The Techno-Humanist Interaction

With the increasing prominence of Web 2.0 tools, cloud computing, and high-performance graphics processing, emergent technologies influence all aspects of pedagogical and scholarly endeavors. As such, communication between humanists and technologists is crucial: humanists must stay technologically relevant in their mission to engage the “ongoing life of culture,” and technologists need an ethical component to inform and shape their endeavors. Yet the interaction between the two camps can be problematic at best. Never was this more apparent than at a workshop that brought supercomputing scientists together with humanities scholars. The former group wondered how to manage data, whereas the latter group asked: “Exactly what constitutes a datum?” Although it might be hyperbolic to claim that the two groups were speaking different languages, they were close to speaking different dialects, and the communication throughout the weeklong event suffered. These discursive problems, in turn, hampered the collaborative work of the two groups. Yet in our current cultural moment, a time characterized by sweeping technological change, the techno-humanist interaction is key. While technologists imagine what could be, humanists imagine what should be. There are choices to be made. Humanists can supply an ethical, historical, and activist slant to technological innovation, but these alliances demand carefully considered practices if they are to result in productive collaboration.

Certainly some of the obstacles to a techno-humanist collaboration are institutional in nature. Jerome McGann argues that digital library applications are often provided by commercial vendors “without effective scholarly input at the design stage, or later at the use end where these materials might be—from a scholar’s point of view should be—augmented and repurposed.” On the other side of the coin, Meg Stewart, an academic technologist specializing in geospatial technologies, notes that educational technologists are sequestered from academic disciplines in central computing groups, where they are left out of course planning and research studies for which they could offer valuable input. McGann suggests quotas for placing technologists into academic departments; Stewart says simply: “I think the academic structure should be hacked.”

New academic structures are budding with the rise of the “digital humanities” and “unconferences” such as THATCamp (http://thatcamp.org) are important efforts toward this goal. Moreover, the value of consortia and associations such as EDUCAUSE, the New Media Consortium, HASTAC (Humanities, Arts, Science, and Technology Advanced Collaboratory), and ICHASS (Institute for Computing in the Humanities, Arts, and Social Science) simply cannot be overstated. However, once humanists and technologists find themselves in the same room—virtual or otherwise—they must do a better job of collaborating. They must be sure that the precious time spent together is most effective, creative, and innovative. A productive techno-humanist interaction in three areas—shared language, video databases, and fair use—can advance the mission of higher education.

**Area One: Shared Language**

The importance of linguistic understanding and agreement cannot be emphasized enough, since miscommunication can actually prevent action. Indeed, the authors of a recent *EDUCAUSE Review* article list the first challenge of cloud computing adoption as “uncertain definitions,” since the term *cloud computing* “means different things to different IT professionals and to different institutions.” When IT professionals expand their conversations to include humanities faculty, these challenges amplify. A recent study on knowledge workers and collaboration indicates that “at least 20 percent and as much as 50 percent of collaborative activity results in wasted effort.” Chief among the reasons for the waste? Miscommunication. We need a method for nurturing productive interaction between the two camps—an approach beginning in word and ending in action. Borrowing from poststructuralist theory, I suggest the concept of *speaking like a foreigner in one’s own tongue*. In this way, we look at our use of language from a fresh perspective, examine buzzwords whose overuse may have drained them of meaning in our own fields even as they breed confusion among those of other disciplines, and commence a conversation that is mutually informative and beneficial. Forced to clarify our terms, we justify them to our interlocutors, and in the process, we either reinforce or challenge our own assumptions, as well as the practices they inform. When we speak like a foreigner in our own language, we also remove the stigma associated with ignorance of specialized terms, since we start from ground zero. Once we establish a shared lexicon, contingent though it may be, productive collaboration can proceed.

**Area Two: Video Databases**

Digital technologies are extremely amenable to video. This may seem like a painfully obvious statement in the age of YouTube, but academic cyberinfrastructure has not kept pace. In this column
last year, Holly Willis enumerated the promises and limitations of scholarly video production, calling for sustained attention to its media specificity. We must also attend to the larger structures for video management—the core architecture for organizing and supporting the huge video data sets that academic institutions generate by filming instruction and academic conferences. For years I have been frustrated by efforts to create a persistent digital portfolio capable of housing copious video-based projects for the purposes of assessment, faculty training, and assignment modeling. The obstacles are technological in nature, for although computer scientists could offer long-term tape storage, they had no system for making these files readily accessible. Preservation is not the issue so much as accessibility; storage resources are vast, but moving these heavy files around a network is problematic.

John Seely Brown recently reflected on the considerable efforts spent in planning cloud computing architecture—efforts that had seemed so full of promise but that were dashed eighteen months later as the introduction of the massive capabilities of graphics processing units (GPUs) “blew up the architecture” of the cloud. Thus, he noted, folks like him are “currently scrambling” for ways to plug GPUs’ highly specialized processors into cloud architecture. I will not pretend that humanists could have anticipated the impediment of the “wide data pass” necessary to “feed multiple processors” through cloud architecture (as JSB described it), but I will say that many humanists have been thinking about the affordances of video for years. Thus, as the technological barriers are removed, we must be prepared to establish indexing methods and tagging protocols to make video useful—informed by the humanist imperative for recognizing the critical ways in which the medium shapes the message.

Area Three: Fair Use

If one of the main jobs of the higher education institution is the production of knowledge, then all constituencies must be concerned with how knowledge is generated from information and shared via emergent technologies. This includes attention to the tenets of fair use and the ways in which copyright law is often obsolete in light of digital media. This situation is exacerbated by the prevalence of video, whose regulation has heretofore been the province of the entertainment industry rather than the university. During his keynote address to the EDUCAUSE 2009 Annual Conference, Larry Lessig registered surprised at the respect that faculty give the law; he noted that law professors show no such regard. Their charge is to examine law, reaffirming the respect that faculty give the law; he noted that law professors tend that this deference to copyright law is not only misplaced but dangerous, and he encouraged the audience: “Stop. Just stop!” Although IT professionals, library scientists, and college/university administrators must concern themselves with compliance, cultural critique is the very business of the humanities. Therefore, humanists can add an activist dimension to any work around copyright and fair use, and can advocate for academic practices consistent with a scholarly mission.

In closing, I reaffirm Anne Balsamo’s argument for exercising the technological imagination. Balsamo maintains: “The real business of technical innovation is not simply the creation of new technological artifacts and solutions, but also, and more importantly the production of culture.” The techno-humanist interaction is an important site for the production of a creatively vibrant and ethically sound 21st-century academic culture.

Notes

1. Jerome McGann describes the work of humanities—granting foundations this way, but I like the phrase as shorthand for the general work of humanists. See Jerome McGann, “Sustainability: The Elephant in the Room,” in Online Humanities Scholarship: The Shape of Things to Come (Connexions, May 8, 2010). <http://cnx.org/content/m34328/latest/>.

2. This summer workshop, “Cyberinfrastructure in the Humanities, Arts and Social Sciences,” was convened at the San Diego Supercomputing Center by the University of California Humanities Research Institute in 2006.

3. McGann, “Sustainability”


7. This concept is most commonly associated with the work of Jacques Derrida and Giles Deleuze, for the purposes of cultural critique.


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