 articles collected in this volume illustrate the creative approaches researchers, students, librarians, and practitioners are taking within the context of new knowledge production models. From project-based examples of digital humanities experiments to broader arguments around the importance of reconfiguring academic research to be more public-facing, the articles included here speak to techniques, models, and challenges for doing scholarship in a networked, digital world. Collectively, they reveal zones of activity in which humanities knowledge—whether rooted in excavations of the past or experimentation in our digital present—enables creative solutions to the ever-evolving challenges of knowledge work. As this collection demonstrates, such solutions do not exist apart from each other, but instead are best mobilized through a deep understanding of their interdependence. Whether revealing new methods for representing knowledge in digital environments, reflecting upon the practices and pragmatics for building such environments, or taking a theoretical framework to chart clear pathways for future reflection and action, the contributors to this volume are in distinct conversation with each other. In this sense, the scholarship collected here is fundamentally networked, reflecting its implementation at the 2016 Whistler gathering, "New Knowledge Models," where contributors gathered to exchange and mobilize such knowledge in person. In such an environment, no single perspective can be fully grasped without an awareness of its others. This open, social sharing of scholarship constructs, in turn, a community of practice in which a diversity of strengths and interests complement and support each other to maintain a critical mass of thought. Beyond appearing as isolated entities, each article in this collection—each contributor—presents a different face of networked, open, social scholarship's vitality.

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