DHQ: Digital Humanities Quarterly
2023
Volume 17 Number 3

Starting and Sustaining Digital Humanities/Digital Scholarships Centers: Lessons from the Trenches

Lynne Siemens <siemensl_at_uvic_dot_ca>, University of Victoria https://orcid.org/0000-0002-5799-534X

Abstract

Along with the growth in Digital Humanities (DH) and Digital Scholarship (DS) as digital methods, resources, and tools for research, teaching and dissemination, interest in starting DH/DS centers as a means to support and sustain researchers and projects is fast increasing. For those leading these initiatives, it raises questions about the ways to engage possible stakeholders to develop support for a centre, apply existing models, secure funding sources, and many others. This article contributes to this discussion by examining the experiences of ten DH/DS centers in North America and discerning smart practices for those wishing to start a similar center. Often started by faculty or administrative champions, the interviewed centers have a long history of operations. They offer a suite of activities and services, ranging from consulting, training, access to technology, project support, and others, with staff drawn from libraries, faculties, student ranks, and other locations. These efforts support teachers, researchers, and students in their efforts to undertake DH/DS projects. The centers are often funded through a combination of base budgets and soft money and may be based in a library or faculty. The paper concludes with implications for practice for those wishing to start their own DH/DS center.

Introduction

1 Along with the growth in Digital Humanities (DH) and Digital Scholarship (DS) as digital methods, resources, and tools for research, teaching and dissemination, interest in starting DH/DS centers as a means to support and sustain researchers and projects is fast increasing. There is a long history of successful DH/DS centers that accomplish these goals. Some early centers include Princeton and Rutgers' Center for Electronic Texts in the Humanities (1991), The University of Virginia's Institute for Advanced Technology in the Humanities (1993), Brown University's Scholarly Technology Group (1994) and ones at Oxford and King's College London [Fraistat 2019]. For those leading these initiatives, it raises questions about the ways to engage possible stakeholders to develop support for a centre, apply existing models, secure funding sources, and many others.

2 There have been various attempts to answer these questions and guide those wishing to start their own center. Efforts include workshops such as CNI-ARL's one on planning a digital scholarship center [Goldenberg--Hart 2016] and Flanders and Mylonas' course at HILT [HITL, 2016]. To further aid nascent centers, centerNet [centerNet 2022] has developed a page of resources for starting and sustaining DH centers which includes articles, talks and documentation from existing centers. Additionally, in 2013, there was a discussion thread on Humanist about ways to plan for a DH center [McCarty 2013], [Stumpf 2013], [Unsworth 2013]. Finally, successful DH/DS centers have published case study articles that provide insight into their experiences and ways that this might be replicated in other settings [Bergstrom 2016], [Coll et al. 2020], [DeRose and Leonard 2020], [Fraistat 2012], [Miller, 2016], [Risam et al, 2017], and [Rosenblum and Dywer 2016].

3 This article contributes to this discussion by examining the experiences of ten DH/DS centers in North America and discerning smart practices for those wishing to start a similar center. We can learn from those who are already involved in such centers and transfer these insights to others. Finally, this article will help advance the minimal knowledge base

regarding the creation and sustainability of research and teaching centers in Digital Humanities and Digital Scholarship.

Context

There is much debate about the definition of DH and DS with the terms sometimes used interchangeably [Kirk et al. 2017]. From a broad perspective, digital scholarship involves the "creation, production, analysis, or dissemination of new scholarship using digital or computational techniques, or both" [Lewis et al. 2015], allowing for both research and tool building. Digital humanities and digital social science are often included within this definition [Lewis et al. 2015], [Miller, 2016]. At a more basic level, digital scholarship centers have a broader mandate than digital humanities ones which "are often specialized research centers led by a group of faculty and serving only select disciplines rather than a broad campus community" [Lippincott et al. 2014]. 4

Regardless of how defined, broadly speaking, according to [Unsworth 2007], these types of centers are cyberinfrastructure that include collections of expertise, equipment, and software, and generate economies of scale in terms of both resources and expertise. Echoing this, [Zorich 2008] argues that a "digital humanities center is an entity where new media and technologies are used for humanities-based research, teaching, and intellectual engagement and experimentation. The goals of the center are to further humanities scholarship, create new forms of knowledge, and explore technology's impact on humanities-based disciplines." A center "implies a central (physical and/or virtual) area where a suite of activities are conducted by individuals dedicated to a common mission" [Zorich 2008]. They create an anchoring space, bring technical expertise into one location, and provide for networking opportunities [Coll et al. 2020]. Ultimately, these "[c]entres and laboratories, therefore, contribute to enhancing the visibility of the humanities on campus and beyond" [Pawlicka-Deger 2020b]. They help create new digital resources and tools that develop benefits for the humanities community and beyond [Fraistat 2012]. 5

It is difficult to identify a typical DH/DS center because there is no single model [Miller, 2016], [Prescott 2016], [Sanders 2019]. They are generally structured around the strengths and priorities of partners and institutions [Bergstrom 2016], [Cummings 2020], [Goldenberg--Hart 2016], [Kirk et al. 2017], [Mitchem and Rice 2017], [Phillips et al 2020]. For example, centers might focus on service, research, pedagogy, or a combination of these activities. Others can be organized around a theme or discipline such as media studies or a single activity like digitization. Some centers might build tools and resources or host them [Cummings 2020], [Fraistat 2012], [Sample 2010], [Zorich 2008]. In terms of administrative homes, some centers are freestanding at the faculty or university level while others are part of existing departments or may even be their own department. Further, some might be support services and part of a library or computing services [Prescott 2016]. The reporting structure is also dependent on the particular center. They might report to a variety of people, including a dean, provost, vice president or department chair. These reporting relationships may be formal or informal. It is also not uncommon for centers to change their administrative home and mandate over time [Zorich 2008]. 6

Regardless of focus and mission, a common set of activities can be identified which enable someone to receive advice and/or become a place where ideas can be developed and shared all to the end of developing new knowledge [Fraistat 2012], [Prescott 2016], [Zorich 2008]. These activities might include but are not limited to: 7

- Building digital collections and resources for scholarly activities or teaching
- Creating tools for authoring, building digital collections, analyzing collections, data and/or research processes, and managing the research process
- Offering training and mentoring in the form of workshops, courses, academic degree programs, postgraduate and faculty training, fellowships and internships
- Hosting lectures, programs, conferences, seminars and events on digital humanities and digital scholarship for general or academic audiences. These might take the format of one-on-one or group sessions.
- Providing collegial support, consultation, and collaboration with individuals from other academic departments, libraries, and organizations on digital preservation, curation, digital project management, digitization, intellectual property, metadata, open access, text encoding, text mining, and other topics
- Conducting research in humanities, digital humanities, and other disciplines

- Serving as an information portal for a particular humanities discipline and repository for humanities-based digital collections
- Providing technology solutions to humanities departments
- Assisting with grant writing
- Providing seed grants and funding for digital projects
- Providing access to software and hardware
- Offering a physical and/or virtual space for work, consultation and facilitation of knowledge transfer [Alexander and Davis 2012], [Cox 2016], [Cummings 2020], [Lippincott et al. 2014], [Oiva 2020], [Pawlicka-Deger 2020a], [Sanders 2019], [Zorich 2008].

These centers tend to meet the needs of several key stakeholders. These include 8

- campus members such as faculty, staff, students, postdoctoral and faculty fellows, and campus administrators. Researchers and staff might come from various disciplines including humanities, social sciences, computer science, sciences, business, and others
- people beyond the campus which can include visiting or international scholars and researchers
- the educational community, such as K-12 schools
- organizations such as museums, other research centers, and industry
- the general public and community groups [Kirk et al. 2017], [Oiva 2020], [Phillips et al 2020], [Zorich 2008].

Regardless of the types of services offered, these centers tend to have both physical and virtual presences. Some are more physical in nature when primary users are located close to each other while others are more virtual when their users are more geographically dispersed [Zorich 2008]. The origin story for each center is different. Sometimes, a single occurrence, such as conversations with a senior administrator or funder who then offers money, prompts the center's start. In other cases, similar activities are grouped together under an umbrella of DH/DS. Others are the result of a campus wide initiative to promote the humanities or digital scholarship. Further, some centers have their start as computing service/IT units which slowly over time offered support to digital humanities projects. An academic entrepreneur sometimes plays a role. In these cases, a faculty member may start a center to meet their research needs and then grows it to include other digital research programs. Finally, for others, the process is not linear as the center moves from a project to a program. This takes effort to gain buy-in from others on campus [Zorich 2008]. In many cases, a champion is needed to make the case for investments through staff allocation, funding, and project development [Kirk et al. 2017], [Lippincott et al. 2014]. 9

While the primary study of digital humanities centers was conducted by [Zorich 2008] and supplemented by other studies [Lewis et al. 2015], there have been several case studies published which provide perspectives for other institutions interested in starting an initiative. One lesson focuses on the size of the center and its rate of growth. Many of the case studies started small and grow slowly [Coll et al. 2020], [Fraistat 2012], [Mitchem and Rice 2017]. In some cases, centers may begin with staff that are available locally [Bergstrom 2016]. As one example, in 1999, the Maryland Institute for Technology in the Humanities (MITH) started with a director and two research assistants and grew by 2012 to include ten faculty and full-time personnel with another approximately dozen full- or part-time staff who were supported through grant funding, graduate assistantships, federal work studies, and internships [Fraistat 2012]. Further, SUNY Oswego started with a computer scientist interested in DH and grew to several hires with administrative support and a program in DH for undergrads [Coll et al. 2020]. 10

These examples also demonstrate that a common space for a center is the library [DeRose and Leonard 2020], [Fraistat 2012], [Risam et al, 2017]. A library is seen to be an interdisciplinary space where faculty are accustomed to using technology and services there. It is a space that is well-visited and possesses technical infrastructure, software, and collections with expertise in metadata, copyright, data management, digital preservation, and project management [Cox 2016], [Cummings 2020]. Librarians may also have the ability to bring different parties together through their relationships with faculty and researchers and a history of collaboration [Cox 2016]. 11

These case studies also found that the timing has to be right [Cummings 2020], with a focus on an institution's mission 12

and strategic goals [Mitchem and Rice 2017]. For example, the University of Utah found that an earlier incarnation of a digital scholarship center failed to gain a critical mass. At the same time, it dealt with budget retrenchment which caused the library to refocus efforts on core services. As a result, this center disbanded. The second time around proved more successful as the new center built on efforts in other parts of campus and developed key academic partnerships and shared ownership and investment [Cummings 2020]. The University of Kansas' Institute for Digital Research in the Humanities [Rosenblum and Dywer 2016] and Middle Tennessee State University [Miller, 2016] also built on activities already under way. These efforts are collaborative, involving many stakeholders. For example, the University of Kansas's center had three primary stakeholders which included the library, the College of Liberal Arts and Sciences, and the Hall Center for the Humanities, all providing financial support and guidance [Rosenblum and Dywer 2016].

13

As part of starting activities, nascent centers gather information to determine the need for it and associated services. This includes seeking information from local stakeholders and outside experts and conducting an environmental scan [Cummings 2020], [DeRose and Leonard 2020], [Miller, 2016]. The University of Utah found that outside experts focused on the need for strong relationships with administration who could provide financial backing and political capital. Further, these individuals stressed that the new center's mission should be shaped by local needs and strengths. This knowledge guided their efforts to start a center [Cummings 2020]. Similarly, Appalachian State University undertook a gap analysis between what was presently being offered on campus and what was needed in order to determine key activities for the new center [Mitchem and Rice 2017]. In addition, SUNY Oswego conducted a survey to determine the extent of DH/DS activities on campus and used the results to inform next steps [Coll et al. 2020]. As a final example, Yale hired a design anthropologist to determine the needs for DH on campus which would then inform the design of a DH center in the library. To gather this information, the anthropologist conducted interviews with students, faculty, and staff from different backgrounds, held design workshops, and undertook benchmarking research with colleagues from other institutions [DeRose and Leonard 2020].

Methodology

14

Through semi-structured interviews, ten center directors were asked a series of questions about their DH/DS center. An attempt was made to have a variety of representation from Canada and the United States, size of institution and age of the center. The directors were all known to the researcher. The interviews were conducted primarily through zoom. Lasting about an hour, the interviews focused on open-ended questions that explored the center, its mandate and services, budget, staffing, center's history, key factors of success, and challenges to being a center. These interviews allowed the researcher to explore topics more fully and deeply with probing follow-up questions while the participants reflected on their own experiences and emphasized those issues that were important to them. Analysis of documents and articles related to the centers supplemented the interviews.

15

Data analysis involved a grounded theory approach that focused on the themes that emerged from the data. This analysis was broken into several steps. First, working from audio recordings and detailed notes, the data was organized, read, and coded to determine categories, themes, and patterns. Those categories were then tested for emergent and alternative understandings, both within a single interview and across all interviews. This was an iterative process, involving movement between the data, codes, and concepts, constantly comparing the data to itself and the developing themes [Marshall and Rossman 1999], [McCracken], [Rubin and Rubin 1995].

Findings

16

These interviews provided insight into center start up, key activities, human resources, budget allocation, key factors of success, and challenges.

Center history

Institution	Founding year
Princeton Center for Digital Humanities	2010-2011
Indiana University Institute for Digital Arts and Humanities	2007
Northeastern University Digital Scholarship Group	2014 (formal start in 2015)
Texas A&M (TAMU) Center of Digital Humanities Research	2011
University of Saskatchewan Digital Research Centre	2007
Hamilton College Digital Humanities initiatives	2009
Toronto Metropolitian University Centre for Digital Humanities	2012
CUNY Graduate Center Digital Initiatives	2012
Brown University Center for Digital Scholarship	1994
University of Nebraska Center for Digital Research in the Humanities	2005

Table 1. Center founding years

These centers have long histories supporting faculty, staff, and students at their institutions with the oldest being over 20 years old. During this time, these have not stayed static for many have undergone several iterations and name changes. By way of example, the Center for Digital Scholarship at Brown University started as the Scholarly Technology Group based in IT in 1994 and then moved to the library in 2008. During this time, there have been several name changes to reflect its changing mandate. As another example, the Digital Humanities initiative (DHi) at Hamilton College was conceived in 2009 and received a Mellon Grant in 2010 to develop the center. While the primary focus was initially on the humanities, the initiative's mandate was broadened in 2019 to become a suite of services available to the full campus. The transition came about after changes in senior management roles. Finally, the University of Saskatchewan's Humanities and Fine Arts Digital Research Centre is now known as the Digital Research Center. The name change corresponded with a move from its faculty home to the library and reflects that the center is now focused on the entire university and less discipline specific. 17

There are several different ways that these centers started. Some began around individual faculty projects who became faculty champions and generated support for a center. At Princeton, at the time of their tenure, a faculty member had materials for the archive and saw the potential for digital humanities at an institution where there was little. They had the vision and passion for creating a center and envisioned a unit which would undertake research with faculty members and train the next generation of humanities scholars. Consequently, the faculty member asked the provost for start-up funds and created buy-in from the chief information officer, faculty members, librarians and graduate students and started The Princeton Center for Digital Humanities. Another example is Toronto Metropolitan University in Canada where two faculty members had a digital project and started the Centre for Digital Humanities informally. It became a formal research center when they needed space to house its activities. A third instance is at University of Saskatchewan where a faculty member who was at the time vice dean of Arts and Fine Arts wanted to create digital editions but needed space and equipment for graduate students to work. Several others wanted to collaborate with this person. Consequently, the participating faculty members received money for space renovations, equipment, and a staff member and started the center. 18

Other centers started as a strategic direction for the institution. At Texas A&M, a white paper was developed which outlined a vision for a digital humanities center and delivered to the Vice President Research who provided funding for space, a director and equipment. The initiative built on the strengths of faculty who were already doing research and getting grants in the area. Another example is the University of Nebraska where the university wanted to create "programs of excellence" in select areas which would allow the institution to build world class expertise. Digital Humanities was argued to be one of these areas where the university could lead the world. The result was several cluster hires and a research center. Finally, CUNY had a provost interested in digital initiatives who provided support to the center start up and operations. 19

Key Activities Offered

Institution	Activities
Princeton	• Collaborate/consult on faculty research projects • Support graduate students and postdoctoral fellows • Provide training in project management • Provide faculty projects with graduate student project managers • Provide funding for project incubation, data curation, technical development, conference travel for faculty and students • Host talks
Indiana University	• Consult on projects • Host summer incubator to foster project development • Sponsor speaker series, training, workshops, spring symposium • Provide funding for faculty and grad student projects • Offer faculty fellowships, student mentorship and training • Offer certificate and minor program
Northeastern University	• Host speakers, workshops/training • Host interns • Provide project support, mentorship, consultation • Provide graduate and undergraduate student research assistantships and internships
TAMU	• Deliver workshops and courses • Host speakers • Deliver a book series • Offer internships, assistantships and postdoctoral fellowships, graduate student training • Provide faculty project support and funding
Saskatchewan	• Provide digital assess management, digital preservation, digitization • Provide exhibit research support
Hamilton	• Consulting on data management and grant proposals • Host speakers, training, and workshops
Toronto Metropolitan	• Provide training to graduate and undergraduate students • Host workshops and speakers • Sponsor research fellows • Consult on research and digital pedagogy • Facilitate faculty research
CUNY	• Offer Workshops/training/degree courses • Consult on student and faculty projects

	• Provide lab space and maker space • Provide grant funding for graduate students
Brown	• Offer workshops and training • Provide faculty project support • Support digital publications
Nebraska	• Consult on project and grant proposals • Sponsor speakers • Train graduate and undergraduate student interns and research assistants • Support postdoctoral fellowships • Assist with project design and metadata

Table 2. Key Center Activities

Despite the different start up scenarios, these centers undertake some common activities. They all tend to offer consulting, access to technology (hardware and software), speaker series, workshops, and training for faculty and students. In some cases, these activities also go further to include project management, research and pedagogy support, grant writing assistance, seed grants, and others. They all have a virtual presence through a website, which has become especially important in this age of COVID-19. These centers also have physical spaces and offer work and meeting area for faculty, staff, and students. 20

Many of these centers are physically based in the library. At Princeton, the physical space is seen as a place where people from different faculties can gather and meet. Echoing this, the University of Nebraska felt that the library was a neutral space where everyone can interact and have interdisciplinary conversations. Indiana University uses its physical space in the library to provide meeting space, consultation, access to equipment, scanning lab, and makerspace, and programing such as a summer incubator program. Understanding the important role that libraries play, the University of Saskatchewan and Hamilton College moved from their faculty home to the library and broadened their mandate to include the rest of campus. It is important to note that just because a center is based in the library, it does not mean that it is the administrative home for it. Toronto Metropolitan University is based in the library but reports administratively to the Faculty of Arts. In other cases, the centers are located outside the library structure. For example, at Texas A&M, the Center of Digital Humanities Research is in the liberal arts building with an administrative home in the College of Liberal Arts. 21

Each of the centers had some focus on student development. At Hamilton, DHi supported undergraduate students to work with faculty through grants. This was successful as students developed skills that allowed them to get into graduate programs and find employment. This focus fits the mission of small liberal arts colleges [Simons and Nieves 2019]. Indiana University followed the same model to the same end, that is students gaining valuable skills that translated into employment afterwards. Princeton also found this benefit as they supported graduate students as fellows for their own research projects. In this way, they were creating the next generation of humanities scholars. 22

Staffing

Institution	Staff numbers (including portions of people’s time, part time staff, students, and affiliated researchers)
Princeton	• 6 Permanent staff plus faculty director • Temporary 50% designer, 50% admin • Graduate and undergraduate students as fellows, research assistants,

	grant recipients • Postdoctoral fellow funded by Humanities Council • Affiliate members
Indiana University	• Co-directors, library and faculty • 1 Full time staff – Admin and Outreach Coordinator • 2 PhD graduate assistant positions • 1 Masters assistant position • Graduate fellows • Contributions from library • Faculty Fellows
Northeastern University	• 9 Permanent full time staff • Lab coordinator • Visiting student fellows • Staff and faculty fellows • Half time director
TAMU	• 1 FTE program coordinator • 1 FTE programmer • Director • Associate director • Affiliate faculty
Saskatchewan	• Library staff, 2 ½ - 3 FTES • Co-directors – library and faculty
Hamilton	• Co-directors • Programmer plus library/IT staff • Student assistantships
Toronto Metropolitan	• Director • 1 Project manager (part time) • 2 Senior research fellows • 20 Research fellows • 15 Members • 8 Associate research fellows • 16 Student research fellows
CUNY	• Graduate student fellows • 2 Full time staff • Director
Brown	• Graduate student fellows • 2 People to publication effort

	• 3 Library staff • Post doc on soft funding • Faculty director
Nebraska	• Co-directors between library and faculty • Programmer • Designer • Faculty fellows • Library staff • Graduate and undergraduate student research assistants

Table 3. Center staffing

It is difficult to quantify the number of staff that work in each center. The staff often include parts of librarians' time and graduate and undergraduate students who work part time on faculty projects, training, and workshops. The number of staff, including students, can ebb and flow over time in response to budgets and priorities. For example, CUNY has had more students in the past but financial issues led to budget cuts and reduced number of students. 23

Some of the centers are very small. At Texas A&M, there are three people listed on the website, a director, associate director, and programmer. Additional grant funding allows for graduate and undergraduate research assistants. Some centers are larger with portions of more library staff's time. In other cases, bigger hard budgets allow for more permanent staff. At Princeton, their budget allows for six permanent staff with approximately five graduate students as fellows who undertake their own research projects. There are other graduate student fellows who are project based with administrative responsibilities along with several undergraduate students. 24

From an administrative perspective, the co-director model with a librarian and faculty member is common. University of Nebraska has been using this model since the center's inception and Indiana University's current administrative structure reflects this. Further, the University of Saskatchewan now uses this model after years of a single director/coordinator with their move into the library. There is often release from teaching for the faculty member to serve as director, thus reflecting the amount of time that coordinating a center takes. The director position is often part of the librarian's job. In contrast, Toronto Metropolitan University does not offer course release to the faculty director. Combined with a part-time project coordinator, this limits the ability of the center to be proactive in support of projects and workshops and its ability to recruit new fellows. 25

Funding

Institution	Funding
Princeton	• Hard based budget
Indiana University	• Funding – cash, in-kind, from OVPR, dean, departments, IT Services, libraries • Grants
Northeastern University	• Hard funds with grant funds to fund new feature development and temporary staff
TAMU	• Staff funding • Funds for faculty grants
Saskatchewan	• Soft money for programmer • Library funded positions
Hamilton	• NEH grant funding to start up • Commitment of time for co-directors
Toronto Metropolitan	• Dean and departments funding • Grant funding for RAs • Largely soft money and in-kind funding – internal, external grants
CUNY	• Combination of hard and soft funds
Brown	• Some base budget with soft funds
Nebraska	• Hard and soft funds and in-kind contributions from university stakeholders

Table 4. Budget Components

Like the case for number of employees, it can be hard to measure funding levels for both cash and in-kind contributions. These centers are funded through a variety of models. At Indiana University, the center was funded initially as an experiment by the university president. The developers were base funded for the first several years but this was not sustainable. As a result, the funding model was changed over time. Now, the operational costs are provided by the Office of the Vice Provost Research along with several National Science Foundation, National Endowment for the Humanities, and other grants. In-kind funding is provided from the library for the library co-director and several graduate research assistants. The College of Arts and Sciences pays for the faculty co-director and two graduate research assistants. As another model, Northeastern shifted from grant funding to base budget but still uses grants to fund new features of development and temporary staff. This model helps reduce staff turnover, improve morale, and focus attention on strategic activities because the center is not continually writing grants for base operations. As a final model,

at the University of Nebraska, the center's founding members, including departments and dean's office, contributed to it financially. The English department provided funding for the faculty co-director; the library reallocated positions to the center and provided funding for the library co-director; and the dean's office reconfigured a professor position into a DH position. By grounding the center in these major units, it became harder to dislodge it in financially challenging times. Princeton receives a relatively large base budget from the provost. There are some National Endowment for the Humanities grants but the center does not generally apply for grants to do projects. This means that there is a limit to the number of partners with whom it can work because there is no soft funding. On the other hand, this situation helps with staff recruitment and retention because the center can guarantee permanent positions.

27

In contrast, the University of Saskatchewan found that the use of soft, grant-funded dollars meant that the center "limped along". This situation led to a crisis point at which point the library stepped in to provide stable funding. Toronto Metropolitan University's center is also in a position of little base operational funding. It relies primarily on soft money and in-kind contributions with internal and external grants and space, furniture, and computers. It is continually lobbying for some base budget for stability and ability to expand services. CUNY has also found that if it used grant funding for permanent staff positions then it was always writing grants.

Factors for Success

28

The interviewees were asked to articulate the key factors that led to the center's success. These factors focused on champions, partnerships, funding, targeted activities, their virtual and physical space, and the training and mentoring of students.

29

Above all else, champions are key. These centers were founded by an individual or small group of people who had a vision for the center's potential and were able to articulate it and convince partners, stakeholders, and senior administration to invest time and money. In the case of Princeton, the faculty lead saw the future of humanities at the university and convinced partners that a center was needed. In fact, the interviewee from Princeton said that it was hard to overstate the importance of the faculty lead in the center's success. This individual was able to create strategic relationships and advocate for the center and continue this leadership over time. The center's director and associate director have been able to create a strong culture where the staff believe in the importance of the work. As Indiana University found, the center struggled when it was effectively leaderless for several years. As a result, the new co-leads spent time rebuilding the program. With other centers, the universities wanted to be seen as an innovator in the area. Northeastern hired a director with a reputation in the community to make this vision a reality. The same was done at Nebraska with a cluster hire which grounded the center in DH research. At Texas A&M, two faculty members wrote a white paper which led to funding for center start up. At University of Saskatchewan, a faculty member wanted space for students to work on their research project. Other researchers became interested and they secured funding to renovate a space and buy equipment. At Toronto Metropolitan, the center grew out of two faculty members' research projects and slowly over the years more projects became involved. The financial support for the DH center at CUNY came from the Provost, who had an interest in digital initiatives and scholarship. Finally, at Nebraska, the university wanted to invest in areas of excellence and DH was one area with potential to that end.

30

Another factor focused on people, partnerships and institutional support. The interviewee from Princeton stated that they were able to recruit and retain people with key skills and passion for the work. A key partnership was with the library which often provided space and staff as Northeastern found. Saskatchewan also found that working with the library to be critical. By being situated in the library more staff could be accessed and therefore more services offered. The interviewee from Brown echoed this by stating that the move to the library made sense since they became more of a champion and provided access to more staff. It is a natural place for a DH center that supports research since that is what a library does. The center at Northeastern also found that a partnership with another research center was key. This means that the centers' research agendas supported and complemented each other. Relationships between center staff is also key to success. As the interviewee from Texas A&M articulated, their staff worked well together, were excellent at their jobs, and engaged in their work. Another key to success is engaged faculty who grow to be a critical mass of individuals involved in DH as Saskatchewan determined. The interviewee from Toronto Metropolitan echoed this by articulating that the community is more than just one particular project.

31

These centers were also able to undertake their work with base budgeting with minimal soft money. As the center at Princeton found, the ability to function without soft money meant staff were more easily attracted and retained because they were hired on a permanent basis, as opposed to contracts. It is also a sign that the center had clear institutional support. They could hire smart people with a passion for the work. With base budgets allocated, it means that the grant funding that is secured can be used for new projects, temporary staff, and student positions as Northeastern articulated. As the interviewee from Saskatchewan reflected, soft money does not work and sustainable funding is needed. At Nebraska, each party that support the DH center contributes financial resources and staff time as a sign of their commitment.

32

At the same time, the centers were able to set boundaries around the services and supports they were able to provide. They did not try to be all things to all people. The interviewee from Indiana articulated that they were ideally able to use internal offerings to situate themselves for external funding opportunities. With Northeastern, focusing the mandate and services that could be provided meant that there was time to do things well and be able to be a good mentor to students and faculty. As the interviewee from Northeastern recognized, there needs to be constant negotiation when demands exceed capabilities. Texas A&M did comment that they felt that they needed to be everything to everyone, but quickly realized that they needed to focus on center activities to the exclusion of some others. At Saskatchewan, they found that they tried to please everyone at the outset and bought equipment for research that in the end was not undertaken. They found that it would have been better to figure out who the actual users would be and meet their needs first. As the interviewee stated, it is not a matter of “build it and they will come”.

33

Both virtual and physical space were keys to a center’s success. As Princeton’s center described, the physical space was a place where parties could be hosted and people from across faculties could talk. At Saskatchewan, the physical space created community. Toronto Metropolitan also has dedicated space in the library with workstations and small meeting space. In Nebraska the library was seen as a neutral space where people interact and have interdisciplinary conversations.

34

Finally, the centers saw as one of their key functions the ability to train and mentor undergraduate and graduate students and early career scholars such as postdoctoral fellows to become the next generation of digital humanities scholars who got jobs and accepted into graduate programs. It was an opportunity to transform lives of the participating students as the interviewee from Princeton expressed. This was echoed by Northeastern which recognized that students benefit from the DH experience. Further, CUNY saw them as ambassadors for DH. At Princeton, one of the postdoctoral fellows is responsible for teaching an undergraduate course in DH, thus bringing DH into the classroom. At Indiana, by incorporating DH into the classroom, research skills and projects by students and faculty could be developed. These training opportunities often meant providing time and space for students to work with faculty members. This includes the summer incubator at Indiana which had six slots – three for faculty and three for students. These individuals were paired together and worked to develop a working prototype over the course of a one-week intensive session. Further, the Indiana center recognized the skills and expertise that students were developing with a title of “method specialist”.

Challenges

35

While these centers found many benefits and advantages to operating as centers, there were many challenges. For example, operating without base budgets meant that partnerships, staff, and projects are limited in nature. Toronto Metropolitan realized that they are constrained in what they can do since they are not base funded. Unlike other centres, there is no course release for the director. The interviewee sees base funding allocation as a concrete sign of institutional support. The center at Princeton realized that they needed a particular expertise on staff but were not able to hire for it because there was no money in the budget. At Saskatchewan, when the center lost a soft funded staff person, it created a crisis point where either the center shut down or someone took it over. At that point, the library stepped in and took responsibility for it and consequently was able to provide more services. However, in CUNY’s experience, base budgeting does not protect a center from financial cuts as dictated by the institution. Budget cuts then impacted the number of students who could be supported by the center. The budget is further impacted by the fact that universities cannot often pay technical staff enough in comparison to private sector wages as the center at Nebraska

found.

There is also the constant struggle around staffing. For some it is determining the right number of staff. In Northeastern’s experience, too small and the center risks missing key skills and expertise. Of course, growing too fast presents its own challenges. Northeastern grew by 50% over the past year and needed to find ways to do this in an effective way. In other cases, reliance on students means high turnover and working around their course work and dissertations. CUNY has found that there is always a feeling of retraining. At Nebraska, staff often find themselves spread thin and there is a need for additional people to lessen the stress. And of course, the time required to run these centers is intensive and often takes more time than allocated in a job description. The interviewee from Indiana was allocated approximately 50% of their job to the center but the work often bleeds over that time allotment. 36

Discussion

Given the small sample size for this study, it is hard to generalize about DH/DS centers. However, some preliminary conclusions can be made. First, these centers show characteristics of many similar ones [Zorich 2008]. These centers offer a common range of activities and services with a combination of people, including researchers, librarians, technologists, students, postdoctoral fellows, and infrastructure, ranging from hardware, software and training [Kirk et al. 2017]. However, they do not offer “everything under the sun” but rather have found that it is important to set boundaries around services and activities offered, complimenting that which is offered in other parts of campus [Bergstrom 2016]. Funding often comes from the library, speaking to their active roles in these centers [Bergstrom 2016]. They also get budgets from a variety of places including academic departments, university administrative offices, grants, and endowments [Goldenberg--Hart 2016], [Lewis et al. 2015], [Zorich 2008]. Ultimately, these centers are linked to their institution’s goals and mission [Goldenberg--Hart 2016], [Kirk et al. 2017]. 37

Having said this, it is clear that each center is unique and shaped by its context [Goldenberg--Hart 2016]. Some centers, such as Saskatchewan, Princeton and Toronto Metropolitan, started in response to a faculty member’s research projects [Zorich 2008]. These individuals played a key role as champion for their center [Kirk et al. 2017], [Lippincott et al. 2014]. For some, this means that they are part of the library and offer services to more than students and researchers based in the humanities. This includes the centers at Hamilton, Northeastern, Saskatchewan and Brown. Others, such as Princeton, Toronto Metropolitan, and Texas A&M, are based in a faculty or department, even if they are still physically situated in the library. Further, other centers are a combination of the library and faculty as is the case with Indiana and Nebraska. This organizational structure is reflected in the co-director model with someone from the library and someone from the faculty serving as directors, representing these important stakeholders [Rosenblum and Dywer 2016]. Finally, given the nature of the institution, CUNY’s center is free standing within the graduate center. 38

The differences between the centers can also be found in the funding envelopes. Some are funded through substantial base budgets from provost offices as is the case with Princeton and CUNY. This reflects the support that can come from senior administration. Other centers have hybrid funding models with cash and in-kind budgets flowing from the library, faculty and departments. This includes Nebraska and Indiana and demonstrates a broad base support for DH/DS at the institution. Another funding model focuses on base budgets from libraries like the case of Northeastern which reinforces the role of the library as a home for these centers. There is some evidence to suggest that those centers based in or associated with libraries might be in the best financial position [Lewis et al. 2015] and have more stability and ability to plan long term [Cox 2016]. Finally, while it enjoys cash and in-kind funding for its activities, Toronto Metropolitan is an example of a center that has not be able to convert this support to permanent, ongoing funding. It continues to lobby for this and is hopeful that it will come. 39

These centers’ experiences speak to the importance of strong leadership during start up and operations. For example, the center at Indiana was almost leaderless for several years which meant that it struggled. It is now back on “surer feet” with a co-director model between the library and faculty. People with vision are needed to start a center, drive the process, and secure funding and administrative support [Coll et al. 2020] [Cummings 2020], [Zorich 2008]. They are able to gather together important stakeholders, often found among those already doing DH/DS at the institution, and funding. These partnerships and collaboration are important to create shared ownership and investment [Cummings 40

2020]. The Toronto Metropolitan interviewee stated that by doing this, the stakeholders would be able to help each other out and express a common focus for the center. It is important that this vision be articulated for a broad audience. For example, Nebraska posted a document that outlined the ways in which the center was started and built on efforts already present at the university [Edwards 2005]. Among these were decisions to make cluster hires in DH to broaden the research focus in the area on campus. Drs. Ives and Earheart [Ives and Earheart] wrote a white paper for the purpose of establishing a DH center at Texas A&M which led to funds to start a center. Efforts such as these gain support from senior administration who also have their own vision for a center. Often, it is because they want the university to be seen as leaders in DH/DS. Northeastern brought in the present director to build the center and quickly establish a presence in digital humanities and scholarship. Advantages to strong leadership exist. In particular, it can mean that the center is better able to survive the inevitable transitions of people and mandate [Zorich 2008]. However, this is not always guaranteed as is the case for Hamilton where the center's mandate and structure changed when senior management turned over. Ultimately, strong relationships with administration are needed along with financial backing and political capital [Cummings 2020]. Otherwise, as the Toronto Metropolitan interviewee expressed, it is a lot of work with few benefits.

41

The interviewees also expressed the importance and advantages of at least some base budget with minimal reliance of grant funding. At the best case, a center would not be in the position of Toronto Metropolitan where it is continually asking for funds and writing grants. Of course, these centers feel that they could always use more funding to hire staff and undertake more activities. With additional funds, Toronto Metropolitan would be able to make the center coordinator position full-time which would mean that the center could undertake more outreach and project support. In Princeton's case, they would hire a communication person. One advantage of some base budget is the ability to hire permanent staff which is good for morale. It also addresses some of the challenges of attracting and retaining staff when private sector salaries are often higher [Goldenberg--Hart 2016], [Lippincott et al. 2014], [Zorich 2008].

42

In terms of human resources, these centers tended to start small and offered services that could be supported by the staff and expertise available [Bergstrom 2016]. While they could not often offer competitive salaries and a clear career path for many staff [Lewis et al. 2015], [Prescott 2016], they could offer non-monetary rewards such as time for independent research projects, space, titles, professional development opportunities, new skill and knowledge development, and flexible work [Goldenberg--Hart 2016], [Lewis et al. 2015], [Lippincott et al. 2014], [Zorich 2008]. There are also clear advantages to undergraduate and graduate students working in the centers, offering training and working on faculty research projects [Goldenberg--Hart 2016]. As these centers found, they gained valuable skills and employment and opportunities for further training after graduation. However, this reliance on students comes at a potential cost with constant turnover [Lewis et al. 2015]. CUNY experiences this and finds that they are continually training new students. In terms of leadership, while there are advantages to a focus of one faculty member as a guiding force over a long period of time, a center needs to be able to transition to new leadership [Alexander and Davis 2012].

Conclusion

43

In conclusion, these ten centers are examples of ones which have successfully supported the faculty, staff, and students on their campuses. Their experiences provide insight into some of the primary services offered, staffing, funding, key factors for success and challenges and suggest some important implications for those wishing to start their own center. These results compliment the case studies highlighted above and reports on center start up written by other DH/DS centers [Handson and Ludwig], [Miller, 2016].

44

First, it is important to have champions at the faculty, library and senior administration levels who can articulate a vision for the center and develop the important partnerships and collaborations needed to start and sustain a center. They need to collaborate with stakeholders, such as the library, other research centers, faculties and departments, and researchers, whose goals and objectives align with the center's. As [Fraistat 2012] articulates, collaborative efforts are needed both within the center itself and with its partners. Part of the partnership building can be conducting an environmental scan and needs assessment to determine what is needed, what is available and who is interested in participating in the center [Kirk et al. 2017]. This information can be used to carefully evaluate the types of services, activities and programs which will be offered by the center. As these centers have found, it is often useful to start small

and grow organically and not try to do everything at once.

Second, in terms of budget, some level of base budget is beneficial. It provides certainty of funding from year to year and allows the center to hire permanent staff. These interviewees caution heavy reliance on grants. They can be useful for new programming and experiments, but one might find themselves in a cycle of always needing to write grant applications. 45

Third, graduate and undergraduate students and postdoctoral fellows are valuable resources for these centers and should be a part of any DH/DS center. There are many benefits to their involvement. They help advance faculty research, teach workshops and courses on DH/DS, provide project management in some cases and other activities. Just as importantly, the students and postdoctoral fellows gain valuable skills and expertise which leads to employment and further studies. The centers play an important role growing the next generation of humanities scholars and researchers. 46

Of course, these implications for practice are not magic formulas for DH/DS center start up and operations, but rather smart practices gleaned from the experience of ten centers with many years successful operation supported by case studies and other research. They provide guidance to those who are investigating the possibilities of a DH/DS on their campus or looking to revitalize existing centers. 47

Works Cited

Alexander and Davis 2012 Alexander, B. and Davis, R. F. (2012). *Should liberal arts campuses do digital humanities? Process and products in the small college world.* In Gold, M. K. (Ed.) *Debates in the digital humanities*. University of Minnesota Press.

Bergstrom 2016 Bergstrom, T. C. (2016). Digital scholarship centres: Converging space and expertise. In Mackenzie, A. & Martin, L. (Eds.) *Developing digital scholarship: Emerging practices in academic libraries.* Facet.

Coll et al. 2020 Coll, F., et al (2020). *Finding our way to a digital humanities community at Suny Oswego. IDEAH,* Vol. 1 No.1, pp.

Cox 2016 Cox, J. (2016). *Communicating new library roles to enable digital scholarship: A review article. New Review of Academic Librarianship,* Vol. 22 No.2-3, pp. 132-147.

Cummings 2020 Cummings, R., et al (2020). *Organic and locally sourced: Growing a digital humanities lab with an eye towards sustainability. Digital Humanities Quarterly,* Vol. 14 No.3, pp.

DeRose and Leonard 2020 DeRose, C. and Leonard, P. (2020). *Digital humanities on reserve: From reading room to laboratory at Yale University Library. Digital Humanities Quarterly,* Vol. 14 No.3, pp.

Edwards 2005 Edwards, R. (2005) *Creating the CDRH.* https://cdrh.unl.edu/about/creatingcdrh

Fraistat 2012 Fraistat, N. (2012). *The function of digital humanities centers at the present time.* In Gold, M. K. (Ed.) *Debates in the digital humanities*. Minneapolis, Minnesota, University of Minnesota Press.

Fraistat 2019 Fraistat, N. (2019). *Data first: Remodeling the digital humanities center.* In Gold, M. K. & Klein, L. F. (Eds.) *Debates in the digital humanities 2019.* University of Minnesota Press.

Goldenberg--Hart 2016 Goldenberg-Hart, D. (2016). *Planning a digital scholarship center 2016,* Coalition for Networked Information and Association of Research Libraries.

HITL, 2016 Humanities Intensive Learning and Teaching (2016) Building and sustaining a digital humanities center. https://dhtraining.org/hilt/course/building-and-sustaining-a-digital-humanities-center/(Last accessed January 11, 2022).

Handson and Ludwig Hanson, A. and Ludwig, D. *Task force on digital directions in the humanities: Final report* University of Kansas.

Ives and Earheart Ives, M. and Earheart, A. (nd). *DH white paper,* Texas A&M.

Kirk et al. 2017 Kirk, A., et al (2017). *Building capacity for digital humanities: A framework for institutional planning.*

Lewis et al. 2015 Lewis, V., et al (2015). *Building expertise to support digital scholarship: A global perspective*, Council on Library and Information Resources.

Lippincott and Goldenberg--Hart, 2014 Lippincott, J. K. and Goldenberg-Hart, D. (2014). *Digital scholarship centers: Trends and good practice,* Washington, D.C.

Lippincott et al. 2014 Lippincott, J. K., et al (2014b). Trends in digital scholarship centers. *EDUCAUSE Review Online,* Vol. pp.

Marshall and Rossman 1999 Marshall, C. and Rossman, G. B. (1999). *Designing qualitative research,* Thousand Oaks, CA, SAGE.

McCarty 2013 McCarty, W. (2013) Re: 26739 how to plan a digital humanities centre? *Humanist.*

McCracken McCracken, G. (1988). *The long interview,* Newbury Park, California, SAGE Publications.

Miller 2008 Miller, D. L., et al (2008). *The Center for Digital Humanities @ South Carolina: Proposal to establish an interdisciplinary center,* University of South Carolina.

Miller, 2016 Miller, A. (2016). DS/DH start-ups: A library model for advancing scholarship through collaboration. *Journal of Web Librarianship,* Vol. 10 No.2, pp. 83-100.

Mitchem and Rice 2017 Mitchem, P. P. and Rice, D. M. (2017). Creating digital scholarship services at Appalachian State University. *portal: Libraries and the Academy,* Vol. 17 No.4, pp. 827-841.

Oiva 2020 Oiva, M. (2020). The chili and honey of digital humanities research:The facilitation of the interdisciplinary transfer of knowledge in digital humanities centers. *Digital Humanities Quarterly,* Vol. 14 No.3, pp.

Pawlicka-Deger 2020a Pawlicka-Deger, U. (2020a). The laboratory turn: Exploring discourses, landscapes, and models of humanities labs. *Digital Humanities Quarterly,* Vol. 14 No.3, pp.

Pawlicka-Deger 2020b Pawlicka-Deger, U. (2020b). Place matters: Thinking about spaces for humanities practices. *Arts and Humanities in Higher Education,* Vol. pp. 1474022220961750.

Phillips et al 2020 Phillips, N., et al (2020). Creating spaces for interdisciplinary research across literature, neuroscience, and dh: A case study of the Digital Humanities and Literary Cognition Lab (dhlc). *Digital Humanities Quarterly,* Vol. 14 No.3, pp.

Prescott 2016 Prescott, A. (2016). Beyond the digital humanities center: The administrative landscapes of the digital humanities. In Schreibman, S., Siemens, R. & Unsworth, J. (Eds.) *A new companion to digital humanities.* Oxford, John Wiley & Sons.

Risam et al, 2017 Risam, R., et al (2017). Building an ethical digital humanities community: Librarian, faculty, and student collaboration. *College & Undergraduate Libraries,* Vol. 24 No.2-4, pp. 337-349.

Rosenblum and Dywer 2016 Rosenblum, B. and Dwyer, A. (2016). Copiloting a digital humanities center: A critical reflection on a libraries–academic partnership. In White, J. W. & Gilbert, H. (Eds.) *Laying the foundation: Digital humanities in academic libraries.* West Lafayette, Indiana, Purdue University Press.

Rubin and Rubin 1995 Rubin, H. J. and Rubin, I. S. (1995). *Qualitative interviewing: The art of hearing data,* Thousand Oaks, CA, SAGE Publications.

Sample 2010 Sample, M. (2010). On the death of the digital humanities center. https://samplereality.com/2010/03/26/on-the-death-of-the-digital-humanities-center/ (accessed May 14, 2021).

Sanders 2019 Sanders, S. (2019). ““Assessing the missions of digital humanities centers”” Museum Studies Digital Curation Certificate Program, John Hopkins University.

Simons and Nieves 2019 Simons, J. and Nieves, A. D. (2019). #dhsiyearmodels: Models for dh at liberal arts colleges and four-year institutions. In Crompton, C., Lane, R. J. & Siemens, R. (Eds.) *Doing more digital humanities: Open approaches to creation, growth, and development.* London, Routledge.

Stumpf 2013 Stumpf, M. (2013) How to plan a digital humanities centre? *Humanist.*

Unsworth 2007 Unsworth, J. (2007) Digital humanities centers as cyberinfrastructure. In: Digital Humanities Centers Summit. Washington, D.C.

Unsworth 2013 Unsworth, J. (2013) Re: 26793 how to plan for a digital humanities centre? *Humanist.*

Zorich 2008 Zorich, D. M. (2008). *A survey of digital humanities centers in the United States,* Council on Library and Information Resources (CLIR).

centerNet 2022 centerNet (2022). “Resources for starting and sustaining digital humanities centers.” https://dhcenternet.org/resources-for-starting-and-sustaining-dh-centers/(Last accessed February 8, 2022)

This work is licensed under a Creative Commons Attribution-NoDerivatives 4.0 International License.