
An interview with Professor John Unsworth and Professor Huiling Feng – Panel discussion on digital humanities

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On June 15, 2022, *Digital Transformation and Society* editorial office hosted a worldwide virtual panel discussion. Prof. John Unsworth from the University of Virginia, USA and Prof. Huiling Feng from Renmin University of China, were invited to share their years of studies in digital humanities and grand visions and understandings of digital transformation in society. The panel discussion webinar attracted over 300 attendees from countries and regions around the world. Prof. Robin Qiu, EIC, chaired the webinar. Prof. Lik Hang Tsui from City University of Hong Kong facilitated the interview and discussion. The interview and panel discussion transcripts are as follows.

Professor Tsui Lik Hang:

To kick off today’s dialog, I’d like to pose some initial questions to both of you first. I am curious about your thoughts on the role of digital humanities (DH) in your work. Could you please give us some examples about how DH influences the humanities based on your work and projects?

Professor John Unsworth:

A lot of my work concerning DH has been building what I have considered to be infrastructure. So it includes scholarly journals like *Post-Modern Culture* which Professor Ruan Lian mentioned in my introduction—that is one kind of infrastructure. Other projects in which I have been involved took different forms. For example, I helped to establish the HathiTrust research center. This research center provides computational access to billions of pages of texts from library collections. Only about half of them are written in English. I also worked for about 10 years in a research institute in the University of Virginia, called the Institute for Advanced Technology in the Humanities. Centers like these are another kind of infrastructure to support scholarship and DH. And the library itself is an important infrastructure for scholarship. And there are other digital efforts in the library that are also important infrastructure. For example, *Social Networks in Archival Context* (<https://snaccooperative.org>) is one that may interest Professor Feng. This is a sort of union catalog of archival finding aids that allow you to follow social networks through archival records.

Professor Huiling Feng:

DH concerns the combination of education, practice and academic research. Renmin University of China is involved with the field of DH from all the three aspects mentioned above. We have established a DH research center with about 10 scholars from different 10 disciplines. These scholars have been working on DH projects on the basis of their own disciplinary needs, such as data sets and digital tools. In my school of information resource



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management, we started our work on digital memory about 10 years ago. Digital memory focuses on the historical and cultural phenomena that happened before. In this project, a plenty of digitalization methods have been applied. For example, we had a project of digital memory concerning an ancient village with thousands of years' history in Zhejiang Province, China. This village has a family genealogy totaling 59 volumes of historical records, spanning consecutively over a thousand years. We have conducted digital recognition of all 59 volumes and figured out the connections among them. To develop the knowledge domain map based on those 59 volumes, we have figured out the genealogy and relations among those 41 generations of people in this village. The head of this village was delighted to tell us if his ancestors learned about our work, they would pay their appreciations to us.

We have done a lot of similar studies. For example, we have done much work on digitizing ancient city of Beijing. Through digital modeling, we hope to present the history of 3,000 years of Beijing, which we call it, four-dimensional Beijing. That is, we add another dimension of time beyond the three-dimensional space. Thus, we hope to adopt more DH methods into the implementation of our project.

Professor Tsui Lik Hang:

So, it sounds like both of you are very engaged in building DH infrastructures including journals and foundational projects. Based on all these experiences, how would you evaluate the current state of the digital humanities research and development in your respective communities? We witness it moves into a “mainstream” somehow, and also its institutionalization takes place early in the US and more recently in China. Could you please share with us your look at these processes?

Professor John Unsworth:

This year of 2022 marks the 30th anniversary of the digital humanities at the University of Virginia (UVA). Over the past 30 years, a lot of things have happened in the field. At UVA, digital humanities arose out of textual criticism and book history. In particular, early projects focused on reinventing the scholarly edition—itsself another kind of infrastructure for scholarship. Often these electronic editions called themselves “archives” even though they were not archives in the traditional sense of being the record of a process or organization. They were instead the collected works of writers like Walt Whitman, or William Blake or other writers. Gradually, we became interested in other kinds of content and other ways of organizing content. So, over those 30 years, things like mapping have become more important as analytic tools and as user interface. And over time, we also become more involved and more capable at things like three-dimensional modeling of cultural heritage materials and buildings. You can learn more about 3D work in the UVA Scholars' Lab here: https://wordpress.its.virginia.edu/Cultural_Heritage_Data/data-2/.

I think probably the single biggest impact on the digital humanities has been from the massive digitization of the texts that I mentioned earlier with things like HathiTrust, the Internet Archive, the Million Books Project and other large scale digitization efforts, because when you have lots of texts in machine readable form then different kinds of methods, text analytic methods, become relevant and open up different kinds of questions. That line of digital humanities is leading into machine learning, artificial intelligence and the application of those tools in the humanities research.

Professor Huiling Feng:

After I heard the UVA has already been engaging in DH over 30 years, the UVA can be the trailblazer in the field. In my teaching, I find that there are at least three parts showing photos of John Unsworth and his contribution to DH. Although we started this project a little bit late,

we would spare no efforts to try new things. As for the 3D modeling mentioned by Professor John Unsworth, we have a big dream. Except for applying the 3D modeling into displaying the historic and cultural city of Beijing at one time point, we plan to build the 4D modeling by adding another dimension, timeline. By adding the time dimension, the change of the whole Beijing city can be displayed by the model originating from 1046 B.C. to now. However, there exist great difficulties. It's like a production line including upstream, middle stream and downstream sectors. To be specific, the upstream sector gathers scholars from the disciplines of history and geography. They need to complete a tremendous amount of work to find out related maps and historical and geographical information, facts, and literature. In the middle stream sector, we are to build the model of geographical information system focusing on the geographical condition of Beijing. After finishing the above procedures, we can start the work to build the model of architectures of the city. So far, we have finished the modeling of the period of Qian Long, an emperor of the Qing Dynasty (1736-1796). We hope to insert many significant events into the architecture model, which has not been seen before. Recently, we have launched this project and convened scholars from different disciplines to brainstorm new ideas. We hope to know which method can be chosen to help us recall the past like using a "time machine". Besides, I want to share another interesting project, and our School of Chinese Classics is planning to build a multi-language database about the western regions of China by collecting texts of languages used by people of ethnic minorities in the western regions of China. Some of languages are to be extinct as fewer and fewer people can now understand them. For many centuries, those languages have formed their classic literature to inherit culture, communication and interaction. We hope to build a database for those rare languages used by ethnic minorities so as to inherit their classic literature and civilization exchanges and bring back their resplendence.

I once read a vivid comment given by Professor John Unsworth, "digital humanities is like a cross axis for humanities". I would like to choose another phrase to describe DH that is confluence. Like water, when it takes access into humanities, DH can also have some influence and penetration into the original humanities. If we consider the original humanities as a river boasting, its fixed river paths and branches, digital humanities resemble a new branch joining in this river and bring changes to its original one.

Professor Tsui Lik Hang:

Based on Professor Feng's analogy just now, I think this is an issue of the intersection with the problem of disciplines. And this is also what I would like to turn to in asking you both. Professor John Unsworth mentioned the studies of text archives. We know that he comes from the department of English, and is an English professor, as well as his role in the library and so on. And Professor Feng mentioned the digitization of cultural heritage in Beijing. Both of you have involved diverse projects. But one thing in common is that both of you work in the library and information science context. What are your thoughts on the relationship between DH and library and information science? Are there some generalization that you could draw on about how your peers in libraries and archival science to look at the development of DH?

Professor John Unsworth:

I think there is a natural home for digital humanities in the many schools of information, information science and library & information science. In the school at Illinois where Ruan got her PhD and where I was the dean for about nine years, they now have employed a number of people well-known in the field including Ted Underwood who is a leading figure in the text analytical computation sort and Ryan Cordell who does digital humanities in the context of book history. So it's a natural home, because as a professional school the Illinois

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School of Information Sciences is generally focused on what people want to do with information and information technology, rather than looking at it from the technological end of the telescope. It's on a human end and that's appropriate for digital humanities, but it's appropriate for many domains where people use information and information technologies. So, I think this is a good fit, and there are certain people who come out of those programs and go to work in the libraries to support the digital scholarship, from creation to preservation. I think the output of the digital humanities is a little daunting from the preservation point of view, and I think archives and archivists sometimes are a little worried about what's coming their way.

Professor Huiling Feng:

This question is worthy of being discussed. When it comes to DH, people intuitively think of it, there are some scholars who are engaged in either digital methods or humanistic research. Joined research efforts could be of great potential. In our recent retrieval of archives, 50% of the published papers in China focusing on DH from the discipline of the library and information science. And in this discipline, around 40 journals have published papers about DH. For most DH research centers in Chinese universities, this discipline is the major initiator or participant. A lot of projects about DH have been hosted or organized by institutions like libraries, archives and museums. Shanghai Library, the organizer of China Digital Humanities Alliance, belongs to this discipline. I wonder why this discipline is so dominant in the field of DH. Just as Professor John Unsworth used words "a natural home". I cannot agree with him more. In my opinion, there are two major reasons. First, those institutions enjoy the abundance of resources in humanistic scholarship. Second, those institutions have the responsibility to conduct this work. Recently, those institutions are facing digital transformation. In this process, they need to organize digital resources. Naturally, their work is to interact with a large part of DH, or close to the research of DH. As those institutions can be linked to DH by digitizing literature and knowledge, comparing with other humanistic scholars, information science scholars from those institutions and disciplines have fewer difficulties to be linked to DH, in terms of mentalities, visions and methods. As a result, information science scholars can naturally accept and embrace the field of DH.

However, in my perspective, scholars from the disciplines of humanities and library and information science hold different research focuses. On the one hand, for our discipline of library and information science, we are to make our contribution to DH's infrastructure or internet infrastructure by focusing on public cultural services and the transformation of our research work. On the other hand, scholars from humanities focus on the need of humanistic studies and establish projects rooted in the research interests of their own disciplines. Thus, scholars from those two different major types of disciplines cannot be replaced with each other. We, scholars from the library and information science cannot merely put forward professional and in-depth questions in DH. Although, some scholars from the humanities have less interests and energy to conduct research focusing on the public culture and DH's infrastructure, both of them can put on unique efforts. Personally, as digital humanities move forward, there will be more scholars from humanities who would like to join in DH research.

Professor Tsui Lik Hang:

Professor John Unsworth mentioned preserving digital scholarship and the project of studying the history of DH. And one of the specialties of Professor Feng is digital memory. In this light, could you both talk about how the social memory is preserved and forgotten, especially for born digital records and how can current digital methods tackle this? How is the grand sector responding?

Professor John Unsworth:

As we transition to this question, I will leave a couple of things here in the chat about disciplinary backgrounds of people who do DH, because it has been noted that some of them come from library and information science and others from the humanities disciplines. Melissa Terras and others have done interesting work quantifying the participation in the field over time. As for preservation, the field right now is trying to secure the history of its own development through projects like the Index of DH Conferences over the years. There are considerable and long-standing discussions in archives about what gets remembered, what gets forgotten, what voices get presented, what voices happened raised or simply ignored.

Professor Huiling Feng:

Memory and forgetting are the eternal topics for humans to discuss. Human beings have tried many ways to fight against forgetting. On the one hand, it is probably that the inability to forget on its own has now become a social problem, whether we have the right to forget. However, another major social problem is that due to diverse reasons, the pace of forgetting in this digital society has been accelerated. As for responding strategies, personally, there are two. First, the memory expert told us that the act of forgetting happens unconsciously. Usually, we forget things in an unconscious manner. But memory needs to deal intentionally with the past. That is to say, the act of memory needs consciousness. Secondly, according to Maurice Halbwachs, the forerunner in this field, collective and social memory needs to be constructed and re-constructed. In other words, we need an action as the memory cannot turn out to be spontaneously and naturally carried forward.

Thus, on the basis of the above-mentioned two ways, in this era of fast forgetting, our generation has the responsibility to construct the memory. While in the digital era, what we construct is the digital memory.

We have done the memory construction for around ten years. I found there are two types of difficulties. First, as Professor John Unsworth just mentioned, the resources are hard to be acquired. Compared with general academic resources, this type of resources is more disperse, and there are fewer amounts of officially authorized resources. Most of recourse is created from folk communities. Furthermore, the types of the literature are diversified. In addition to texts, these types include audio, video, oral narration, and other stylistic forms are part of family genealogy. It is very difficult for us to integrate those various types and make semantic and structural organization of those resources, so as to streamline the clues within these resources. Secondly, the memory of any regions, institutions or organizations has diversified dimensions. It is hard to clearly narrate or describe those different dimensions. Therefore, in my view, this work requires both the input of the humanistic spirit and care and the help of digital methods.

Questions and answers:

Question from Professor Huiling Feng:

The international community of DH is still concerned about the projects related to digital memory. But the guide for DH and relevant academic research has had little discussion on digital memory. Since I have participated in the practice of memory for a long time, I still have some confusion. Personally, in the project of memory, not all aspects of the project need to apply the quantitative and structural organization of data. And sometimes, methods of narration will also be applied. So for me, the relation between the data and narration could be a worthy topic for DH. What is your comment?

Professor John Unsworth:

I have worked with some digital history projects. I know how important the storytelling is as a method in history. Narrative is a very efficient way to do some kinds of work. Here in the

chat is a link to The Valley of the Shadow, an early digital history project in which I was involved. It has now been collected by the library. And there is an interesting story about this. What you can see here is the collection of primary resources—contemporaneous newspapers, census records, diaries, letters, etc. The actual scholarly output in some sense from this project was a book. It is called *In the Presence of Mine Enemies*. And it's a type of civil war history that focuses on everyday people and everyday lives. Stories are threads picked from primary materials and followed through the record to narrate the experiences of individuals. That is a method different from quantitative and statistical approach. I totally respect that method and I agree that it accomplishes different aims than you would do by quantitative analysis. Even the quantitative analysis also requires you to tell a story of some sort of data. So you never get away from narration really.

Questions from Professor Hsiang (National Taiwan University):

I am so delighted to have this chance to interact with Professor John Unsworth and Professor Feng. Professor Unsworth mentioned that we have had a clear mind to use a large number of texts to conduct DH research. What I am curious about is that in the world of Chinese language, we seem not to be clear about how to use a large amount of archive to conduct DH research. One important thing for the DH is to use massively digitized things to conduct research that hasn't been done before. Generally, a big problem for the archive is that it is hard to be presented in a full text. Take China for example. We have a lot of archives. But I don't find the big influence brought by DH in the research of archives. Professor Feng is an authoritative figure in the field of archives in China. My question is what is your opinion about using the archives as the primary source to conduct the research of history? What are the recent trends and future development?

Professor John Unsworth:

Archives in general are much larger and more complex than book collections in libraries, often handwritten and loose-leaf materials, where both scale and complexity pose some special problems for digitization. The language of the archive brings with it other challenges: for example, archives in Chinese are more difficult to be transformed into machine-readable form than archival records in English. Because of these challenges, I do not expect to see a "Google Book" project for archives, at least not in my lifetime. If we thought of libraries and archives as a pyramid, the largest amount of material—the bottom three quarters of the pyramid—would be archives, and the book collections would be the small triangle at the top. Archives as digital records will therefore generally be less available than books for computational manipulation. Computational work with archival materials is going to require further development in AI enabling analysis of things like page layout and handwriting. I have no doubt that this will happen at some point, though. Eventually there will be a huge amount of archival material available, but we are further away from that than people might think right now.

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