

## **Introduction**

Johanna Drucker is the inaugural Martin and Bernard Breslauer Professor of Bibliography in the Department of Information Studies at the Graduate School of Education and Information Studies (GSE&IS) at the University of California, Los Angeles (UCLA). She is an influential book artist, poet and visual theorist. Her scholarly work ranges from alphabet historiography, to typography, graphic design, and digital humanities. Libraries and special collections around the world have collected her books. In 2012 she celebrated four decades of creating books, visual projects and graphic art with the retrospective, “Druckworks: 40 Years of Books and Projects,” which was exhibited at the Columbia College Center for Book and Paper Arts and now at the San Francisco Center for the Book until August 2013. At UCLA since 2008, Professor Drucker is a faculty advisor for *InterActions* and teaches courses ranging from history of the book and print technologies, to information visualization, and digital humanities.

This spring, Jennifer Berdan interviewed Professor Drucker about her newest collaboratively written book, the digital humanities certificate program at UCLA, and the past and future of digital humanities in the academy. *Digital Humanities* was published in November of 2012 and is coauthored by Anne Burdick, Johanna Drucker, Peter Lunenfeld, Todd Presner, and Jeffrey Schnapp. An Open Access Edition through the MIT Press website: <http://mitpress.mit.edu/books/digitalhumanities-0>. This provocative and insightful book answers the burning question, “What is digital humanities?” and examines nontraditional modes of humanistic scholarship. The book provides interventions, case studies, and guidelines for evaluating digital scholarship projects and programs. In addition to the new book, Berdan and Drucker discussed how digital humanities currently exists at UCLA with the new certificate program, and how it relates to the mission of *InterActions* and GSE&IS. The interview has been clustered into a range of themes, from *Digital Humanities* the book as it relates to this emerging field, to digital humanities and academia, to student experiences, and potential prospects for method and inquiry. Professor Drucker’s interview provides insight into the critical approaches of digital humanities (DH) and its future in the academy.

## **About the Interviewer**

Jennifer Berdan is a doctoral student in Higher Education and Organizational Change at UCLA’s Graduate School of Education and Information Studies. She is also in the Digital Humanities graduate certificate program through UCLA’s Center for Digital Humanities. Her research interests are in higher education,

faculty, organizational change, open access and digital scholarship. Through her studies in digital humanities she has worked on creating a geo-spatial and temporal map showing the history of women in higher education institutions in the United States and researched faculty engagement in digital scholarship.

### **Digital Humanities and *Digital\_Humanities***

*JB: What is Digital Humanities? Can you describe broadly Digital Humanities for those unfamiliar with DH?*

JD: Digital Humanities is work done at the intersection of computational technology and the humanities. That means that we use a whole suite of methods, tools, and techniques that make humanities materials available to digital processing. These include text analysis, data mining, databases, metadata, geo-spatial encoding, virtual world building, network analysis, information visualization, interface design, and imaging, among other approaches. Most of these techniques come from the empirical sciences, statistics, or business applications and have been adopted for use in the humanities. They require structured or formalized presentations of materials (documents, images, sound) in digital formats, which means migrating analogue artifacts into a digital format. This, of course, changes the materials. The mantra of 1990s Digital Humanities was that it required “making explicit everything we, as humanists, have long left implicit.” In other words, our interpretative approaches were subject to rule-making if we were going to be able to write algorithms or programs to work with humanities materials in digital formats. Many issues arise from these intersections and much remains to be done if we are to imagine the future from a humanistic perspective.

*JB: Who engages in this work? What disciplines are currently engaging in digital humanities?*

JD: Text-based scholarship in literary and linguistic computing came first—because it is relatively easy to migrate alpha-numeric notation into digital files using a keyboard. Remediation (a term used to describe the transfer of information from one medium to another) of images or sound compromises the original much more dramatically. Also, in the early decades, storage and processing speeds were an obstacle to image processing. That has changed, but detecting significant features in images is still a challenge for human perception, and so creating rules that computers can understand will be awhile. We are more and more interested in how our understanding of cognition and interpretation are changed by our encounter with computational methods. While humanists have

engaged in these activities, the world of professional librarians, museum informatics, curators, data managers, and all those people for whom automated systems of access, search, processing, and preservation are their daily work have been involved at a much greater scale. Only a small percentage of humanists are actively involved, and many came from Classics, Medieval Studies, and fields where the intellectual property issues are easier to manage than in modern and contemporary fields.

*JB: Congratulations on your new collaboratively written book, Digital\_Humanities. Please tell us about this project. Can you describe the collaborative process for creating the book?*

JD: We had decided to undertake the project about the time we connected for an event at Harvard, a panel on Digital Humanities, and we spent two days in a marathon brainstorming session. We put every idea we had on paper, let topics and organization emerge from the planning, and went away with a working outline and assignments for each of us to draft some part of the book. Then we sent the texts through a “round robin” so we could each add, edit, subtract. We had a few guiding principles, mainly that each of us should feel that anything in the book was something we’d be comfortable defending, if asked to, and also, that no part of the book should “belong” to any one of us individually. We found the process very productive and generative, and it went quickly.

*JB: What does the underscore (\_) in the title represent?*

JD: The underscore is to make the title “machine readable” by eliminating spaces. We were trying to signal its “digital” identity without being too tricky.

*JB: The book argues for ways of evaluating digital scholarship and engages with a list of “provocations,” can you describe some of the things you and the other authors argue for?*

JD: We are suggesting that in addition to the fact that digital humanities will be more and more integrated into our daily work, we are calling for the imaginative production of new ways of thinking about editing, curating, teaching, and doing research. The idea of the augmented edition, for instance, is almost already commonplace—that a text includes all kind of additional materials, resources, links and dimensions of support or related documents that a print text could not. But we stressed design in our arguments because we are all, for different reasons, linked to that discipline and to its promise as a field of knowledge creation. We believe that making is thinking and that only by thinking differently about how we move through, make use of, organize and encounter humanities materials will

we begin to see the shape of new arguments in this medium. So far, a great many digital projects are still building with old concepts—the page, chapter, linear narrative.

*JB: What audience are you trying to reach and what overarching message are you trying to send them?*

JD: We wanted to offer an easy introduction to graduate students, deans, faculty—anyone who is wondering “what is digital humanities?” The phrase is very much in the air, but for many, it is puzzling. The message was that this is the future, we need to train students to do it, train administrators to assess and support it, and encourage standards and practices but also innovation.

### **Digital Humanities and Academia**

*JB: How has Digital Humanities developed over the years since it first began as Humanities Computing? Do you still consider it an emerging field?*

JD: Digital humanities, strictly speaking, began with the work of Roberto Busa in the late 1940s, early 1950s. Busa was studying the writings of Thomas Aquinas, trying to understand certain concepts (like “interiority”) by tracking every instance of words related to the ideas. Thomas Watson, head of IBM, realized this process could be automated with computer-aided text search. At that time, only mainframe computers existed, and all work was done with punch cards, but the principle of automating humanistic work took hold. What Busa realized, in that conversation with Watson, was that texts could be made tractable to computational processing. That realization is more profound than the enormous impact of digitization through scanning or repository building or migration from analog to digital—because the ability to perform digital analysis of any kind depends on information being encoded. Linguistic computing led the way for humanists for this reason. Visual and audio materials required too much bandwidth and storage to be readily manipulated and the digital code was far from the original analog format, or, to put it another way, was radically remediated. As the internet came into being, and the web, and the graphical user interface, expectations about access to visual and audio materials grew, and with them, capacities for access to born digital as well as migrated materials. The challenges to humanists were to build systems of interpretation, access, display, and comparison for study and research. The early days of repository development have resulted in massive amounts of material available online. Now the challenges are in how to use these materials in a meaningful and substantive way. So, most of what is called the “spatial turn” or “visual turn” in DH is actually

about analysis of computationally tractable material in combination with what can be gotten from data mining and metadata. Structured and unstructured “data” offer different opportunities for these kinds of analyses. So yes, still emerging, and with some really interesting areas for research ahead.

*JB: How are higher education institutions adopting Digital Humanities (e.g., labs, departments, degrees)?*

JD: All of these, of course, are coming into being. In some ways we will simply all be doing much of our work digitally, but training in understanding the relations between critical, conceptual, and technical methods is crucial for thinking in these media and environments. Labs make good sense, since building capacity and shared knowledge is essential, and teamwork is needed for almost any digital project. But departments? Probably not a good way to go for digital humanities. It is not really a discipline, but a set of competencies and methods. Others may disagree, but at UCLA we want to keep our programs linked to other majors by making the undergrad degree a minor and the graduate degree a certificate—that means DH is always an add-on, extra, not a field in its own right.

*JB: UCLA’s Center for Digital Humanities has a new undergraduate minor and graduate certificate program. What has it been like developing these new digital humanities programs here on campus?*

JD: Great. We have a terrific community here, colleagues with varied expertise and real commitment. Todd Presner has been pushing all of this for a long time, and the Dean of the Humanities Division, David Schaberg, has been incredibly supportive, providing resources and backing. We have some work ahead still, and to scale our classes and build a strong cohort of faculty who can free up time for the program from their other commitments is always going to be a challenge.

*JB: What makes Digital Humanities significant in academia at this moment? What makes it controversial in academic circles?*

JD: Controversies come from misunderstandings, a sense that this is all about technology, and that it is a resource drain at a time of scarcity. But I see DH as a way to create distributed networks for participation in work in the humanities. Also, in the battle for cultural authority, the need for humanistic approaches—those that value human beings, and, ironically, post-human thinking—is essential if we are going to overturn some of the ways positivist and empirical approaches dominate. For me, this is essential, because humanistic approaches challenge some of the strategies on which judgments about policy, resources, significant cultural decisions, are all made.

*JB: What are the difficulties in challenging academic traditions and norms with new and innovative methods of scholarship?*

JD: Unfamiliarity breeds hostility, for one thing, and even within the DH community, for instance, my own constant push against the wholesale adoption of mechanistic and literal modes of visualization has met with resistance. Every time I introduce the concept of non-representational geography into our spatial mappings, I feel a chill. But why? The idea is not so complicated—it is simply that spatial experience constructs spaces, and that we should be able to model and show this process rather than plopping pins into pre-existing maps. But the ideas of non-representational thinking are counter intuitive to a Cartesian mindset, and so the whole notion gets shrugged off. Now, that’s an extreme example, but even very mundane problems like creating data structures, which are fundamentally interpretative, are often misunderstood as mere mechanical tasks.

*JB: InterActions has a critical and social justice mission. How does the way DH transforms publications and access promote critical inquiry and social justice?*

JD: One area of DH has an explicit “public data” mission, trying to do activist work with communities around access and use. But also, the area of DH that is concerned with using critical theory to analyze digital media and expose its ideological underpinnings is part of the educational imperative to unmask the workings of power through what are too-often invisible means. Questions about access and what is meant by “open” data – the kinds of issues our PhD student Morgan Currie is formulating—are also very important and have implications for real world issues. So that’s one good example.

*JB: How does Digital Humanities intersect Information Studies and Education?*

JD: Much of Information Studies is fully relevant to DH, so almost all of our classes could be part of the DH minor and/or certificate. I think the design of much of education and information work ahead is going to require knowledge of digital skills, platforms, and concepts. We have to think about distributed, flipped, combined approaches that use digital as well as analogue materials. How can we do that without understanding these media? We have to be able to think in and through digital environments.

### **Digital Humanities and Students**

*JB: How are aspects of Digital Humanities incorporated into instruction and classroom learning?*

JD: In DH we use lab spaces, exercises, and activities. Outside of explicit DH courses, the use of digitally accessed materials is so rampant that it seems irresponsible for us not to require a digital fluency class for all our students.

*JB: How can/does Digital Humanities attract a generation of tech savvy college students to traditional humanities fields?*

JD: Yes, we can hope for that, and for the opposite as well—that we can make a generation of humanistically savvy college students into technically sophisticated knowledge workers, designers, and citizens.

*JB: How does DH create new possibilities for the critical studies of texts? How does it enable students and scholars to be critical?*

JD: Access to multiple versions and copies of documents promotes comparative study in the most classic, biblically exegetical, scholarly mode. That is a primary aspect of critical studies, as is the basic principle of difference—the realization that nothing is the same as anything else even itself. So, access was one move in that direction. Newer approaches that use analytic techniques, such as natural language processing of larger digital corpora to create “distant reading” at a scale different from that of human reading, are changing the ways we understand texts. As Ursula Heise said in a meeting last week, this shifts our questions, so we are not just asking “why” and “how” questions in our research, but also “what” constitutes the object of humanistic inquiry.

### **Digital Humanities and Looking Forward**

*JB: We often hear of sustainability being an issue for digital projects, how does sustainability affect the field of Digital Humanities?*

JD: We have to figure out how to preserve the structure of argument, not just files, and to do that we need to have ways of thinking about preserving access to ways files are played and displayed, in short, processed, if they are going to be available years hence. A huge challenge.

*JB: In times of economic hardship, higher education is often hit with budget cuts as we have seen in recent years. With DH intersecting humanities (a field that has been targeted by budget cuts) and technology (a field that is often supplemented by outside funding and support), how do you think DH weathers such budget crises?*

JD: Some administrators imagine DH will be a big money maker—grants and outside funding in this area outstrip that of traditional humanities. I don't think that is sustainable. But changes to higher education are going to take many forms in the next few years and decades. I guess I believe DH has a substantive role to play in shaping education, knowledge, and our future engagement with humanistic legacy and culture.

*JB: How do you see digital humanities continuing to evolve in the future? And, in what ways does DH still need to be developed, refined, and/or expanded?*

JD: We still need to push harder to get humanistic method into the digital humanities. Where empirical and positivist models of knowledge are grounded in the belief that knowledge is observer independent, humanistic approaches are based in observer-dependent models of interpretative, embodied, historically and culturally produced approaches. We do not have good techniques yet for modeling interpretation, for getting hold of it as a method and as a constitutive force. How do you show ambiguity and uncertainty? Contradiction? How do you model the interpretative effect that produces the object of inquiry from a particular point of view? Those are challenges for the digital humanities that arise from within humanistic and post-humanistic approaches to knowledge.

*JB: Thank you so much for sharing with us! Is there anything else you would like to add?*

JD: I'm a humanist in a post-humanist world, one in which many of the premises on which the fundamental distinctions that created human/animal, natural/cultural, animate/inanimate binaries are exposed as constructions that can't be sustained or supported in traditional ways. But within these realizations, the recognition of what constitutes human experience—with its flaws, foibles, responsibilities, possibilities—still registers, still matters. If digital humanities has any capacity to extend our engagement with the basic questions of it means to be human, then it has a crucial role to play in every aspect of information studies, education, and the broader inquiries and roles of the university. I'm committed to believing in the possibility of a future in which all the many dimensions of human experience can continue to thrive. While in many ways, digital humanities is focused on the preservation and creation of cultural materials. It is also motivated by the need to foster the values that are the foundations of a just and equitable society. Thanks for asking me to do this.