Philosophy and Digital Humanities: A review of Willard McCarty, *Humanities Computing* (London and NY: Palgrave, 2005)

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Abstract

A review of Willard McCarty's *Humanities Computing*.

Humanities computing is still a fledgling discipline, in spite of its claim to a lineage now decades old that descends from the estimable Father Busa and his assiduous labors in the stony fields of concordance and corpus linguistics. The cultural authority of computing has an older history yet, linked as it is to traditions of analytic thought and rational calculus in the work of Descartes and Leibniz. Noble pilgrims of the flock have wrestled hard in recent years to define humanities computing and dignify the complex undertaking with a status beyond mere service. By taking on the challenge of framing the intellectual project as an epistemological one, Willard McCarty raises issues germane to the humanities in their current dialogue with digital technology. McCarty's method is that of the *via negativa*, a rigorous approach to the study of knowledge through attention to ignorance, that pushes at assumptions to lay them bare. For McCarty that means we should pay attention to our ways of knowing as much as to objects of knowledge. So if knowledge is not an object, but a method, then humanities computing is a way of producing knowledge, and McCarty asks how it works as an epistemological practice. To answer this question, McCarty moves through a series of discussions meant to define and address the issues he sees as central ones. What is the scholar's task, particularly the task of commentary? What is a discipline? How does analytic reason relate to humanistic inquiry? What may be automated? And perhaps most basic of all, how are scholarly activities in the humanities to be understood as interpretive acts in which modeling is fundamental? Focusing attention on the ways computational techniques produce means and objects of study for humanists, he brings the humanist's skills to bear in creating historically-referenced, philosophical self-awareness in his study. [1]

This book sits very comfortably within the growing corpus of works in this field. More specifically focused, pragmatic books like Susan Hockey's *Electronic Texts in the Humanities* and case-based studies, such as *Electronic Text: Investigations in Method and Theory*, edited by Kathryn Sutherland, have posed some of these arguments around the edges of their central project of documenting and discussing research methods and practices. The pieces in the Blackwell's *Companion to Digital Humanities*, edited by Susan Schreibman, Ray Siemens, and John Unsworth present a wide range of framing arguments within the individual pieces, some blatantly speculative and theoretical, some waving aside philosophical issues and just getting on with the job of introducing text encoding or the current impact on specific disciplines. Among these publications, Jerome McGann's *Radiant Textuality* stands out for its particular breadth. Shot through with insights from the textual critic's experience, it is a graceful and engaging introduction to the workings of a scholar's art in and through development of a first-generation project of the Institute for Advanced Technology in the Humanities at UVa. The coming of the Web and the serious engagement of John Unsworth with the creation of the Rossetti Archive so that it could be served in a networked environment, not just a digital one, is crucial to the reflections in *Radiant Textuality*. McGann's report of the progress of digital collection building documents a revelation — the coming into awareness of the possibilities for ways of thinking differently, anew, and with renewed enthusiasm about textual studies and interpretative work that finds many echoes in the digital scholarly community in the last decade. McCarty also got his digital hands dirty, so to speak, through his development of computational techniques to study the way personae are constituted linguistically in Ovid's *Metamorphoses*. These experiences are crucial. [2]

McCarty's unique contribution here is the singularity of his focus on digital humanities as an epistemological undertaking. For this reason, contrast with the work of McGann is particularly useful since it brings out sharply the outlines of McCarty's orientation. McCarty's attention is shaped by an allegiance to analytic methods that aspire to the objectivity of those used in empirical sciences while McGann's is forged in an ever-increasing insistence on the subjective inner-standing point as the locus from which knowledge is produced. On the face of it, McGann's approach would seem irreconcilable with the formalizing, disambiguating constraints of computational technology, while McCarty's deliberate adherence to ratio seems calculated to fit this inquiry perfectly. But the strength of the field is demonstrated by the fact that different as these two scholars are in their approach to digital humanities, their work complements rather than cancels each other's. The history of knowledge in which McCarty wants to place digital humanities is scientific rather than literary in its cultural affiliation, more in the lineage of philosophy of science (Thomas Kuhn, Kurt Gödel, and Hans Gadamer) than that of poets and literary philosophers (Mikhail Bahktin, Alfred Jarry, Francesco Varela, or Roland Barthes). Humanists gravitate to various intellectual poles, and our understanding of humanities computing will continue to expand when approached through yet other intellectual avenues. Aesthetics, visual epistemology, and cultural anthropology, for instance, leap to mind and the volumes pumped out through MIT Press, Manchester University Press, and Harper's Basic Books are ample testimony to the critical industry of cyber-studies that crosses blurry boundaries somewhere near the edges of humanities computing.

The four chapters that form the core of McCarty's book each take up a different aspect of digital humanities: modeling, genres, discipline, and computer science. He ends the book by setting an agenda for the field that contains a number of very practical recommendations with regard to building a professional community and establishing a broader awareness of the field and its value across disciplines. But he begins with modeling, and rightly so, since understanding the ways we give form to knowledge are crucial to any other insight. His analysis emphasizes the activity of creating models as schematic, abstract structures, but he quickly makes a compelling distinction between dynamic processes and static abstractions. Only through an iterative process of feedback and rework can modeling remain open to the intellectual challenge of humanistic inquiry. The concept of "the model" lies at the heart of any analysis of a representation or expression of human intellect. Here McCarty draws usefully on the critical literature in the sciences to make his points, emphasizing the need for the self-reflexive method. Since, as McCarty points out, historians and philosophers of science have long paid attention to the role played by models, that critical literature provides a useful foundation for thinking about how we think about things — and also, about thinking itself (albeit from within a specific disciplinary perspective). Modelling the thinking process is the grail here, and though much of this theoretical reflection gets swept aside in the heat of actually making digital artifacts, it's worthwhile to step back and remember that one of the great benefits of working in a digital environment is the productive conflict between the habits of humanistic thought and those of the logic-based systems on which computational activity depends. McCarty makes perhaps too much of the authority of logic, and seems to place a priority on rational thought that I would challenge on philosophical grounds (part characterological difference, no doubt, and part a difference of intellectual training). I think the cultural authority of computing has rested too squarely on an assumption of the intellectual validity of reason and rational process. Challenges have to come from subjective and aesthetic realms with equal, and equally potent, authority. But those are my thoughts, not McCarty's. (As McGann is fond of saying, "The poets got it right.") McCarty wrestles with mathesis to come to its terms, perhaps in the belief that reason has a verifiability that gives it clout. In any case, his allegiances are consistent, and he works to pull the interpretive uncertainties of modeling into alignment with the procedurally self-conscious rigors of analytic method and out of what he considers the fire (or rapids) of mere fashioning of form for convenience. Would he allow the possibility that a computational model might work through an aesthetic provocation? He seems to leave the way open since he concludes by noting a fundamental paradox, that though we may aspire to (a pseudo or real) empirical method to model cultural artifacts, we nonetheless have to realize that "modeling anything" is "an imaginative act".

In the chapters that follow, "Genres", "Discipline", and "Computing", McCarty addresses the way scholarly activity, particularly that of creating commentary, changes in a digital environment. Unlike the discussion of modeling, with its scientific reference frame, this is squarely in humanist territory. Rethinking the notion of the library, document, and text are all familiar conversations, hotly and richly discussed in the last few years in popular and specialized realms. This brings McCarty to the business of defining a discipline, and he borrows his terms here from cultural anthropology,

casting a critically descriptive eye on the emerging intellectual formations in digital humanities and their nascent institutionalization in its early phase development as a "systematic science". His discussion of "Computing" explores the way automation is achieved, with particular interest in and emphasis on the history of "rules of thought" that find their effective (and instrumental) manifestation in algorithms. The transformation of cultural artifacts and humanistic approaches into "computationally tractable data" is the central task of humanities computing in McCarty's view, and so he concludes his epistemological inquiries (all far more detailed, subtly nuanced, richly referenced, and complex than my reductive account of them here) with an appreciation of the extent to which computing has succeeded through formal means, however qualified we must be about the limits of formal systems for modeling humanistic artifacts.

McCarty's arguments are dense. This is not a book through which to be introduced to digital humanities, but a book meant to prove that digital humanities can sustain a serious intellectual inquiry about its methods. Its arguments are posed in a language of philosophic investigation. Those looking for (or dependent on) concrete examples from case studies will need to look elsewhere for a way into these debates. McCarty has ample sources and reference points, and his experience with Ovid is at the heart of his discussions. But those without a penchant for abstract discussion may find this text elusive and unnecessarily, pedantically overworked at times. But *Humanities Computing* deserves considerable respect, both for what it aims to do and does do — to frame the diverse activities of this emerging field within a critical study of epistemology, calling into question basic premises and politics of knowledge production. His works shows that this field is a worthwhile intellectual undertaking, one that is humanistic at its core (concerned with the preservation and continued reinterpretation of our cultural legacy) and disciplined in its means.

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What McCarty doesn't say, but could have on the basis of his study, is that humanities computing may even be the most important humanistic project of our time. That preservation of cultural heritage, as well as other patterns of access and use, will be carried out through the electronic instruments we are currently making. The self-conscious awareness of the substantive significance of that task is essential to making a place for this work within many still-resistant and dismissive realms of academe where, to use McCarty's apt phrase, many contemporary scholar-teachers regard the computer as a "knowledge jukebox" that simply plays whatever text or artifact they google on the screen. The habituation to ease of access has blinded the academic community to the basic mediating activity of computing as an act of modeling and representing knowledge. The most naïve assumptions of vehicular attitudes towards digital media as transparent — and of works of culture as self-evident — have heaped disdain on these activities among practitioners in many traditional academic departments. As I write this, I mark significant changes in the way digital humanities fits within the framework of institutional support and priorities here at UVa. This is both a sign of maturation, the end of an initial phase of explorative innovation, and a cautionary tale from which some sad but important lessons might be learned.

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But the shape of knowledge as we will know it is being modeled in digital environments and instruments. The tools for understanding the interpretive force of choices made in structuring these environments will come from every field of critical, cultural, media, and visual studies. But only for those sensitive to the basic condition of all knowledge as mediated representation. You would think that would include all humanist scholars, as well as administrators — wouldn't you? That it doesn't shows how far we have to go with the crucial social tasks ahead — to make the arguments within the culture of academia that will make clear to the current and next generation of humanists the extent to which the mediated condition of all knowledge is now shifted into digital frames — and that any humanist encounter with such knowledge has to begin with a critical understanding of how the very modeling on which artifacts appear to us in digital form works to constitute the objects of our collective inquiry. The first step of the *via negativa* will be Digital Media Studies, Understanding Digital Media, or Humanities Computing 101.

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Are there things that McCarty's book doesn't do? Of course. But as digital humanities continues to grow, this work will be among those that further reflection and inquiry, providing a solid foundation of argument for the legitimacy of the field and rich detail as to how and why that legitimacy has the historical shape that it does.

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Works Cited

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