Introduction

Only the curious will learn and only the resolute overcome the obstacles to learning. The quest quotient has always excited me more than the intelligence quotient.–Eugene S. Wilson[1]

Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will.–George Bernard Shaw (1856–1950)[2]

There is only one admirable form of the imagination: the imagination that is so intense that it creates a new reality, that it makes things happen.–Sean O'Faolain (1900–1991)[3]

How are the "humanities" defined? A fairly general dictionary definition would be: "branches of learning (such as philosophy or languages) that investigate human constructs and concerns, as opposed to natural processes."[4]

More specifically, humanities involve the process of evaluation and inquiry into ideals, values, and other esoteric concepts that shape our lives and experiences. This is in contrast to the sciences, where observation and documentation of facts, hypotheses, and experiments related to the physical and natural universe are emphasized.

Digital humanities (and the related terms "e-humanities" and "humanities computing") arose out of the early computing machine environment immediately after World War II in the 1940s. Dr. Roberto A. Busa, generally, is considered the "father" of digital humanities.[5]

The history of humanities computing and digital humanities is one centered on text: its presentation, coding, and manipulation. Technological advances, the appearance of the World Wide Web, and new directions in technology have moved digital humanities into the full range of multimedia. But at the basic level, it's important to remember that humanities scholarship still strongly deems that application is just as important as theory. In other words, the interpretation of archival materials and the tools to facilitate interpretation of those materials are equally important.

The challenge for those involved in the digital humanities has been blending both technology and traditional scholarship methods into a new paradigm for the profession. This new paradigm has been expressed uniquely in a number of essays and publications, of which a few will be summarized here.

Digital Humanities Paradigm Resources

The most important print publication thus far is *A Companion to Digital Humanities*.[6] This very important resource provides an excellent summary of the history of humanities computing[7] and is divided into sections:

- Part I examines the field from a disciplinary perspective, with chapters on archaeology, art history, classics, history, lexicography, linguistics, literary studies, music, multimedia, performing arts, and philosophy and religion.
- Part II discusses the field from a principles perspective, with chapters on computers, classification, databases,

Humanities Defined
http://writing.colostate.edu/references/teaching/co301aman/pop6b.cfm

text markup, text encoding, electronic texts, and modeling.

- Part III then expands into applications, with discussions on authorship studies, analysis of linguistic corpora, electronic scholarly editing, textual analysis, thematic research collections, digital resources, digital media and film, literary cognitive stylistics, multivariant narratives, speculative computing, and robotic poetics.
- Part IV focuses on various topics related to the production, dissemination, and archiving of digital content, with essays on sustainability, primary source conversion, tools, usability and aesthetics, professionalism, digital libraries, and preservation.

Overall, this book is an essential reference and guide for anyone exploring the digital humanities in its current state.

Another source of information, particularly related to the concept of e-humanities, is the *e-Humanities Research Report,* which was composed by the Australian e-Humanities Research Network.

Besides providing a definition of what e-humanities is, the report divides e-humanities research into two distinct but related categories: arenas of individual or teams of scholars working with digital technologies and integrating them into their research and teaching, and exploration of specific research questions and exploring the new technologies to help answer those questions.

While the report discusses a number of current Australian projects in the e-humanities, many of the links to the projects don't work, or the projects are not "innovative" enough (according to the criteria set up in the Preface of this work) to be included in this issue of *Library Technology Reports.* The report, however, does link up to a number of important groups and networks on the international level, and some of the projects from these groups will be discussed later. In addition, the conclusion of the report does provide some concrete suggestions for future viability in e-humanities scholarship.

There are a number of interesting essays related to humanities computing that need to be mentioned and summarized here.[8] The first is Willard McCarty's seminal essay, "What Is Humanities Computing? Toward a Definition of the Field." One of McCarty's most important statements is under "Meditation," where he states: ". . . computing the humanities is not about speeding up conventional scholarship, or making its performance more efficient or accurate, although all those improvements can occur, because what we mean by scholarship itself changes in the process," (a quote from Busa himself).

The second essay is "Knowledge Representation in Humanities Computing," by John Unsworth. Dr. Unsworth, one of the leading pioneers in humanities computing and the Text Encoding Initiative (TEI), discusses how to incorporate and blend knowledge representation in humanities computing. Interestingly, his discussion centers on an essay that points to specific illustrations/examples that help to define his line of reasoning and thought.

The third essay—and a fairly recent attempt to help direct the future of the field—is, "A Roadmap for Humanities Computing," by Willard McCarty and Harold Short in July 2002. McCarty and Short have developed an interactive "map" of humanities computing at the present time, coming close to emulating medieval humanist theory (Aristophanes and the medieval anonymous "Cloud of Unknowing" writer) with 21st century technology in its presentation. The "map" is divided into three zones:

e-Humanities Research Report
www.ehum.edu.au/arc-report/context.html

"What Is Humanities Computing? Toward a Definition of the Field"
www.kcl.ac.uk/humanities/cch/wlm/essays/what/what_is.html

"Knowledge Representation in Humanities Computing"
www.iath.virginia.edu/~jmu2m/KR/KRinHC.html

"A Roadmap for Humanities Computing"
http://maple.cc.kcl.ac.uk/mccarty/map

1. at the core/center of the map, a "Methodological Commons," which represents current computational methods and applications;
2. multidisciplinary groups (represented by rectangular boxes above the Commons) that directly interact with humanities computing; and
3. broad areas of learning (represented by "clouds of knowing" beneath the Commons) that are provisional in understanding and are bodies of thought that interact with the content of the Commons.

Everything in the Commons and in the rectangular boxes is hyperlinked (although most of them do not contain any content at this time; specifically, only "Literary & Linguistic Studies" and "Performance Studies" have any essays linked at this time).

The Commons area has two essays hyperlinked to it: one on manuscripts, libraries, and archives, and the second is the historical bibliography, "A Serious Beginner's Guide to Hypertext Research." This particular representation of the current and, perhaps, future state of humanities computing is what I would call "innovative," in that it goes beyond text. It uses hyperlinks and media to present a picture of the field, thus providing the user with a "visual" reference rather than just words.

There have also been various attempts by those in the humanities field to build a database of digital humanities projects, none of which has been particularly successful. The NINCH (National Initiative for a Networked Cultural Heritage) International Database of Digital Humanities Projects was a proposal for such a database, but the project never really took off; the proposal and database structure, however, are still available online.

The ARL (Association of Research Libraries) Digital Initiatives Database does have content but content contribution is on a strictly volunteer basis, thus it cannot claim to be authoritative or comprehensive.

Finally, the Survey of Humanities Computer-Based Projects is defunct but the search interface is still available on the Internet.

The Arts and Humanities Data Service (AHDS) has an online set of "Guides for Good Practice" for various disciplines in the humanities. Divided into archaeology; history; performing arts; literature, language, and linguistics; and visual arts, these guides are freely available on the Internet, or printed copies can be purchased. The most "innovative" guide available on this Web site is: "Creating and Using Virtual Reality: A Guide for the Arts and Humanities."

Not only does it contain very practical and technical explanations and descriptions of using various tools such as eXtensible 3D (X3D), Virtual Reality Modeling Language (VRML), and Java3D, but it also provides access to a virtual reality case study library that illustrates actual projects done in 3D. All of these projects are innovative, and most require the user to download plug-ins to access the content. Most of these will be discussed in the "Projects" section of this issue.

To conclude this introductory section of this issue of *Library Technology Reports*, mention must be made of an advisory panel of humanities scholars that was convened in June 2004 by the Digital Library Federation (DLF). The purpose of this DLF meeting was to find out what scholars valued and needed from digital library services. All of the participants were digital humanities project directors and leaders, and their results summary, as well as links to their projects, is available online.

Barriers to digital scholarship, the need for tools, a discussion of services (such as institutional repositories and harvestable metadata), and digital library collections were some of the topics that were addressed by the panel. Every librarian looking at new services and tools to assist those working in the digital humanities should consult this list.

The organization of the content in this journal is based on the annotated description of resources in the humanities, with the majority of the work centered on discussing "innovative" digital projects in the humanities, as already defined in the Preface. Short sections will be devoted to associations, conferences, journals, blogs, and software/tools available online. A somewhat longer section on Web portals in the humanities will precede the project description section. All online resources cited in this work were available and linkable (unless otherwise noted) as of May 24, 2005.

NINCH Intl. Database of Digital Humanities
www.ninch.org/PROJECTS/data/database.html

ARL Digital Initiatives Database
www.arl.org/did

Survey of Humanities Computer-Based Projects
http://users.ox.ac.uk/~ctitext2/survey

The AHDS "Guides for Good Practice"
http://ahds.ac.uk/creating/guides/index.htm

The AHDS "Creating and Using Virtual Reality..."
http://vads.ahds.ac.uk/guides/vr_guide

DLF Digital Humanities Scholars' Panel Results Summary
www.diglib.org/use/scholars0406

Notes

1. Quotation #3608 from Laura Moncur's *Motivational Quotations*, available at The Quotations Page, www.quotationspage.com
2. Ibid, Quotation #1656
3. Ibid, Quotation #3096
4. Taken from *Humanities Defined* at http://writing.colostate.edu/references/teaching/co301aman/pop6b.cfm
5. See Roberto A. Busa, "Foreword: Perspectives on the Digital Humanities" in *A Companion to Digital Humanities*. Ed. Susan Schreibman, Ray Siemens, and John Unsworth (Oxford: Blackwell, 2004). See pp xvi–xx for information on Busa's project.
6. Ed. Susan Schreibman, Ray Siemens, and John Unsworth, *A Companion to Digital Humanities* (Oxford: Blackwell, 2004).
7. Written by Susan Hockey (pp. 3–19), succinctly divided into various time periods and emphasizing the importance of creation and development in the Text Encoding Initiative (TEI) as a driving force.
8. Many of these essays can be accessed from the Resources Page at the Rossetti Archive (www.rossettiarchive.org/resources.html), under the "Bibliography, Imaging, and Humanities Computing Resources" heading.