# Teaching and the Digital Humanities

On April 2, 2015, at Emory University in Atlanta, Georgia, **William G. Thomas III** (Angle Chair in the Humanities and Professor of History, University of Nebraska–Lincoln), **Anne Cong-Huyen** (Digital Scholar, Whittier College), **Angel David Nieves** (Associate Professor of Africana Studies, Hamilton College), and **Jessica Marie Johnson** (Assistant Professor of History, Michigan State University) engaged in a panel discussion on pedagogy in undergraduate digital humanities classrooms. The discussion, which was presented in collaboration with Emory University, was moderated by **Erika Farr** (Head of Digital Archives, Manuscript, Archives, and Rare Book Library [MARBL], Emory University). **Stephen G. Nichols** (James M. Beall Professor Emeritus of French and Humanities, Johns Hopkins University) and **G. Wayne Clough** (former Secretary, Smithsonian Institution; President Emeritus, Georgia Institute of Technology) provided national perspectives as respondents to the panel. **Jonathan F. Fanton** (President, American Academy) and **James W. Wagner** (President, Emory University) provided opening and closing remarks. The following is an edited transcript of the discussion.



## William G. Thomas III

*William G. Thomas III is the Angle Chair in the Humanities and Professor of History at the University of Nebraska–Lincoln.*

The ways in which we teach and learn will change with the increased use of digital technologies in our classrooms, in our labs, and especially in the humanities. All of us on this panel have experimented in our courses with widely varying approaches to digital pedagogy, encompassing a very broad range of activities: teaching students to interact with large data sets, teaching students to navigate and manipulate information repositories, and teaching students to use digital tools to ask new questions in the humanities, to name a few. We can imagine students in courses doing rapid prototyping of scholarship in the digital medium, investigating digital culture and society, and using social media to engage with new audiences. Digital pedagogy does not necessarily occur because a course is online: much online teaching is quite traditional in its pedagogical approach and uses standard lecture formats and memorization as modes of instruction. The irony is that online teaching needs the most help in engaging critical digital pedagogy, especially in the humanities.

Jesse Stommel, a blogger, humanities scholar, and perceptive critic of media, has called critical digital pedagogy a practice that "demands that open and networked educational environments must not be merely repositories of content. They must be

**Central to the future of the humanities and, indeed, to the future of the liberal arts and sciences is developing students as producers in the digital medium, rather than only as consumers of digital content.**

platforms for engaging students and teachers as full agents of their own learning."

One aspect of digital pedagogy that will be central to the future of the humanities and, indeed, to the future of the liberal arts and sciences is developing students as producers in the digital medium, rather than only as consumers of digital content. To be producers in the digital medium, students need first and foremost an understanding of how the medium operates, what it does and does not afford. Digital narratives scholar Janet Murray's work in this area on the "affordances," as she calls them, of the digital medium is inspiring. In fact, I use her "affordance grid" of four characteristics as a beginning point, an essential guide to enable students to think critically about the nature of the digital medium: it is *procedural*, *spatial*, *encyclopedic*, and *participatory*. Murray's first book on narrative in cyberspace, *Hamlet on the Holodeck* (1998), provided much of the foundation for my initial engagement with teaching students to be

producers in the digital medium. Here are three brief examples from my teaching in which students are engaged as producers working in a critical fashion with and in the digital medium.

In academic year 1997–1998, historian and now-president of the University of Richmond Ed Ayers and I received a Teaching with Technology fellowship at the University of Virginia's Teaching Resource Center to develop further the Valley of the Shadow project, which was a large-scale, collaborative research initiative for many years at the University of Virginia.

Ed and I taught a series of digital history seminars to explore what historical scholarship and scholarly communication would look like and what it could do in cyberspace. We literally asked our students what history might look like in the digital medium, what affordances historians should pay attention to, exploit, or design around. Students worked for a semester in teams of four on interpretive projects that would be added to the Valley of the Shadow project as standalone websites, and at the end of the semester, they gave a public demonstration to an open audience at the University of Virginia. One outcome was that – before blogs, before wikis, before Google – students were sharing and publishing their work online, and the public nature of the presentation altered the terms of their engagement with their work significantly. This experience highlighted what I expect will be a major theme of this panel: our students need to be working in the open web rather than in contained content- or learning-management systems, such as Blackboard.

One team produced a project on the U.S. Colored Troops that was the most scholarly, definitive, and well-designed site on the subject for about five years. This was an undergraduate project that received considerable traffic and email correspondence beyond the semester of the course, and the

student team continued to manage and cultivate the site years after the course ended. The sixteen-week course became a kind of transitional, porous engagement in which students long after remained responsible for and committed to an ongoing interactive engagement in the digital medium.

The second example is a project created at the University of Nebraska called the History Harvest. The main aim of this project is to engage students in making history by working directly on the creation of digital resources that document the history of their community. It's an experiential course in which students organize and manage a public, digital, community "history harvest." Students invite local people to share their historical artifacts and their stories for inclusion in a unique digital archive. In this way, students create the possibility and digital space for a more diverse, inclusive, and democratic narrative of American history.

These resources build upon themselves and have been made available for further teaching, use, and research. Schools around the United States – in Texas, Florida, Virginia, Indiana, and Minnesota – are developing courses modeled after History Harvest. Students see their work as public, community-oriented, and part of a larger ongoing endeavor. Students in the History Harvest become producers in the digital medium, rather than consumers of digital content.

A third example: an NEH-funded research collaborative between the University of Nebraska and the University of Maryland focused on slavery and freedom in early Washington, D.C., using original files of D.C. circuit court cases, including hundreds of petitions for freedom by enslaved people between 1800 and 1862. As with the Valley project, students are making generative contributions to the project. In this work, students have also made invaluable contributions by marking up and encoding parts of the project. They are contributing to the

research and writing of Wikipedia entries about important petitions for freedom that are virtually unknown to the wider public.

One final point in closing: several historians who attended presentations of the slavery and freedom project at the American Historical Association convention have asked to participate in it. This has laid the foundation for cross-institutional collaboration that will allow students as well as faculty at other institutions to participate in this major research initiative.

And this sort of cross-institutional collaboration based in digital pedagogy offers an exciting model of generative digital research to which undergraduate students make a significant contribution. The questions students begin asking about encoding are really about typology: what do you do with a residence that is unclear, or a relationship that exists but is not clearly stated? These are very helpful sorts of questions to prompt students' historical thinking.

We have opportunities to reimagine our teaching and learning in the digital medium. So, my message today is to encourage student work in the open web, to encourage critical digital pedagogy, and to engage students as producers in the digital medium.

## Through the digital humanities, we are trying to bring experimentation, play, openness, collaboration, and diversity in form to classes in all different disciplines.

## Anne Cong-Huyen

*Anne Cong-Huyen is the Digital Scholar at Whittier College.*

I am the co-coordinator of the Digital Liberal Arts Center at Whittier College, a small, private liberal arts college in the Quaker tradition (now secular). We have about 1,700 undergraduate students, and 60 percent of our enrollees are students of color. We are a Title V Hispanic-Serving Institution, and many of our students are first generation and working class. Our program answers one of the criticisms of the digital humanities: that too many programs and centers are located in large research institutions.

We call ourselves the Digital Liberal Arts Center – not a digital humanities center – and, in an effort to make ourselves as inclusive as possible given the collaboration and porousness within our curriculum, I am working with faculty members from the natural and social sciences, mathematics, fine arts, and theater (disciplines that might be siloed at larger institutions) to bring the ethos of the digital humanities into classrooms across our campus. That means we

are trying to bring experimentation, play, openness, collaboration, and diversity in form to classes in all different disciplines.

Now, entering the second year of a generous Mellon grant, we have a broad definition of what it means to be digital and technological (for example, recognizing pens and pencils as tools). Our goals are to increase student engagement, to produce more public-facing work, and to show responsibility to the community in the Quaker tradition. We want our students to take ownership of their work and pride in what they have accomplished – things we sometimes don't see them doing when they turn in traditional papers to their faculty members.

We've been offering small grants to faculty to entice them to come out and join us. We are working with faculty one-on-one to think of ways that they can transform their classes to be more digitally inclined or to include digital assignments and activities. So we're exploring ways that we can help faculty to design digital assignments: from small infographics that students can make public and publish on the web, to larger semester-long projects such as digital sustainability plans. This is happening in ethnic and gender studies, environmental sciences, and mathematics courses – none of which have the words *digital humanities* in the course title. (This is my first year on the job so we're learning a lot!) We are doing much of this on a very small scale. As a small school with very limited resources, we have become a teaching resource center. It's not about trying to get our colleagues to jump on the digital humanities bandwagon, so much as finding innovative ways for us to become

better teachers. What we have emphasized, rather than simply using new digital tools, is the importance of good rigorous teaching, of digital literacy, and of interrogating our relationships with the digital.

Before I started at Whittier, I taught at much larger public institutions – UCLA and UCSB – and I would like to share a project that students of mine built there. One thing that was vitally important with our demographic of students was that we wanted them to become engaged digital citizens. Many were already consuming digital media, but we wanted them to be producing it, to be working in digital platforms very critically and also to be aware of the communities in which they live and work. To this end, my former students at UCLA, in a course about the racialization of Los Angeles, created a digital book in the Scalar publishing platform.

As part of this project, students learned about the history and politics of publishing. I asked them to think about what it means to produce a digital book that anyone can access. An important detail about building digital assignments is that you want to scaffold larger projects with smaller assignments so that students learn the technical skills in small stages while they are also developing their critical analysis, research, and writing skills. These students, for example, were asked to go into different ethnic enclaves in Los Angeles and produce urban ethnographies of those communities: they took public transportation to get there, spent time in the space, and then documented their experiences to produce a digital book (http://scalar.usc.edu/works/ethnic-los-angeles/

index). Many students at UCLA spend most of their time on the West Side and don't travel too far outside of Westwood, so this was an important experience for them. This was an opportunity for them to counter and rewrite a representation of a city that they thought they were already familiar with. It was proof that undergraduate students can do high-level, original scholarly research if we provide them with innovative, interdisciplinary digital methodologies and analytic frameworks.



## Angel David Nieves

*Angel David Nieves is Associate Professor of Africana Studies at Hamilton College.*

When we first began teaching our introduction to digital humanities in the fall of 2012, we had only nine students in the classroom. In the third year of teaching the course, we now have twenty-nine students working to develop a series of collaborative, scalable projects. This effort not only demands mastery of the classic research paper's primary and secondary sources, archival research, and formatting, including footnotes and bibliography; but as a digital humanities exercise, it also incorporates other forms of critical media including music, video, still image, and graphic design. For example, an English class examining aspects of the twentieth-century novel can go beyond lecture or even Socratic dialogue and now do something much more complex, creating not just a research paper that appears online, but a research "paper" in a platform like Scalar that can move into understanding a novel's translations, its film adaptation, a video interview with the novel's author, fragments from the film adapta-

tion's score, or textual analysis; and it can introduce other lecturers to provide insight into extradisciplinary research through the use of blogs, wikis, Skype, and Twitter.

In a 2012 article in *Digital Humanities Quarterly* entitled "Envisioning the Digital Humanities," information technology and humanities scholar Patrik Svensson details the ways in which digital humanities have often become a kind of laboratory for thinking through the current state of pedagogy and the future of the humanities as a whole. Svensson draws some important parallels in the growth of digital humanities with the establishment of Asian American studies in the 1980s. The core values of "a predominantly textual orientation and a focus on technology as tool embedded in the digital humanities," have in many ways relegated digital humanities to two centers at most research institutions: the English and history departments. For scholars like me who have leveraged the expertise and political capital of their peers to build a home for digital humanities, it's also very clear that in order to remain at the cutting edge of the field, we must situate ourselves also in the interdisciplinary fields of Africana studies, women's and gender studies, as well as American studies. I can already see parallels between what Svensson has argued in his piece with the radical transformations that many of us helped to bring about in academia in the 1980s and 1990s, and even well before that. The margins – area studies, identity studies, interdisciplinary studies – have become more central to standard practice with the advent of the digital humanities.

I am currently codirecting an Andrew W. Mellon Foundation–funded initiative to jump start the digital humanities at Hamilton College. We have also received support from the Office of Digital Humanities at the NEH to institutionalize digital scholarship, research, and teaching at Hamilton.

The Digital Humanities Initiative (DHI) is a research and teaching collaboration in which new media and computing technologies are used to promote humanities-based research, scholarship, and teaching, including curriculum development across the liberal arts. My partnership with Janet Simons from Library and Information Technology Services (LITS) was the first between a

itory for digital collections whose scalability and extreme flexibility in the manner in which objects can be accessed in the long term has helped define industry best practices. Our collections software also offers flexibility for the creation and maintenance of the relationships between objects and across digital collections. Metadata schemas for digital collections are developed in

respective fields. Assistance with job placement in a professional field based on their CLASS internship is an important feature of their final year at Hamilton.

My own work in South Africa has largely looked at the ways in which we might begin to engage with 3D historical reconstructions and has promoted efforts to reclaim social justice narratives of the apartheid era. This effort would not have been possible had it not been for the work that we have been doing with students to visualize and create 3D environments and models. We are developing a platform through which we can embed primary archival materials in a 3D world to recreate scenes from the apartheid era so that students can engage with lost or hidden history that tourism in South Africa has since displaced. Through the DHI, the prospect of twenty-first century interdisciplinarity may well be made real, and the promise of a "new renaissance scholar" with mastery in many disciplines may become increasingly commonplace.

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faculty member and an administrator to cut across multiple units: namely, ITS, the dean of faculty, and the library. We work to unite faculty research goals with technology and library science resources to build upon Hamilton's significant strength in teaching and research. We also work to emphasize the interdisciplinary nature of humanities research, incorporating undergraduate students as scholarly partners in significant original research projects.

The DHI has helped to create and develop a new humanities environment at Hamilton, one in which faculty research projects enrich the undergraduate experience through collaborative investigation in the pursuit of understanding and querying our cultural heritage. The DHI's technology infrastructure and research support models are designed to be innovative and sustainable. This approach reduces, for example, the need for regular revamping of static faculty research web pages by creating mechanisms that maintain research outcomes as living web presences showcasing faculty and student collaborative scholarship. The DHI has developed an institutional repos-

collaboration with faculty research directors and students to promote the richest possible exploration and discovery for digital scholarship. We're all getting our hands dirty with metadata, and we love it.

None of these multiyear collaborations would have been possible without two of our core curricular efforts: first, the creation of an undergraduate minor in cinema and media studies; and second, through our comprehensive undergraduate research program entitled "CLASS," the effort to remove the confines of the semester schedule to promote students' deep understanding of digital humanities research within a specific field over the long term. In these experiences, students and the faculty advisor become part of a collaborative working team of experts in the DHI. CLASS provides students with training in digital literacies through intensive research and scholarship coupled with unique internship experiences. In the summer between sophomore and junior years, CLASS offers undergraduate students an intensive professional development experience and provides a comprehensive overview of work in their

**There is a fundamental difference in how students approach their research via the written page and how they present their research via screen and code.**

## Jessica Marie Johnson

*Jessica Marie Johnson is Assistant Professor in the Department of History at Michigan State University.*

I teach African American history at Michigan State University, a research institution with a digital humanities center and laboratory. Digital humanities, digital tools, and working in digital, radical, or new media is significantly reshaping how faculty engage with students, just as the technology is reshaping how students engage with faculty. Whether asking undergraduates to work with online databases and materials (similar to Emory's Transatlantic Slave Trade Database), to blog their reflections on and analyses of primary source texts, or to participate in conversations online via Twitter, Facebook, or a range of other social media platforms, faculty and teachers everywhere have a new range of tools for exposing students to new material and introducing them to new ways of thinking about the world. As a historian both of New Orleans and of slavery and the African diaspora, I am especially interested in ways digital tools encourage students to

see the past from a nonlinear perspective. I encourage students to see the past from the perspectives of slaves, and I've found there is a fundamental difference in how students approach their research via the written page and how they present their research via screen and code.

Let me explain: As opposed to a lecture that encourages students to digest and evaluate information presented to them, digital tools can provide students with a cornucopia of informational choices. Students may find themselves exploring an assigned website and researching a digital exhibit, or they may find themselves having discussions about the class with me or with other students on Facebook. As a teacher, I have less control over what they encounter than I ever did before because of the depth and breadth of information available online and the kind of conversations that are already happening there. I may send them down any number of research paths, but these are not definitive, linear journeys. Students can take control of the research process for themselves and ask interesting new questions that we would not have imagined before.

The interface itself – a website, a database, the computer itself – raises questions for all ranges of history, whether the topic is slavery or histories of race, gender, sexuality. American studies, ethnic studies, Africana studies, and women's studies programs can have a special role to play for digital humanities projects. Digital histories of slavery – indeed, all histories of slavery – have been haunted by a struggle over the role slavery should play in how we understand society; it is a tension that is felt in different ways through all places touched by the Atlantic

slave trade. It often comes down to a contest between those struggling to center histories of bondage in national narratives and narratives of international injustice and those who disagree that slavery played a pivotal role in shaping the world that we know.

For example, using Tumblr – which is a bit like a cross between Twitter and Facebook – students can have conversations with each other they might not have had with a professor. And they can have conversations with the screen that they might not have had with me. They can also meet and interact with social media users in the real world, which can make the material being discussed much more real for them.

One of the challenges that I find when using digital humanities or social media in the classroom is an assumption that students (and faculty) are well versed in technology, when that is often not the case. Students have ranges of skills that vary depending on the kind of institution where they study and the topics they choose to study. Many faculty members assume that students want to learn with technology when they often do not. And sometimes students do not want to critically engage with academic issues on Facebook or Twitter or Tumblr; for some students, those sites represent their leisure time, and they would prefer not to blur the boundaries of work and play.

But other students – many of whom are themselves training to become teachers – are particularly interested in how digital tools work. About twenty students in the College of Education at Michigan State who also participate in the History of Education program took a course I designed for their research methods and skills requirement: in

it they learned how to approach, for example, a history of slavery through new (digital and social) media. I created a Tumblr site for their discussions where they could follow along with each other and reply and talk to each other online. They could then bring these experiences with them to class and experiment with how to introduce these online concepts and methods into elementary and high school classrooms. Further, social media sites frequently serve as gateways to more specifically purpose-driven digital tools: for example, my class's interaction Tumblr encouraged one student to create a WordPress site. The student, Kristen Roberts, used a digital archive of Missouri Supreme Court records between 1830 and 1860 to document cases of resistance by enslaved women and then built a timeline of the cases using a digital tool called TimeMapper. In other words, learning how to use digital media can become an exercise that moves a student across platforms like Tumblr to WordPress to TimeMapper – to still greater digital skills and deeper historical understanding.



## Stephen G. Nichols

*Stephen G. Nichols is the James M. Beall Professor Emeritus of French and Humanities at Johns Hopkins University. He was elected a Fellow of the American Academy in 2013.*

The digital humanities are patently exciting to those who are involved with them. What I see as a problem is how many of our colleagues are *not* involved in them, how many do not even begin to understand why they should be involved with them. And it is not necessarily that they think they have to have some degree from MIT in order to get involved, but they think it will be too much work given the kind of preparation they do for their teaching and their research: they have a lot of deadlines, so why add to the list? But at the same time, they frequently justify their resistance by arguing, "The digital humanities do not get students involved – it is all too passive."

This panel, however, has shown that we, in fact, seek student producers, not consumers, of digital materials. And we can make use of digital resources to enable students to become producers: that is the nature of engagement. As others have mentioned,

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through digital resources students could become involved in a historical set of issues in a nonlinear way. We tend to want to present narratives from the beginning with a middle and end – a very good Aristotelian narrative. But as we now know from our reading of contemporary fiction, the notion of a neat narrative that begins and develops and then ends satisfactorily has gone by the wayside. We are used to nonlinearity in our lives, in our books and film, and in our social media, but we have not introduced this to our teaching. How do we capture the attention of contemporary students as they sit in the classroom tweeting?

Further, faculty frequently express concern over how they ought to approach the traditional issue of credentialing – how to judge academic nonlinearity expressed through digital media? Faculty have not yet sensed the seismic shift that has already taken place in the evaluation of the work of digital humanists.

**Despite all of the interesting possibilities, it appears that digital technology has not yet penetrated very far into the traditional classroom. If we are to influence the market, it is critical that we offer resources and support to faculty who want to change.**

## G. Wayne Clough

*G. Wayne Clough is former Secretary of the Smithsonian Institution and President Emeritus of the Georgia Institute of Technology. He was elected a Fellow of the American Academy in 2010.*

I am a passionate supporter of access to higher education and to learning resources, and this applies to resources whether they are found on a university campus, in an archive, in a library, or in a museum. Their assets should be available so all people can benefit, but we live in a time when access is at risk of being diminished because of rising costs and inadequate attention to reaching underserved audiences. This is of concern for reasons related to equality but also to our democratic process that requires an informed electorate. Fortunately, digital technology is a tool that will allow us redress the issues we face.

When I brought the concept of digital learning and digitization to the Smithsonian, I hit a wall fairly quickly with some who thought I was merely talking about people having unlimited access to the collections and using them for purposes that might be seen as frivolous. Personally, I don't think there is anything wrong with people having a bit of fun, but our curators questioned how rigor and informed investigation – which Stephen made an excellent point about – would be built into the use of digital resources. There is no question that if we want to optimize the value in using digital resources we need to build a context for them beyond simple images on a page. There has to be a structure that allows for discovery and growth if we are to make optimal use of the digital technologies that are pervading our lives.

Will spoke about encouraging critical thinking, something our students today too often lack. This has to be part and parcel of the basis for the use of the new approaches to learning. This speaks to a role for mentors and teachers who will always be needed, even in the digital world. Angel used the words *sustainability* and *can-do attitudes*. I think those are very much on target : if you are going to get into the digital enterprise, you cannot think of this as a one-time or short-term initiative. These tools are here to stay and will only become more important to the future. We have to build a framework that will allow us to take advantage of social and historical currency. Current events – for example, natural disasters such as Hurricane Sandy and Hurricane Katrina – can help connect what is happening today with the relevant historical precedent and help expand the depth of the process of discovery.

Anne talked about how digital technology is going to reshape pedagogical approaches. I like that phrase. Too often, in an attempt to get attention, the word associated with changes related to use of digital technology is *transformative*. This word is overused and exaggerates what can and will be done. But *reshap*e – a better and more accurate word – goes much further in thinking about encouraging engagement. There is an opportunity here for institutions not only to improve learning for traditional students but also to engage close-in groups like alumni, as well as to reach a wide array of nontraditional learners. In the case of museums, only 15 percent of people who are called minorities go to museums – so what is the future of museums with demographic change? Digital approaches that could complement traditional exhibitions can be designed to reach groups who might not consider coming in person.

I get the opportunity to lecture at a number of universities, and I often request a separate meeting with students with no faculty present. One of the questions I ask them is how much technology they are using in their classrooms. I am surprised by how often they say that while there is a lot of talk about technology, there is very little real action. Despite all of the interesting possibilities, it appears that digital technology has not yet penetrated very far into the traditional classroom. Will talked about the growing importance of teaching and learning resource centers : I fully agree. If we are to really penetrate the market, it is critical that we offer resources and support to faculty who want to change.

To return to the point that Stephen made about the humanities leading in the use of ditigal learning technologies, I agree this is the case. The humanities present a clearer picture for the average person of how digital technology serves the purpose of research and encourages engagement than does astrophysics, say, in utilizing digital technology to explain the discovery of the latest exoplanet. It is easier for most people to achieve understanding through history and shared human experiences, as provided by the humanities, than it is through examples in the sciences or in engineering.

I would also like to mention my belief that the growing use of digital technologies will break down the long-standing barriers that have been built up between learning institutions. Here I am referring to universities, museums, libraries, and archives. Just because resources of such institutions are typically housed in different buildings and are separated by different cultures, this does not mean it has to remain this way in the future. Once digital resources are housed in the cloud, users will not care too much about the source.

In using digital technologies, the future will belong to those who see the value in collaboration. When I first came to the Smithsonian, I found there was a lack of collaboration not only within the institution itself but also between the Smithsonian and other institutions and universities. We set out with a new strategic plan to change this and have made considerable progress. I am convinced that the national resources found at places like the Smithsonian, the Library of Congress, and the National Archives can be of great value for the types of projects discussed in this forum – but only if we create the collaboratives needed for it to happen.

In envisioning the possibilities, there is one reality check needed. One of the challenges to progress is the scale of the job to digitize the assets of the nation's great national institutions. When I first arrived at the Smithsonian, I was told the collections held some 138 million objects and specimens. That is a lot, but when I spoke with David Ferriero at the National Archives, he told me they had ten billion items. Amazing! To tackle digitizing such large collections, it requires a multipronged approach, using both internal resources and external third party contractors. Constrained federal budgets do not help, but we realize the work must be done regardless. Fortunately, new technologies are speeding up the process; but it will take time, especially to do it right.

Complicating the task is the need for not just a high-resolution digital image, but also its metadata that provides context and allows for a search to locate it. At the Smithsonian, we created a transcription center that allows volunteers to work with us in putting metadata against our objects; and when you have 66,000 bumblebees, 450,000 works of art, and 650,000 baseball cards, you need help. The transcription center concept has proven invaluable in speeding up public access to the Smithsonian collections.

One final note on collaboration: the Smithsonian has established private funding for the creation of an endowment for internships and postdocs supporting young people who can help us in our efforts to create access to our digital resources and to help us learn how better to build our growing partnerships with universities. We recognize that while we have a huge opportunity, we also face a great challenge and will not succeed without casting the largest net possible. We look forward to working with our partners to making the most of what is to come.

## James W. Wagner

*James W. Wagner is President of Emory University. He was elected a Fellow of the American Academy in 2009.*

The digital humanities seem wonderfully powerful for harvesting information and data about art and literature and doing analyses of those. But from the beginning of the panel, Will posed the challenge of how we can better develop digital content producers, rather than content consumers. Where does the state of the art need to advance to achieve this? And does the goal present some particular challenges, or even risks? So please consider the following two questions.

First, the state of the art seems to be most well positioned to transmit information at highly rapid rates – so is there a risk that the pace of information flow could outstrip our ability to convey and appreciate the art of the humanities? None of us read Shakespeare to follow the plot line, and yet, if I am going to contribute snippets and bytes and join the conversation at the speed required

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Second, do we have any concerns about integrity of data? It is frightening that we can launch an avalanche of conversation that gets started by an initial snowball of flawed data. The propensity for that is much higher when we can interact and react so quickly, and we see some of this danger in the role of this technology in news reporting.

The real question, then, is about the composition, contribution, and production of the data. Are there some things we need to pay attention to with current technology (art communication and information integrity, as particular examples) and other things you wish future technology could help us address?

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## Discussion

### William G. Thomas III

Those are truly excellent questions. I would observe that in the field of history, we do not have many examples of compositional, interpretive scholarship in the digital space – examples that are available for peer review and understood widely in the profession as the pinnacle of art, of that achievement of the historian as a storyteller and as a weaver of evidence into a fabric of the past.

If there is something that is unfulfilled in the digital moment, I think you have put your finger on it: the energy has been centered on the building of tools and in the collection and digitization of material. I have tried to build some examples of interpretive work that attempt a representation of the past. We are now at a point of trying to figure out what digital historical scholarship looks like and how it can be evaluated and rated for quality and rigor as well. I agree that we are in a moment when we need to pay attention to these qualities, and I wish that the disciplines would think more carefully about these questions. The American Historical Association has put together a committee, which Ed Ayers is chairing, to look at what digital scholarship is. What does interpretive historical work created at the highest level look like? We are going to have more clarity about what that might be and what we can agree upon in the coming years.

There has been a delay because the disciplines haven't figured this out, and tenure and promotion committees haven't figured this out. It is a very risky operation for young faculty to step forward and create something that they are calling interpretive and "compositional" – as you have put it – digital scholarship. I love that word for this. There are few models of that sort of digital scholarship. Evaluation and definition is a very important next step.

## Anne Cong-Huyen

Quite a few scholars in the digital humanities and the information sciences, people like David Kim, Fiona Barnett, and Johanna Drucker, have addressed the problematics of data: how it is not neutral, how we always have to be questioning and thinking critically about where the information is coming from, who is capturing the data, who is publishing the data, and where it is being published. The humanities are of great importance to our ability to address and read data critically. We are really good at addressing questions of contradiction and recuperating the obscure things that are highlighted in dense data sets.

Collaboration is also important in addressing these concerns. Recently I was at a hackathon on police brutality that UCLA's Information Science graduate students had

put together. They brought together information that was released by the LAPD, but also by the *Los Angeles Times* Homicide Desk, and data compiled by community organizations. They filled gaps found in existing government and local databases through community involvement in mining and analyzing social media data related to these incidents. They made use of social media information operating in concert with publicly available government and local databases to create a clearer representation of the lived realities of communities experiencing police brutality in the United

States. That is just one example of how we can critically look at the avalanche of information.

## Stephen G. Nichols

Many of our colleagues are sitting idly on the bench until they see how the digital art tackles the problem of evaluation. Evaluation runs counter to what we might call the metaphysics of the digital world: speed, size, and everything related to accessing content instantly. Evaluation, on the other hand, is quite the opposite: it is putting the brakes on, it is analyzing, and it is sifting through fine details.

Crowdsourcing has been a major topic of interest and concern for academics, and scholarly journals and research projects are only beginning to approach it. Crowdsourcing is closely linked to that other C-word, collaboration. It involves taking seriously

what anybody who wants to weigh in says. To evaluate an academic article, in the old days, we used to have two people read it. But that was a disaster: one reader would like it, the other would hate it. So we added a third reader, but by then you find yourself involved with the politics of the thing. But having one hundred people or fifty people weigh in on an article creates something more resembling democracy.

I was on the committee for scholarly editions for the Modern Language Association (MLA) when we tried to encourage digital

editions. Briefly, in analog editions – the way that they used to be done – you would have the text, you would have the variants, and the edition would gain a stamp of approval. Digital editions involve much more input, and we sought to give those editions an MLA seal of approval that would help with credentialing the young scholars who were doing this. We managed to modify the traditional means of evaluation, to find people who were willing to look at these digital editions, to review them as scholarship, but all on a digital platform. We modified crowdsourcing so that the "crowd," which includes maybe five or ten people, comprises experts in the field, and they could look at different aspects of the edition.

But that is the elephant in the room: the whole notion of evaluation. We have to deal with it now, before it becomes an impossibility in the near future.

## G. Wayne Clough

We are creating one exabyte – one quintillion bits of information – every week. And what we see in this digital world is a tendency for it to expand, as opposed to converge. And university faculty prefer things to converge. If you are talking about a subject in the digital world, somebody can use Google and say, "I don't think you've got it right," or "here's something else I've always wondered about," and the discussion diverges. There is a diffuseness sometimes around topics when you do digital learning that you do not see when you have only a captive audience and your lecture notes. I don't think we understand yet how that works, and I think it is a very good question.

## Jessica Marie Johnson

Platforms like Blackboard and other closed learning management systems do not interface very well with outside platforms. They

> **Many of our colleagues are sitting idly on the bench until they see how the digital art tackles the problem of evaluation. Evaluation runs counter to what we might call the metaphysics of the digital world: speed, size, and everything related to accessing content instantly.**

also do not interface well with social media or even WordPress. There are technical reasons for that, but it comes down in some ways to what Bill said earlier: there is a difference between digital pedagogy and online teaching. Blackboard gives us a space in which we can post information and share it more readily. We can put PDFs up for class consumption; we can have a message board, but I think that is probably the closest that we get to the kind of improvisational and conversational environment that you have with social media.

Blackboard or other learning management systems represent a closed system, one that still replicates the space of the classroom as a cloistered space. Working with a closed community can be really productive. I have a Tumblr that I run for a black studies class that is password protected. It is meant to be a safe space that can still take advantage of Tumblr's technology and interface, which I find really useful and aesthetically pleasing for students.

But posting in Blackboard is not the same thing as thinking through in a really rigorous and critical way what social media, Tumblr, Twitter – what online engagement on a twenty-four-hour basis in an expanding information environment – does for teaching, does for your interactions with students and interactions with your research and with other faculty.

Perhaps Blackboard is a gateway for faculty to enter into a world of thinking about social and visual media. In the conversation we are having about students as producers and consumers, I think that with social media as pedagogy, students are both consuming and producing. We may charge students with finding ways to produce, but they are also consuming all the time. For example, if I am talking about slavery, they are already talking about the film 12 Years a Slave. If the topic is New Orleans, they already may be having a conversation about Hurricane Katrina. Social media does

require us as teachers to do an extra jump beyond what Blackboard or any learning management system can provide into what works for us in engaging students and taking seriously the ways they are already engaging the world and doing intellectual work.

## Angel David Nieves

The changes that we are seeing in the humanities can be further advanced simply by acknowledging the ways in which top-tier humanities presses have adopted new publishing platforms online. NYU, Harvard, and MIT Press, among others, have adopted these platforms, basically announcing that the heartbeat of the monograph is slowing down. We need to think differently not only about the ways in which our scholarship is produced, but also how it is disseminated. A push and pull from different factions is allowing some of the bleeding-edge, cutting-edge movements to grow, but it is largely unnoticed. I have long wondered why it is that these particular presses, despite their stature, have not had their work acknowledged as cutting-edge. We have talked about evaluation for a long time, but why are we still having those conversations? And why are we talking about older platforms when we have Scalar and numerous advanced platforms on the horizon? There is huge resistance on the part of humanities faculty to understand the silofication of their disciplines. As Kathleen Fitzpatrick has said, we have planned our obsolescence in so many ways, and we have got to find a way out of this.

## James W. Wagner

Thank you for those presentations and responses. I was really struck by the fact that for all of you, the teaching and the thinking and the collaboration now taking place are exciting and innovative, but the actual

technologies that you are employing are not state-of-the-art, cutting-edge technologies. Which is not a criticism; I think that this is the kind of work that we are doing in Domain of One's Own here at Emory. The technology has reached the point now where you do not have to be a tech person to publish and otherwise create content online.

But I am wondering whether that presents its own challenges. Perhaps digital pedagogy is not taken as seriously as some of the other kinds of digital humanities work that is going on – perhaps it has not penetrated deeper into the teaching profession exactly because we are always interested in the technology that is on the bleeding edge and that pushes the state of the art. Perhaps this work is ignored because it has actually been going on for a long time. The assessment of multimodal writing now has a long history; digital dissertations have been written now for the past twenty years; and digital tenure portfolios are not so novel anymore. But maybe some digital tools are not spreading just because they are not brand new. If the ideas and the collaborative potential are interesting, we need to get people to take the work seriously, even if it is no longer technologically innovative. Perhaps in the presence of never-ending change we need patience to let our innovative use of maturing technologies determine the state of the art, helping to ensure that digital technologies enhance what we do in creating and communicating the humanities. ■