Promoting Open Access and Innovation: From Synergies to Le Centre de Recherche Interuniversitaire sur les Humanités Numériques

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Abstract
This article discusses the relationship between digital humanities and disciplinary boundaries in the last decade, primarily in the context of the national project Synergies. It offers first an overview of Synergies as a concrete example of the way technological change impacts the very notion of disciplines by trying to create a platform that was interdisciplinary by nature, then discusses the creation of a new Digital Humanities centre in Québec—Le Centre de recherche interuniversitaire sur les humanités numériques—and the ways it was conceived as encompassing a range of disciplinary approach.

Keywords
Open access; Infrastructure; Publishing platform

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The fundamental restructuring of the research record represents a vast modernizing opportunity that is a necessary step forward given the ever-increasing dominance and enabling features of the digital media. Howard Besser asserts in the 2004 *Companion to Digital Humanities* that

> [t]hough the promise of digital technology in almost any field has been to let one do the same things one did before but better and faster, the more fundamental result has often been the capability of doing entirely new things. (p. 558)

Digital humanities can do exactly that by contributing to, among other things, the evolution of new methods and methodologies by providing a previously inadequate test bed for research on the sociology of knowledge; advanced bibliometrics and the analysis of research impacts; the development of standards and transmission protocols for digital materials; automatic translation systems; and the dynamics of research communication. As the knowledge economy becomes ever more pervasive, Canada needs to maintain its competitiveness. Social sciences and humanities research in general, and digital humanities in particular, have been at the forefront of the new knowledge economy and should continue to be at the cutting edge of knowledge mobilization.

This article discusses the relationship between digital humanities and disciplinary boundaries in the last decade, primarily in the context of the national project Synergies, which is now finished and was funded by the Canada Foundation for Innovation (CFI) as part of its 2007 National Platform competition, alongside the Digital Content Infrastructure for the Human and Social Sciences (DCI) project, which grew out of the Canadian Research Knowledge Network’s awareness of “the growing need for digital content in social sciences and humanities disciplines” (Canadian Research Knowledge Network, 2013, n.p.). I will thus offer first an overview of Synergies, which, by trying to create a platform that was disciplinary by nature, offers a concrete example of the way technological change impacts the very notion of disciplines. Then I will discuss the creation of a new digital humanities centre in Quebec – Le Centre de recherche interuniversitaire sur les humanités numériques – and the ways it was conceived as encompassing a range of disciplinary approaches.

The present remarks are an attempt to think of the ways technological changes continue to impact social sciences and humanities researchers and the public at large by reconfiguring the dissemination of, and access to, research produced in Canada through the lens of these two specific initiatives, which aim to promote open access and wider accessibility to Canadian research output. These projects attest to the need, but also the difficulty, for any large-scale project to anticipate technological changes in taking output from the research community from the centre of academic life and bringing it to the edge of public visibility. They also engage in different ways with the changing publishing landscape and the need for new conceptual and practical tools to face these changes (Sinatra & Vitali-Rosati, 2014).
Synergies: The Canadian Information Network for Research in the Social Sciences and Humanities

Funded by the CFI in 2007, the Synergies project was intended to fill an important gap in digital publishing in Canada by being the first sustainable, open, e-publication infrastructure for the academy. Its first goal was to offer digital publishing services prepared to international standards with the lowest cost possible for the editorial production side, and also to provide a new Web interface and tools for accessing information produced by researchers in social sciences and humanities in Canada.

Canadian researchers in the social sciences and humanities require two research communication services that can be provided within one structure. The first is an accessible online Canadian research record. The second is access to an online publication service that would place their work on record and would ensure widespread and flexible access. Built on the foundation of Érudit, a Quebec-based research publication service provider in existence since 1998; Open Journal Systems, a British Columbia-based online journal publishing software suite used by over 10,000 journals worldwide; and additional technical expertise developed by its three other core partner institutions at the University of Toronto, the University of Calgary, and the University of New Brunswick, Synergies integrated the work done within its five-party consortium and 21 partner institutions to create a decentralized national platform for social sciences and humanities research communication. Synergies was designed to encompass a range of formats – including published articles, pre-publication papers, data sets, presentations, and electronic monographs – to provide a rich scholarly record, the backbone of which is existing and yet-to-be-created peer review journals. Synergies thus intended to bring Canadian social sciences and humanities research into the mainstream of worldwide research discourse by using a cost-effective public/not-for-profit partnership to maximize knowledge dissemination.

At its first level, Synergies consisted of a five-university consortium that provided a fully accessible, searchable, decentralized, and inclusive national social sciences and humanities database of structured primary and secondary social sciences and humanities texts. This distributed environment was technically complex to implement, and represented a major political and social collaboration that attested to the project's transformative dimension for Canadian social sciences and humanities research and researchers and to the value of technological changes for social changes.

Synergies was intended to be not only a pan-Canadian technical infrastructure but also a mobilizing and enabling resource for the entire scholarly community of Canadian social sciences and humanities researchers. The principle of the open accessibility of publicly funded research was at the heart of this project, a principle that, as Rowland Lorimer (2014) indicates, “seems fundamental to and unassailable in a democratic open society” (n.p.). In embracing the whole of the social sciences and humanities, Synergies fostered cross-disciplinary and problem- and issue-oriented research, while also allowing research that can be time framed, discipline based, media or methodologically specific, theoretically constrained, or geo-referenced. Synergies thus wanted to serve to modernize Canadian social sciences and humanities research communication. It embraced emerging research practice by utilizing existing texts,
enriching, expanding, and greatly easing access to scholarly data and to audiences. It further provided deeper organizational capacity for a fragmented research record, ensuring and enhancing access to existing data sets. It facilitated access via the aggregation of journals and an ability to facilitate agreements between Canadian social sciences and humanities journals and other producers’ and buyers’ consortia. It laid a foundation for expanding the research record to encompass all scholarly inquiry in order to achieve maximum accessibility and circulation. Synergies represented a project in parallel with other national projects and disciplinary databases emerging in other countries, for example, Project Muse, Euclid, JStor, and HighWire in the United States, and Persée and Recherche Isidore in France. Similar to these projects, Synergies captured and disseminated knowledge through a cost-recovery profit-neutral model.

In the last decade, Canadian institutions have invested in institutional repositories, which provide a means for faculty to make their research results widely and publicly available in a timely way. Institutional repositories also address a concern of universities and research funding agencies – how to make data sets, theses, reports, and dissertations easily and more widely available so that scholars and students can fully inform themselves about the scholarly record. Journal output combined with these additional research communication genres has expanded the research record to such an extent that it is virtually impossible for anyone to be fully apprised of the existing literature without electronic aid, which further marginalizes the print record. This wide variety of publication genres, including journal articles, working papers, research reports, government and other contracts, and scholarly monographs, coupled with the sheer volume of output, demands a knowledge management strategy, and Synergies attempted to address that.

Cognizant of ongoing developments in journal, thesis, and institutional publishing, Synergies brought together librarians (in their roles both as information systems creators and providers of access to information resources), journal representatives, and social sciences and humanities scholars from various disciplines who were attuned in their research foci and methodologies to the changing dominant information technology and architecture of the scholarly world and of society in general. At the same time, Synergies was a significant management tool as a result of its aggregative function and its plan to create a transdisciplinary bilingual Canadian social sciences and humanities database searchable in either official language. Although we were unable to implement it, the idea was to create the possibility of automatically translating research into First Nations languages – opening a scholarly channel with disenfranchised groups in Canada – as well as other languages worldwide. In the same way that journals were invented to bring articles together periodically into a significant whole, with the vast expansion of the knowledge sector, multi-journal aggregations are becoming the dominant transactional unit in the institution-based research marketplace – be they commercial or not for profit.

Canadian researchers must continue to take full advantage of today’s information and communication revolution in order to keep pace with and exceed research outcomes from other countries. As with the previous generation of telecommunications technologies, the best way to realize our full potential is to build a national system that
helps to overcome Canada’s inherent realities of vast distance and a scattered, bilingual, multicultural population.

Synergies hoped to keep Canadian social sciences and humanities in the mainstream of global and domestic research information flows, facilitating representational flexibility and emergent research questions, and providing access to match those of other information-producing nations. Synergies presented a resource for developing advanced tools that are in high demand in all sectors of our knowledge economy. New discoveries, the development of new products, and access to a large corpus of data bring prestige to social sciences and humanities fields and attract graduate students and other researchers. The involvement of diverse researchers from different fields, in fact, fosters further a cross-fertilization of ideas and promotes interdisciplinary cooperation.

The breakthroughs to be expected in large-scale digital humanities projects such as Synergies are found first in the reorganization and increased ease, amount, flexibility, and organizational capabilities of access in digital form to the existing print literature and the evolving print literature; second, in the expanded and enhanced media and techniques of representation of knowledge inherent in the digital media; and third, in the observability of previously unobservable behaviour (e.g., access and usage patterns).

Canadian taxpayers spend over $330 million per year supporting social sciences and humanities research, much of which is critical to understanding and improving the Canadian condition. However, this research is not readily available to individual Canadians or their communities, nor to many policy developers or governments. For example, innovative Canadian work regarding federal structures, transportation policy, communications, and health policy does not have a wide audience because it is not online. Synergies was intended from the beginning to help break down existing barriers between university researchers and the general public, which the researchers ultimately serve. As an open communication system, the network allows all individuals and organizations, regardless of geographic location or language, to build communities around their areas of interest. This opportunity constitutes the basis of the democratization of research, as well as the development of a citizenship based on knowledge and information.

In being designed to provide online publishing services and expertise to the whole of the social sciences and humanities research community and beyond, a project like Synergies directly benefited the environment, Canadian quality of life, public policy, and Canadian society in general. The project was meant as a cornerstone for knowledge mobilization in that, with complementary public policy, social sciences and humanities research could be made available to expert knowledge users and the public. As the content was to be tied to possible RSS feeds, information experts (policy analysts, journalists, research popularizers) would have been able to build customized information environments that would have allowed further interpretation in order to maximize public value. A project like Synergies, though this goal is shared by several other large-scale digital humanities projects, was meant to ensure that Canadian...
leadership in the knowledge economy continues at a national level. Those areas and
nations that have moved to online publication have seen the prestige and usefulness of
their scholarship flourish. This Canadian network promoted a knowledge-based
citizenship, which should carry over to the administrative and socio-institutional levels.
This means that it would continue to bring forth innovative modes of organization and
cultivate a fluidity and transparency in its communications. What makes it all the more
valuable is that, as we are dealing rather with a social process for constructing
organizations, it cannot be achieved through legal fiat. The collaborations among the 26
universities involved in the project (institutions that are normally in competition with
one another) inevitably led to strengthening collaborations between scholars and
public and semi-public national organizations, such as social sciences and humanities
academics, the Canadian Association of Research Libraries (CARL), the National
Research Council of Canada (NRC), the Canadian Association of Learned Journals
(CALJ), and the Fonds québécois de la recherche sur la société et culture (FRQSC).

More than just benefiting present-day research, the organization of data within the
Synergies infrastructure was standardized for use by future research initiatives. In that
sense, its goal overlaps with the idea behind the Advanced Research Consortium
(ARC): “to construct and support a ‘social system’ for the humanities in which the
digital and the traditional can come together to develop a working social humanities
infrastructure” (Grumbach & Mandell, 2014, n.p.). Academic communities in Canada
and elsewhere have access to content – pre-print materials, monographs in digital form,
multimedia objects – that was previously unavailable or obtainable only with great
difficulty. More importantly as an example of positive technological change, a project
like Synergies was meant to allow researchers to ask new questions, to draw on
previously inaccessible information sources, and to disseminate their results to a much
broader range of knowledge users in the public, private, and civil sectors of society. All
of these possibilities greatly benefit Canada as a whole. Universities must continue to
invest in projects that provide researchers, decision-makers, and Canadian citizens
with direct, organized, and unprecedented access to the vast store of knowledge created
within our universities, in both official languages, regardless of geographic location,
subject, or discipline.

Le Centre de recherche interuniversitaire sur les humanités numériques

Moving from the discussion of a nationally based project that ultimately did most of its
work behind the curtains in providing infrastructural supports for the transformation
and dissemination of data, and in which disciplinary boundaries were not perceived as
crucial in that the emphasis was on the technological side, I now turn to a regional
project that wants to highlight the relevance of digital humanities, not only for various
humanities-based disciplines but the public at large as well.

As we all know, our knowledge society is overwhelmed with information. The
humanities have always been the disciplines that try to understand the variety of
human histories and expression. Now humanists are contributing to Canada’s capacity
to both represent itself on the global Internet and to make sense of the excess of
information. The problem of information is not one of finding things – it is a problem
of knowing which questions to ask and how to make our information smart enough to

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help others answer meaningful questions. It is no longer a matter of making things work, now the issue is an excess of multilingual and multimedia information.

One way to address this overflow of information is by leveraging digital humanities centres. As Neil Fraistat (2012) powerfully argues in Matthew K. Gold's collection of essays, *Debates in the Digital Humanities*, these centres have become important laboratories for the application of information technology to humanities research; powerful advocates for the significance of such work; crucial focal points for the theorization of the digital humanities as a field; and local nodes for cyberinfrastructure, or e-science. In Canada, Compute Canada is working toward a tighter integration between digital humanities centres and its own “advanced research computing capabilities and support” for humanities researchers (Simpson, 2015, n.p.). This important change comes on the heels of over a decade of developments of digital humanities centres existing in various forms in different provinces.

In Quebec, the Centre de recherche interuniversitaire sur les humanités numériques (CRIHN) was founded in the fall of 2013 in order to offer a new structure for over thirty researchers from four universities working on various aspect of digital culture. These researchers come from various disciplinary backgrounds, primarily in the humanities but with some in social sciences (mainly communication and information studies). They all have in common, however, a theoretical and practical knowledge of digital humanities that, when put under one roof allows them to take the full measure of the digital turn that is characteristic of our times. They also all share an interest in open access and see it, as Jean-Claude Guédon (2014) writes, as an indispensable part of research.

From the question of digital literacy, electronic eavesdropping, and the reform of copyrights to new forms of publications, visualization tools, and an evolving economic model to disseminate information electronically, it has become more urgent than ever before to provide the scientific community and the public at large with conceptual tools and concrete examples to find their way in the sea of data (now commonly referred as “big data”). The centre is built around two axes, with two themes in each, and one digital observatory that will not only act as a bridge between the axes but also between the centre and the public at large.

Although everyone agrees on the ubiquity of the digital (everything in our lives being digital to a large extent at present), and that an in-depth engagement with this topic is a priority, it is still in the early phase of being implemented. Thus, identifying and developing methods to accompany this process; the creation of a corpus of works and authors that are reliable references in this field; and establishing a common language that can be shared by the research community and the public, are very much at the heart of many discussions, but often still at an embryonic stage. The transformations that are behind this new digital world we inhabit took place very rapidly and left little time for researchers to develop a detailed and structure method to analyze them. It is thus crucial to create a series of theoretical landmarks that will allow us to have a more accurate sense of the landscape in which our society evolves, to understand how our values and traditions, and even our collective imagination, are being reshaped by
technology. Humanities disciplines are particularly well suited for the task of analyzing these aspects of our digital world.

In the same fashion as the series of changes to forms and models of publications, the way that information is created, shared, and consulted has undergone some fundamental changes in the last two decades. What is thus required is not only a reconceptualization of a theoretical understanding of digital culture but also the implementation of a series of new tools for disseminating information – for finding it through data-mining techniques and for long-term preservation, and also to visualize this mass of data, be it textual, sound based, or visual. These tools should be developed by and for humanities scholars, and at the same time be studied for the ways in which they transform future research as well.

On a theoretical level, it is worth bearing in mind in a concerted fashion the question of the digital as it is constructed on a societal, epistemological, and political level. If the cultural change resulting from digital technology and social networks is obvious, its precise contour is still unclear. In what ways does this technological change fit within a longer series of cultural and historical changes, such as, for instance, the relationship between electronic literature and digital literature and the way, as Marcello Vitali-Rosati (2015a) argues, “this change of adjective hides a change in the theoretical status of the object that it attempts to define” (n.p.). To think about the continuity and discontinuity of the digital world in the context of the development of Occidental culture at large, and the very methods of communicating knowledge throughout history, is a key query for the creation of a space in which current knowledge resulting from various disciplinary backgrounds can mesh in a productive way toward a newer understanding of digital culture.

On a pragmatic level, the centre brings together tool developers and a series of electronic editors to rethink the production and output methods of traditional scholarly projects, as Patrick Svensson (2010) asserts:

> [t]here is a difference between a tool that mainly allows you to search for linguistic constructions in a text database (showing results in a table or concordance list), and a tool that does that as well as provides an interface where you can visualize results, create interpretative models, collaborate with others and combine different medial representations (for instance sound-audio, text, a timeline and relevant metadata). (n.p.)

It is indeed important to provide academic and public communities with some conceptual tools and concrete examples of new, accessible models of scholarly editing and knowledge transactions that can help guide everyday practices in our digital information society.

The CRIHN provides a space for engaging these topics on these levels along the two axes found at the core of the centre’s mandate: “theorizing the digital” and “instruments of knowledge.” The first axis focuses on a theoretical framework for understanding the goals and major shifts that have occurred in digital culture, and offers conceptual tools

for describing these changes, specifically in the context of research dissemination. Thus the theme “digital dis/continuity” sheds a historical and philosophical light on digital practice within the scholarly community. The second theme, “new knowledge production & transmission,” takes this further by exploring new ways of scholarly dissemination and the reconceptualization of the process of editorialization.

Editorialization is the set of elements that contextualizes and gives meaning to a particular content in the digital space. As Marcello Vitali-Rosati (2015b) stresses, editorialization “consists in editorial practices that cannot be lumped together with what we generally refer to as ‘editing’” (n.p.). The forms of editorialization and their functions in the production of a document’s meaning – and in particular a digital text – can be studied and analyzed starting from what Gérard Genette called “paratext,” (1987) a concept recently explored in the context of digital culture by Nadine Desrochers and Daniel Apollon (2014). In this context, this axis intends to explore the ways in which the authorial function is no longer necessary to produce a digital text’s meaning or legitimation, since this function is taken on by the set of editorialization elements. Only twenty years ago, an authorial function was necessary to give meaning to a document, wherein the action of buying a book was connected to the knowing its author. When reading a text online, the authorial function is no longer necessary to understand its meaning. Access to the document and its context depends on the set of editorialization devices, in other words on all that surrounds the text without being an actual part of it; a reader can read a text because he or she is able, in the first place, to find this text, wherein its access is based on an algorithm or on a set of links.

The main goal of the second axis of the centre is to assist researchers in transforming in a very concrete fashion the way they create, analyze, visualize, and disseminate humanities research. Moving from the tradition of the printed text to a fluid series of outputs (the electronic equivalent of a scholarly edition, for example, or innovative ways to represent data visually in an interface that gives a new meaning to the data displayed and, in turn, generates more research), researchers involved in the two themes of this axis (“mining data” and “collaborative digital scholarship”) will strive to redefine the ways scholars access these tools without a prerequisite programming knowledge.

The CRIHN will thus allow a group of researchers to make visible our concept of a platform that can combine discoverability tools with organizational and analytical ones, as well as the modern forms of scholarly dissemination, which includes an actual social network. This network goes beyond the use of social media to actually create a live community comprised of researchers who are already involved at the individual level in various projects related to the impact of digital culture on scholarly methods for creating, studying, and disseminating research output. A major structuring effect anticipated with the creation of the centre is to bring theorists and developers/creators of digital content in conversation with each other, but also, through the implementation of a digital observatory, to create a showcase of scholarly works translated through vulgarization for the general public and members of the media. As our society finds itself more and more engulfed in technological changes, we hope to offer some commentary on the very notion of digital humanism seen not only through the impact of social media on our day-to-day lives, but also in the way that information
gets written and accessed. It is no longer only by humans providing information to
others or accessing information made available by computers, information is now also
being prepared and transformed by computer systems devised to analyze huge amount
of data in real time.

In conclusion, I would remind you of the moment when the current disciplinary
structure of the humanities in the West assumed its present shape over a hundred years
ago, and though the world has changed much since then, humanities disciplines
arguably have not, as Jerome McGann (2014) explores in his recent book *A New
Republic of Letters*. Digital humanities centres have sprung up to accommodate the
challenges new media and technologies, and the particular forms of knowledge and
interdisciplinarity they entail, pose to the traditional humanities. Humanities centres of
both kinds have been historically positioned to dream the future of the university, to
take the lead in scholarly innovation and disciplinary transformation, and to push
forward the promotion of open access.

Notes

1. The Synergies project was from the start a collective effort involving the members
   of its steering committee under the leadership of Michael Sinatra. The contribution
   of the members was vital to the conceptualization and successful implementation
   of the project between 2007 and 2012. For more information on the members of
   the steering committee and the technical achievements of the projects, see
   Synergies (2011).

2. The SSHRC grants and scholarships budget for 2014-2015 was $332.1 million
   (Social Sciences and Humanities Research Council, n.d.).

3. The recent tri-council policy on making the results of funded research available in
   open access within 12 months is a great step toward improving access in principle.
   The practical implementation of this brand-new policy is still to be observed.

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