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## "Textualities in the Digital Age"

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The third issue of *Humanist Studies & the Digital Age* is partially devoted to the proceedings of a symposium held at the University of Oregon on April 14, 2012, entitled "Textualities in the Digital Age". The symposium gathered together a diverse group of scholars in digital humanities, information sciences, law, and computer science to provide widely varying perspectives regarding questions as to how the study of historical texts and the creation of new texts have changed with the advent of digital technologies.

Advances in communication technology have altered the notion of text throughout history. With the adoption of the printing press in Western Europe during the second half of the fifteenth century, written texts were liberated from the constraints of hand-copied documents. The printing press led to the mass production of books. Suddenly thousands of pages a day could be produced by a single printing press compared to the few produced by a single person handcopying a text. Prior to this revolution, the common "text" of the day for communicating news and current public issues was not written, but was the spoken word or song. With the advent of the printing press, daily newspapers and alternative philosophical and political books appeared. The spread of the diverse ideas and opinions that the new technology enabled would lead to revolt in the church and eventually to the rise of science, philosophy, the expression of personal freedoms and desires, and nationalistic fervor throughout Europe. As for impacts on the text itself, the notion of *edition*, reflecting a particular mass printing of a textual document, became an important, new concept. Having a text published, thereby gaining access to the printing presses that would create a released edition, became a critical, gatekeeping step in the production of new texts. The controlling role of editorial review and publication remained effective until the advent of digital communication technologies began to overturn these key elements of the textual world.

The impacts of advances in communication technology upon the text have been complex and multifaceted. Such technology directly alters the means of production and distribution of a text. Indirectly this affects what is included in a text and how that message is encoded in the text. These are but a few of the topics to be considered by textualities research. Digital technologies have broken many of the rules of previous textual technologies. No longer is editorial review required to unleash a text that can now become widely available to the world in seconds. This change has had dramatic consequences for writers and readers alike. While information can be made available almost immediately, there is no longer control over its source or veracity.

The structure of texts as individual, complete entities in themselves is changing. Documents can not only cite related works but provide (hyper)links that allow near immediate access to those works. A text, while always occurring within a historical network of related texts, now becomes literally part of an immediately available web of texts that any reader must confront and decide navigate. More and more these texts become dynamic how to entities. commented upon by readers who forward the amended text to others for their reading and commentary. Furthermore, texts have become multi-media entities, including video and sound, as digital technology provides a common basis for encoding all forms of information.

The widespread adoption of digital communication technologies has opened up a broad range of research questions, resulting in studies within psychology, sociology, education, computing, and the humanities regarding our various relationships to text: what these relationships have been, what they are, and what they may become. The symposium "Textualities in the Digital Age" provided a sampling of this research, addressing some of these questions.

The first session of the symposium consisted of two talks that discussed how digital technology is changing the way we relate to older, extant texts. Massmo Lollini described the Petrarch Open Book Project he leads that is being developed at the University of Oregon. The main focus of the project has been the visualization of recent versions of Petrarch's Canzoniere from the diplomatic edition prepared by Ettore Modigliani in 1904 to the critical edition prepared by Giuseppe Savoca over the last decade. In addition, there is an effort to create comprehensive database system for musical adaptations а of Petrarch's Canzoniere, exceeding all existing archives in scope and content. We immediately see one impact of digital technology upon important historical texts, as the project website notes: "Petrarch is again in sight" (http://petrarch.uoregon.edu/). The distributional power of global digital technology, bringing historical works out of the closet, is evident in much of the work discussed at the symposium. Beyond mere distribution, another effort is to link versions of the text to relevant commentary and translations, creating a readily accessible academic world around the original text. Finally, there is the inclusion of mechanisms whereby an

interested community of researchers can annotate and comment on the text, forming a social as well as textual network of interest.

The second talk in the first session was presented by Abigail Firey, who discussed the Carolingian Canon Law Project hosted at the University of Kentucky (http://ccl.rch.uky.edu/). The project is dedicated to building a database of Latin texts comprising any canon law that might have been available, in theory, to Carolingian readers. As such, there are texts from the fourth century up through the ninth century and into the tenth. The primary goals of the project are to collect highly accurate transcriptions of the original, handwritten canons and to provide search methods for locating elements of interest in the texts. The latter represents another transformation that digital technology offers to scholars of historical texts: the abilities to quickly search and extract relevant pieces of a text, to view or compile statistics regarding the texts, and to compare related texts or versions of a text for differences. Again, creating a virtual space in which a community of researchers can collaborate in their studies by providing new texts and commentary is a key element of research in digital textualities.

The second session focused on efforts to apply standard computer science methodologies to problems in language and text. Stephanie Wood, of the Wired Humanities Project at the University of Oregon, described her team's efforts at compiling an online Nahuatl dictionary. This is one of several projects underway to create online, multimedia, searchable dictionaries of indigenous languages of Mesoamerica, both historical and modern. Other languages currently under study are Mixtec, Mayan, and P'urhe'pecha. Here we see the power of digital technology to maintain or archive languages that are disappearing, as modern languages that are distributed in large part by digital technology now dominate the global exchange of ideas. Turning texts into global documents is having a homogenizing effect on discourse and the languages used.

The second talk of that session was given by Richard Furuta of Texas A&M Furuta University. founder of the was а Cervantes Project (http://cervantes.tamu.edu/V2/CPI/index.html), which was one of the first digital humanities efforts to study a particular author and text in depth. Furuta has considered research questions about the notion of digital documents and their formalization for over twenty years. He provided a general overview of digital texts from a computer science perspective and discussed what some of the problems and opportunities are for future developments.

A lively keynote address for the symposium was given by Stanley Fish, entitled, "If you can count it, they will come." Fish, who is presently the Davidson-Kahn Distinguished University Professor of Humanities and Law at Florida International University, is a distinguished author and humanist much of

whose published research has been directed at issues of textuality. His presentation offered a critique of the sometimes rather simplistic approaches to digital research in the humanities and discussed the true character of reading and writing and their interactions. As a blogger for *The New York Times*, Fish has become acutely aware of the impacts that digital communication technologies are having on texts. He has moved from a world where he controlled every word of every book he published to the world of blogs, which are more informal, brief, and interactive, with readers' comments becoming part of the texts and out of control of the original author. Consistent with our journal's view of the expanded notion of digital text, we include a video of Dr. Fish's presentation as an entry in this edition.

The afternoon sessions were more informal and practical in nature. Karen Estlund and John Russell of the University of Oregon Library presented a discussion on the transitioning model of library services as it adapts to growing emphasis on digital documents and accessibility. Estlund reviewed the state of the field for library support of digital scholarship from digitization to publication and preservation of content while Russell described a model of thinking about the modern research library as a service rather than merely as the sum of its collections, challenging our assumptions about the value that libraries provide to scholars and how this relationship may change in the future.

Stephen Fickas of the Computer and Information Science Department at the University of Oregon presented an overview of his group's recent work on electronic textbooks. The focus of the research is to turn textbooks into a more supportive and active learning environment. An electronic textbook can evaluate a student's understanding of the material by presenting questions; depending on the student's responses, the textbook can "decide" what material to next present, i.e., further review or new content. Links to a professor's explanations of material in the text are included, as are links to other student comments and questions, creating a social context for learning. Again, the notion of text as a completed work at publication time is changed into a dynamic, responsive entity that is different every time it is read.

The symposium concluded with a lively discussion of emerging notions of text as influenced by digital technology. In particular, the incorporation of artificially intelligent elements into the textual context was discussed. With rapid expansion in the abilities and applications of data and text mining just beginning to appear, as in the Siri application on iPhones or the Watson system that defeated human experts on *Jeopardy*, the idea of intelligent texts that automatically present information relevant to the expressed interests of a reader is becoming reality. How this technology will impact the textualities of the future has yet to be seen.