DH For Department Chairs and Deans

John Unsworth
Harold Short
Ray Siemens
Constance Crompton
Dene Grigar
Angel David Nieves
Welcome to DHSI 2018!

Thanks for joining the DHSI community!

In this booklet, you will find essential course materials prefaced by some useful information about getting settled initially at UVic, finding your way around, getting logged in to our network (after you’ve registered the day before our courses begin), and so on.

Given our community’s focus on things computational, it will be a surprise to no one that we might expect additional information online for some of the classes - your instructors will let you know - or that the most current version of all DHSI-related information may be found on our website at dhsi.org.

To access the DHSI wifi network, simply go into your wireless settings and connect to the “DHSI” network and enter the password “dhsi2018”.

And please don’t hesitate to be in touch with us at institut@uvic.ca or via Twitter at @AlyssaA_DHSI or @DHInstitute if we can be of any help ....
Regional Map of Greater Victoria

Average Frequency
- **Regional Route**: 15–60 minute service with limited stops
- **Frequent Route**: 15 minute or better service; 7am-7pm, Mon-Fri
- **Local Route**: 20–120 minute service

Legend
- Direction of Travel
- Route Name
- Transit Exchange
- Park & Ride Lot (no overnight parking)
- Major Stop

Regional Map of Greater Victoria
The 2018 schedule is just about ready! A very few things to confirm, add, etc, but this is the place to be to find out what is happening when / where ... 

Psst: Some Suggested Outings

If you're here a day or two before we begin, or staying a day or two afterwards, here are a few ideas of things you might consider doing ....

▼ Suggested Outing 1, Botanical Beach (self-organised; car needed)
A self-guided visit to the wet, wild west coast tidal shelf (and historically-significant former research site) at Botanical Beach; we recommend departing early (around 8.00 am) to catch low tide for a better view of the wonderful underwater life! Consider bringing a packed lunch to nibble-on while looking at the crashing waves when there, and then have an afternoon drink enjoying the view from the deck of the Port Renfrew Hotel.

▼ Suggested Outing 2, Butchart Gardens (self-organised)
A shorter journey to the resplendently beautiful Butchart Gardens and, if you like, followed by (ahem) a few minutes at the nearby Church and State Winery, in the Saanich Peninsula. About an hour there by public bus from UVic, or 30 minutes by car.

▼ Suggested Outing 3, Saltspring Island (self-organised; a full day, car/bus + ferry combo)
Why not take a day to explore and celebrate the funky, laid back, Canadian gulf island lifestyle on Saltspring Island? Ferry departs regularly from the Schwartz Bay ferry terminal, which is about one hour by bus / 30 minutes by car from UVic. You may decide to stay on forever ....

▼ Suggested Outing 4, Paddling Victoria's Inner Harbour (self-organised)
A shorter time, seeing Victoria's beautiful city centre from the waterways that initially inspired its foundation. A great choice if the day is sunny and warm. Canoes, kayaks, and paddle boards are readily rented from Ocean River Adventures and conveniently launched from right behind the store. Very chill.

And more!
Self-organised High Tea at the Empress Hotel, scooter rentals, visit to the Royal BC Museum, darts at Christies Carriage House, a hangry breakfast at a local diner, whale watching, kayaking, brew pub sampling (at Spinnaker's, Swans, Moon Under Water, and beyond!), paddle-boarding, a tour of used bookstores, and more have also been suggested!

Sunday, 3 June 2018 [DHSI Registration + Suggested Outings]

9:00 to 4:00
▼ Early Class Meeting: 4. [Foundations] DH For Department Chairs and Deans (Hickman 120, Classroom)
Further details are available from instructors in mid May to those registered in the class. Registration materials will be available in the classroom.

3:00 to 5:00
DHSI Registration (MacLaurin Building, Room A100)
After registration, many will wander to Cadboro Bay and the pub at Smuggler's Cove OR the other direction to Shelbourne Plaza and Maude Hunter's Pub OR even into the city for a nice meal.

Monday, 4 June 2018

Your hosts for the week are Alyssa Arbuckle, Ray Siemens, and Dan Sondheim.

7:45 to 8:15
Last-minute Registration (MacLaurin Building, Room A100)

8:30 to 10:00
Welcome, Orientation, and Instructor Overview (MacLaurin A144)
12:15 to 1:15

4:10 to 5:00

Classes in Session (click for details and locations)

- 1. [Foundations] Text Encoding Fundamentals and their Application (Cornett A128, Classroom)
- 3. [Foundations] Making Choices About Your Data (MacLaurin D109, Classroom)
- 4. [Foundations] DH For Department Chairs and Deans (Hickman 120, Classroom)
- 5. [Foundations] Introduction to Javascript and Data Visualization (Clearihue D132, Classroom)
- 6. [Foundations] Introduction to Computation for Literary Criticism (Clearihue A195, Lab)
- 7. Out-of-the-Box Text Analysis for the Digital Humanities (Human and Social Development A160, Lab)
- 8. Sounds and Digital Humanities (MacLaurin D111, Classroom)
- 9. Digital Humanities Pedagogy: Integration in the Curriculum (MacLaurin D016, Classroom)
- 10. Text Processing - Techniques & Traditions (McPherson Library A003, Classroom)
- 11. 3D Modelling for the Digital Humanities and Social Sciences (MacLaurin D010, Classroom)
- 12. Conceptualising and Creating a Digital Edition (MacLaurin D103, Classroom)
- 13. Visualizing Information: Where Data Meets Design (MacLaurin D107, Classroom)
- 14. Introduction to Electronic Literature in DH: Research and Practice (MacLaurin D115, Classroom)
- 15. Race, Social Justice, and DH: Applied Theories and Methods (MacLaurin D105, Classroom)
- 16. Introduction to IIIF: Sharing, Consuming, and Annotating the World’s Images (MacLaurin D114, Classroom)
- 17. XML Applications for Historical and Literary Research (Clearihue A103, Lab)
- 18. Processing Humanities Multimedia (Human and Social Development A150, Lab)
- 19. Digital Games as Tools for Scholarly Research, Communication and Pedagogy (MacLaurin D110, Classroom)
- 20. Web APIs with Python (Human and Social Development A170, Lab)
- 21. Ethical Data Visualization: Taming Treacherous Data (MacLaurin D101, Classroom)
- 22. Digital Publishing in the Humanities (Clearihue D131, Classroom)
- 23. Linked Open Data and the Semantic Web (Clearihue D130, Classroom)
- 24. Introduction to IIIF: Sharing, Consuming, and Annotating the World’s Images (MacLaurin D114, Classroom)
- 25. Feminist Digital Humanities: Theoretical, Social, and Material Engagements (Cornett A229, Classroom)
- 26. The Frontend: Modern JavaScript & CSS Development (Clearihue A030, Classroom)

10:15 to Noon

Lunch break / Unconference Coordination Session (MacLaurin A144)

(Grab a sandwich and come on down!)

Undergraduate Meet-up, Brown-Bag (details via email)

1:30 to 4:00

Classes in Session

Institute Panel: Perspectives on DH (or, #myDHis …)
Chair: Alyssa Arbuckle (U Victoria)
(MacLaurin A144)

- Milena Radzikowska (Mt Royal C): "Release the Kraken: Story-Driven Prototyping for the Digital Humanities."
  - Abstract: I have spent the last 15 years of my career designing text analysis tools for use by humanities scholars. In this brief presentation, I propose to share a concept-based approach to interface design for DH.

- Emily Murphy (U Victoria): "#MyDHis Edgy."
  - Abstract: I will build upon—or, possibly, perform a misprision of—a tweet by Polina Vinogradova; "#myDHis messy, dusty, edgy, and radically inclusive!" Vinogradova evokes the mess and dust of the archives, the edges that connect nodes of a network, and the political impetus to think of cultural history and community together. I argue that these aspects of DH have a renewed importance as we head into a moment of feminist historiography.

- Margaret Konkol (Old Dominion U): "Prototyping Mina Loy’s Alphabet with a 3D Printer."
  - Abstract: This talk discusses the interpretive and methodological implications of using 3D printing technologies to prototype the archival diagrams of a proposed but never constructed plastic segmental alphabet letter kit—a game designed by modernist poet Mina Loy for F.A.O Schwarz. Although intended as a toy for young children, "The Alphabet that Builds Itself," as a work of “object typography” articulates a theory of language as kinetic, geometric, recombinant, and open to mutation. Alphabetic segments extend into the x, y, and z coordinates in exponential iterations and conjoin with magnets. Combining elements of contemporaneous typefaces like Futura and Gill Sans, which represented modernity’s functional ideals and democratic principles of simplicity, these recombinant letters represent, as this talk argues, Loy’s unpublished modernist poem, an articulation of Loy’s concept of language as a physical fact in which substance, not just form, is semantic.

- Lee Zickel (Case Western Reserve U): "Comfortably Trepid."
  - Abstract: #myDHis found outside the well-established, DH-friendly institutions, at an institution that is devoted predominantly to Medicine and Engineering. I, and with increasing frequency other DH practitioners and instructors, am not positioned in a DH Lab or Humanities Center, but in ITS. Part teacher, part technologist, part translator, I will briefly discuss my work supporting humanists and social scientists, particularly those who are new to or less comfortable with computational methodologies.

- Dorothy Kim (Vassar C): "#MyDHis Antifascist."
  - Abstract: I've spent a lot of time in the last 12 months thinking about fascism, digital humanities, its long histories, and what it means to do DH work that centers social justice particularly in this global rise of late fascism. I will speak briefly about DH’s history, including the medieval history related to Busa but how that history really connects to data systems that created the Holocaust and also participated in the Cold War nuclear military complex.
Randa El Khatib (U Victoria): "Learning from the Iterative Process."
Abstract: #MyDHis Iterative. In addition to the improvements that come with iterative projects, the iterative process itself is a fruitful area for scholarly inquiry. Within this iterative context, the various teams that I work with and I have been reflecting on and rethinking central DH practices, such as what it means to collaborate, prototype, remix, and implement DH values in our work. In this talk, I will present the various lessons learnt along the way.

Sarah Melton (Boston C): "#MyDHis...People."
Abstract: Taking seriously Miriam Posner’s exhortation to “commit to DH people, not DH projects,” I invite us to reflect on how people are the core of DH. In this brief talk, I will explore the intersections between DH, labor, and infrastructure.

| 5:00 to 6:00 | Opening Reception ([University Club](#))
We are grateful to Gale Cengage for its sponsorship. |

**Tuesday, 5 June 2018**

9:00 to Noon
Classes in Session

12:15 to 1:15
Lunch break / Unconference
"Mystery" Lunches

- DHSI Lunchtime Workshop Session ([click for workshop details and free registration for DHSI participants](#))
  - 73. Introduction to ORCID ([Digital Scholarship Commons](#), Classroom).

1:30 to 4:00
Classes in Session

- DHSI Colloquium Lightning Talk Session 1 ([MacLaurin A144](#))
  Chair: James O'Sullivan
  - New Modes of DH and Archival Skills Acquisition in a Graduate Public History Course. Paulina Rousseau (Ryerson U)
  - Walking a Transect: Exploring a Soundscape. John Barber (Washington State U)
  - Centering the Edge Case: Designing Services for Humanities Data Research. Grace Afsari-Mamagani (New York U)
  - Orwellian Vocabulary and the 21st-Century Politics. Ilgin Kizilgunesler (U Manitoba)
  - Making Open Data from a Gray Archive. Sara Palmer (Emory U)

6:00 to 8:00
DHSI Newcomer's Beer-B-Q ([Felicitas, Student Union Building](#))

**Wednesday, 6 June 2018**

9:00 to Noon
Classes in Session

12:15 to 1:15
Lunch break / Unconference
"Mystery" Lunches

- Brown Bag Lecture: Alexandra Branzan Albu (U Victoria): "Visual Recognition of Symbolic and Natural Patterns" ([Digital Scholarship Commons, 3rd Floor McPherson Library](#))

Abstract: Image-based object recognition is a visual pattern recognition problem; one may characterize visual patterns as either symbolic or natural. Symbolic patterns evolved for human communication; they include but are not limited to text, forms, tables, graphics, engineering drawings etc. Symbolic patterns vary widely in terms of size, style, language, alphabet and fonts; however, literate humans can easily compensate for this variability and instantly recognize most symbolic patterns. On the other hand, natural patterns characterize images of physical structures; they often lack the intrinsic discriminability and structure of symbolic patterns, and vary widely in terms of pose, perspective, and lighting.

This lecture will explore similarities and differences in approaches designed for recognizing visual and symbolic patterns, and will address the following questions via examples.
- What are the distinctive characteristics of natural patterns? What dimensions of variability can we infer?
- What are the distinctive characteristics of symbolic patterns? What dimensions of variability can we infer?

Alexandra Branzan Albu is an Associate Professor with the Department of Electrical and Computer Engineering and cross-listed with Computer Science. Her research interests are related to image analysis, computer vision, and visual computing. She is actively pursuing outreach activities dedicated to increasing the women's presence in electrical engineering and computer science.

1:30 to 4:00
Classes in Session
4:15 to 5:15

- Defining a Taxonomy of Abandonment for Online Digital Humanities Projects. Luis Meneses (Electronic Textual Cultures Lab, U Victoria) and Jonathan Martin (King's College London)
- The Stories We Tell: Representing Gay and Lesbian History through Digital Technologies in the LGLC Project. Nadine Boulay (Simon Fraser University) and Ewan Matthews (Ryerson U)
- Italian Paleography in the Digital Domain. Isabella Magni (Newberry Library)
- Digital Humanities, A Question of Ethics. Negar Basiri (Louisiana State U)
- Writing Poetry in High School. Guadalupe Echegoyen (National Autonomous U Mexico)

6:00 to 7:00

"Half Way There!" [An Informal, Self-Organized Birds of a Feather Get-Together] (Felicitas, Student Union Building)

Bring your DHSI nametag and enjoy your first tipple on us!

Thursday, 7 June 2018

9:00 to Noon

Classes in Session

12:15 to 1:15

- UVIC Library/ETCL lunchtime talk: “A Humanities Application of 3D printing and Machine Translation in the ChessBard and Loss Sets” by Dr. Aaron Tucker
- Digital Scholarship Commons, 3rd floor, Mearns Centre for Learning / McPherson Library
- Bring your lunch and come on up!)

[Instructor lunch meeting]

1:30 to 4:00

Classes in Session

4:15 to 5:15

- Documenting Deportation: A Collaborative Digital Collection. Paulina Rousseau (Ryerson U)
- Unleashing the Power of Texts as Networks: Visualizing the Scholastic Commentaries and Texts Archive. Jeffrey Witt (Loyola U Maryland) and Drew Winget (Stanford U)
- #haunteDH: Punching holes in the International Busa Machine Narrative. Arun Jacob (McMaster U)
- Text in World: Computational Analysis of Trauma in Genocide Narratives. Nanditha Narayananamoorthy (U York) and Krish Perumal (U Toronto)

7:30 to 9:30

(Groovy?) Movie Night (MacLaurin A144)

Friday, 8 June 2018 [DHSI; DLFxDHSI Opening]

9:00 to Noon

DHSI Classes in Session

12:15 to 1:15

DHSI Lunch Reception / Course E-Exhibits (MacLaurin A100)

1:00 to 2:00

DLFxDHSI Registration (MacLaurin A100)

1:30 to 1:50

[DHSI] Remarks, A Week in Review (MacLaurin A144)

2:00 to 3:00

- Joint Institute Lecture (DHSI and DLFxDHSI): Bethany Nowviskie (CLIR DLF and U Virginia): "Reconstitute the World: Machine-reading Archives of Mass Extinction"
  Chair: Lisa Goddard (U Victoria) (MacLaurin A144)

Abstract: The basic constitution of our digital collections becomes vastly more important in the face of two understandings: first, that archives of modernity are archives of the sixth great mass extinction of life on our planet; and next, that we no longer steward cultural heritage for human readers alone. In the same way that we are shaped by what we read, hear, and see, the machine readers that follow us into and perhaps beyond the Anthropocene have begun to learn from "unsupervised" encounters with our digital libraries. What will we preserve for the living generations and artificial intelligences that will come? What do we neglect, or even choose to extinguish? And from an elegiac archive, a library of endings, can we create forward-looking, speculative collections--collections from which to deep-dream new futures? The most extra/ordinary power we possess is the power to make poetry from records of the past. Could it be called on, one day, to reconstitute the world?
Joint Reception: DHSI and DLFxDHSI (University Club)

DLFxDHSI Poster/Demo Session
- Mediers as a Colonialist Artifact in Menzies' Journal. Paula Johanson (U Victoria)
- Camp Edit: the Institute for the Editing of Historical Documents. Nikolaus Wasmoen (Association for Documentary Editing, U Buffalo), Jennifer Stertz (Association for Documentary Editing, U Virginia), and Cathy Moran Hajo (Association for Documentary Editing, Ramapo C)
- A Digital Archaeology of Life in Cleveland’s Depression-Era Slums. Charlie Harper (Case Western Reserve U) and Jared Bendis (Case Western Reserve U)
- Feminist Pest Control: controlling and not controlling nonhuman pests. Lindsay Garcia (C of William and Mary)
- Legends of the Buddhist Saints. Jonathan S. Walters (Whitman C) and Dana Johnson (Freelance Web Developer)
- Accessibility in Digital Environments Via TEI-Encoded Uncontracted Braille. Gia Alexander (Texas A&M U)
- Translation3point0: Why Literary Translation Data Matters. Katie King (U Washington)
- PoéticaSonora: A Digital Audio Repository Prototype for Latin American Sound Art and Poetry. Aurelio Meza (Concordia U)
- Beauty and the Book: Pre-Raphaelite Artistic Practice Contained. Josie Greenhill (U Victoria)
- Poetic Procedures/Digital Deformances. Corey Sparks (California State U, Chico)
- Miranda, the Folger Shakespeare Library’s new Digital Asset Platform. Meaghan Brown (Folger Shakespeare Library)
- Living Song Project. Quinn Patrick Ankrum (U Cincinnati) and Elizabeth Avery (U Oklahoma)
- Digital Frankenstein Variorum. Rikk Mulligan (Carnegie Mellon U)

8:30 to 9:00 DLFxDHSI Registration (MacLaurin A100)

9:00 to 5:30 DLFxDHSI UnConference Sessions

9:00 to 4:00 DHSI All Day Workshop Session (click for workshop details and free registration for DHSI participants)

9:00 to 5:00 DHSI Colloquium Day Conference (MacLaurin A144)

Welcome

People I: Documenting Online Lives. Chair: Molly Nebiolo (University of New York)
- Examining Gendered Harassment Online and in Silicon Valley. Andrea Flores (Utica College)
- This is Just to Say I Have <X> the <Y> in your <Z>: Modernist Memes in an Era of Public Apology. Shawna Ross (Texas A&M University)

Break

People II: Documenting Lives Online. Chair: Dheepa Sundaram (College of Wooster)
- Youtube Yoga and Ritual on Demand: The Virtual Economics of Hindu Soteriology. Dheepa Sundaram (College of Wooster)
- The Resemblage Project: Creativity and Digital Health Humanities in Canada. Andrea Charise (University of Toronto) and Stefan Krecsy (University of Toronto)

Lunch

Projects I: Building and Analyzing. Chair: Yannis Rammos (New York University)
- Building the ARTECHNE Database: New directions in Digital Art History. Marieke Hendriksen (Old Dominion University)
- The Ineffective Inquisition: The Holy Office’s Sphere of Influence in Early Modern New Spain. Kira Homo (Pennsylvania State University)

Break

Projects II: Mapping and Visualizing. Chair: Innocent Opara (Qumet Institute)
- Mapping Sarah Sophia Bank’s Numismatic Collection. Erica Hayes (North Carolina State University) and Kacie Wills (University of California, Riverside)
- Text Mining and Visualizing 18th Century American Correspondence. Ashley Sanders Garcia (University of California, Los Angeles)

Break

Practices: Digital Scholarship on Campus and in the Classroom. Chair: Alyssa Arhuckle (University of Victoria)
Concluding Remarks

**Sunday, 10 June 2018 [SINM + DHSI Registration, Workshops]**

8:30 to 9:00  Symposium on Indigenous New Media Registration (MacLaurin A100)

9:00 to 5:00  DHSI Registration (MacLaurin A100)

9:00 to 4:00  ▼  SINM Sessions
  - 63. Symposium on Indigenous New Media: Reading Group (Hickman 105, Classroom)
  - 72. Symposium on Indigenous New Media: Indigitization (Hickman 120, Classroom)
  [Full details here](#)

9:00 to 4:00  ▼  DHSI All Day Workshop Sessions  
  [click for workshop details and free registration for DHSI participants](#)
  - 53. Building Your Academic Digital Identity (MacLaurin D105, Classroom)
  - 54. An Introduction to the Archaeology of 1980s Computing (MacLaurin D114, Classroom)

9:00 to Noon  ▼  DHSI AM Workshop Sessions  
  [click for workshop details and free registration for DHSI participants](#)
  - 55. Regular Expressions (MacLaurin D111, Classroom)
  - 56. 3D Visualization for the Humanities (MacLaurin D010, Classroom)
  - 58. DH Fieldwork Methods (MacLaurin D016, Classroom)
  - 60. Pedagogy of the Digitally Oppressed: Inculcating De-/Anti-/Post-Colonial Digital Humanities (MacLaurin D107, Classroom)
  - 61. Introduction to #GraphPoem. Digital Tools for Poetry Computational Analysis and Graph Theory Apps in Poetry (MacLaurin D101, Classroom)
  - 62. Creating a CV for Digital Humanities Makers (MacLaurin D115, Classroom)

1:00 to 4:00  ▼  DHSI PM Workshop Sessions  
  [click for workshop details and free registration for DHSI participants](#)
  - 64. Agent-Based Modelling in the Humanities (MacLaurin D111, Classroom)
  - 65. Unleash Linux on MacOS (MacLaurin D010, Classroom)
  - 66. DHSI Knits: History of Textiles and Technology (MacLaurin D016, Classroom)
  - 67. Crowdsourcing as a Tool for Research and Public Engagement (MacLaurin D109, Classroom)
  - 69. Web Annotation as Critical Humanities Practice (MacLaurin D103, Classroom)
  - 70. Dynamic Ontologies for the Humanities (MacLaurin D107, Classroom)
  - 71. Social Media Research in the Humanities (MacLaurin D101, Classroom)

4:10 to 5:00  ▼  Joint Institute Lecture (DHSI and SINM):  
  Chair: Deanna Reder (Simon Fraser U) (MacLaurin A144)

Abstract: Following the 1997 launch of Skawennati's (Mohawk) CyberPowWow, digital space has become a vital new territory for the resurgence of Indigenous storytelling and cultural practice: "We have signed a new treaty," Cree artist Archer Pechawis wrote of this period, "and it is good. We have the right to hunt, fish, dance and make art at www.CyberPowWow.net, .org and .com for as long as the grass grows and the rivers flow." This talk will critically explore the theoretical, cultural, political-economic, and gendered dynamics underwriting the histories and futures of Indigenous new media. Particular attention will be given in examining the ways in which new media and digital storytelling connect to and support key issues in the field of Indigenous studies, such as sovereignty, self-determination, decolonization, and land rights.

After the day, many will wander to Cadboro Bay and the pub at Smuggler's Cove OR the other direction to Shelbourne Plaza and Maude Hunter's Pub OR even into the city for a bite to eat.

**Monday, 11 June 2018 [DHSI + SINM]**

- Digital Humanities in Latin American Studies: Cybercultures Initiative. Angelica Huizar (Old Dominion University)
- Making it Seem Easy: Interdisciplinary Team Defines and Measures DH interest at SUNY Oswego. Serenity Sutherland (SUNY Oswego), Fiona Coll (SUNY Oswego), Sarah Weisman (SUNY Oswego), Candis Haak (SUNY Oswego), and Mural Yasar (SUNY Oswego)
- ARL Digital Scholarship Institute. Sarah Melton (Boston College)
Your hosts for the week are Ray Siemens and Dan Sondheim.

7:45 to 8:15  DHSI Last-minute Registration (MacLaurin A100)

8:30 to 10:00  DHSI Welcome, Orientation, and Instructor Overview (MacLaurin A144)

9:00 to 4:00  SINM Sessions

10:15 to Noon  DHSI Classes in Session (click for details and locations)
   ▼  27. [Foundations] Understanding The Predigital Book: Technology and Texts (McPherson Library A003, Classroom)
   ▼  28. [Foundations] Developing a Digital Project (With Omeka) (Clearihue D132, Classroom)
   ▼  29. [Foundations] Models for DH at Liberal Arts Colleges (& 4 yr Institutions) (MacLaurin D109, Classroom)
   ▼  32. Stylometry with R: Computer-Assisted Analysis of Literary Texts (Clearihue A102, Lab)
   ▼  33. Digital Storytelling (MacLaurin D111, Classroom)
   ▼  34. Text Mapping as Modelling (Clearihue D131, Classroom)
   ▼  35. Geographical Information Systems in the Digital Humanities (Clearihue A105, Lab)
   ▼  36. Open Access and Open Social Scholarship (MacLaurin D115, Classroom)
   ▼  37. Introduction to Machine Learning in the Digital Humanities (Cornett A128, Classroom)
   ▼  38. Queer Digital Humanities: Intersections, Interrogations, Iterations (MacLaurin D110, Classroom)
   ▼  41. Using Fedora Commons / Islandora (Human and Social Development A160, Lab)
   ▼  42. Documenting Born Digital Creative and Scholarly Works for Access and Preservation (MacLaurin D115, Classroom)
   ▼  43. Games for Digital Humanists (MacLaurin D016, Classroom & Human and Social Development A170, Lab)
   ▼  44. XPath for Document Archeology and Project Management (Cornett A128, Classroom)
   ▼  46. Surveillance and the Digital Humanities (MacLaurin D103, Classroom)
   ▼  47. Text Analysis with Python and the Natural Language ToolKit (Clearihue A103, Lab)
   ▼  48. Information Security for Digital Researchers (Clearihue D130, Classroom)
   ▼  49. Wrangling Big Data for DH (Human and Social Development A150, Lab)
   ▼  50. Accessibility & Digital Environments (MacLaurin D101, Classroom)
   ▼  51. Critical Pedagogy and Digital Praxis in the Humanities (MacLaurin D105, Classroom)
   ▼  52. Drupal for Digital Humanities Projects (MacLaurin D107, Classroom)

12:15 to 1:15  Lunch break / Unconference Coordination Session (MacLaurin A144)
   (Grab a sandwich and come on down!)
   DHSI Undergraduate Meet-up, Brown-Bag (details via email)

1:30 to 4:00  DHSI Classes in Session

4:10 to 5:00  Joint Institute Lecture (DHSI and SINM):
   Jordan Abel (Simon Fraser U): "Indigeneity, Conceptualism, and the Borders of DH."
   Chair: Michelle Brown (U Hawaii) (MacLaurin A144)

Abstract: This talk brings together digital humanities discourses in computational textual analysis and Indigenous Literary Studies to analyze a corpus comprised of every book of Indigenous poetry published in Canada, extending from Pauline Johnson’s 1895 book The White Wampum to Marilyn Dumont’s 2015 book The Pemmican Eaters. While the main goal of this research project initially centered on the topic modeling of a corpus of Indigenous poetry, the project also addresses the systemic barriers that have prevented such work gaining traction, and likewise attempts to address the specific challenges that Indigenous writing (and in particular Indigenous poetry) present to current Digital Humanities methodologies.

5:00 to 6:00  Joint Reception: DHSI and SINM (University Club)

Tuesday, 12 June 2018

9:00 to Noon  Classes in Session

12:15 to 1:15  Lunch break / Unconference
   "Mystery" Lunches
   ▼  DHSI Lunchtime Workshop Session (click for workshop details and free registration for DHSI participants)
   ▼  73. Introduction to ORCID (Digital Scholarship Commons, Classroom)
### Wednesday, 13 June 2018

- **1:30 to 4:00**
  - DHSI Colloquium Lightning Talk Session 4 (MacLaurin A144)
    - Chair: Lindsey Seatter
    - - Mapping Indigenous and Chicana/o Environmental Imaginaries using GIS. Stevie Ruiz (California State U, Northridge), Quetzalli Enrique (California State U, Northridge), Enrique Ramirez (California State U, Northridge), and Tomas Figueroa (California State U, Northridge)
    - - Doing DH with Graphic Narratives. John Barber (Washington State U)
    - - “But is it any good?”: A quantitative approach to the popularity of digital fanfiction. Suzanne Black (U Edinburgh)
    - - The American Prison Writing Archive (APWA). Doran Larson (Hamilton C), Janet Simons (Digital Humanities Initiative, Hamilton C), and William Rasenberger (Hamilton C)

- **4:15 to 5:15**
  - DHSI Colloquium Lightning Talk Session 5 (MacLaurin A144)
    - Chair: Lindsey Seatter
    - - Faraway, so close: Has the political environment really changed in Ecuador?. Luis Meneses (Electronic Textual Cultures Lab, U Victoria)
    - - Re-mixing Melville's Reading: Text Analysis of Marginalia with R and XSLT. Christopher Ohge (U London, School of Advanced Study) and Steven Olsen-Smith (Boise State U)
    - - Developing Interactive and Open-Source OER: Inquiry-Based Music Theory. Evan Williamson (U Idaho)
    - - Spatial Humanities and the Web of Everywhere. Ken Cooper (SUNY Geneseo)

- **6:00 to 7:00**
  - "Half Way There (yet again)!" [An Informal, Self-Organized Birds of a Feather Get-Together] (Felicitas, Student Union Building)
    - Bring your DHSI nametag and enjoy your first tipple on us!

### Thursday, 14 June 2018

- **9:00 to Noon**
  - Classes in Session

- **12:15 to 1:15**
  - Lunch break / Unconference
    - "Mystery" Lunches

- **1:30 to 4:00**
  - DHSI Colloquium Lightning Talk Session 6 (MacLaurin A144)
    - Chair: Lindsey Seatter
    - - Composition not Inheritance: Imagining a Functional Digital Humanities. Andrew Pilsch (Texas A&M U)
    - - Plotting Our Trajectories: Navigating, Situating, and Re-Inventing Research Topoi with R. Sean McCullough (Texas Christian University) and Jongkeyong Kim (Texas Christian U)
    - - Herb Simon and His Books. Avery Wiscomb (Carnegie Mellon U) and Daniel Evans (Carnegie Mellon U)
    - - (De/Re)Defining “The Digital”: A Decolonial Approach to Digital Humanities. Ashley Caranto Morford (U Toronto) and Arun Jacob (McMaster U)

- **7:30 to 9:30**
  - (Groovier?) Movie(r) Night (MacLaurin A144)

### Friday, 15 June 2018

- **9:00 to Noon**
  - Classes in Session

- **12:15 to 1:15**
  - Lunch Reception / Course E-Exhibits (MacLaurin A100)
1:30 to 2:30

Institute Lecture: William Bowen (U Toronto Scarborough): “Discovery, Collaboration and Dissemination: Lessons Learned and Plans for the Future” (MacLaurin A144)

Abstract: Much has changed and continues to change in digital humanities since the formal establishment of Iter in the Fall of 1997. However, the mandate of the not-for-profit partnership to support “the advancement of learning in the study and teaching of Middle Ages and Renaissance (400–1700) through the development and distribution of online resources” continues to have relevance. This presentation explores the striking challenges faced by Iter and presents our current thinking on the realization of this mandate for the future through a platform with a focus on facilitating the discovery of the academic resources necessary to our work; creating an environment for collaboration, sharing and developing projects; and on enabling the distribution and publication of our scholarship.

2:40 to 3:00

Awards and Bursaries Recognition
Closing, DHSI in Review (MacLaurin A144)

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Digital Humanities for Department Chairs and Deans
John Unsworth, Harold Short, and Ray Siemens, with Constance Crompton, Dene Grigar, and Angel David Nieves

Overview (locations as per DHSI schedule, http://www.dhsi.org/schedule.php)
- Sunday 3 June 2018, 9.00 am – 4.00 pm
  - Session 1: Defining Digital Humanities
  - Session 2: Organizing Digital Humanities
  - Session 3: Engaging in Digital Humanities
- Monday 4 June, 2.00-4.00
  - 2.00-2.30: Touching base on audited courses
  - 2.30-3.15: Discussion of selected workshop topic
  - 3.15-4.00: Speaker: Constance Crompton (U Ottawa), on coming into the faculty role as a DH scholar
- Tuesday 5 June, 2.00-4.00
  - 2.00-2.30: Touching base on audited courses
  - 2.30-3.15: Discussion of selected workshop topic
  - 3.15-4.00: Speaker: Dene Grigar (Washington State, Vancouver), on practicing and building DH as a faculty member
- Wednesday 6 June, 2.00-4.00
  - 2.00-2.30: Touching base on audited courses
  - 2.30-3.15: Discussion of selected workshop topic
  - 3.15-4.00: Speaker: Angel David Nieves (Yale U / Hamilton C), on practicing and building DH as a faculty member
- Thursday 7 June, 2.00-4.00
  - 2.00-2.30: Touching base on audited courses
  - 2.30-3.15: Discussion of selected workshop topic
  - 3.15-4.00: Case Study
- Otherwise: Observing DHSI classes as non-participatory auditors.
  - To help plan auditing visits, course paks (which include outlines, and related materials) can be found at http://www.dhsi.org/content/2018Curriculum/ by May.

Description
- Intended for university administrators who seek an understanding of the Digital Humanities that is both broad and deep, this offering establishes a cohort that [1] meets as a group for two dedicated sessions before the first day of DHSI (on the Sunday beforehand) and one dedicated session each afternoon 2.00-4.00 pm Monday to Thursday to survey and discuss pragmatic DH basics and chief administrative issues related to supporting DH and those who practice it at their institution, [2] allows those enrolled to audit (as non-participatory observers, able to go from class to class) any and all of the DHSI courses, and [3] individually engages in consultation and targeted discussion with the instructors, who are
the first three chairs of the international Alliance of Digital Humanities Organisations (ADHO), and others in the group outside of course time during the institute.

About the Instructors

- **John Unsworth** (U Virginia) is Dean of Libraries, University Librarian, and Professor of English. Before coming to Virginia, he was Vice-Provost, University Librarian, and Chief Information Officer at Brandeis University, where he also is a Professor of English; earlier, Dean of the Graduate School of Library and Information Science (GSLIS) at the University of Illinois, Urbana-Champaign from 2003 to 2012. In addition to being a Professor in GSLIS, at Illinois he also held appointments in the department of English and on the Library faculty. At Illinois he also served as Director of the Illinois Informatics Institute, from 2008 to 2011. From 1993-2003, he served as the first Director of the Institute for Advanced Technology in the Humanities, and as a faculty member in the English Department, at the University of Virginia. In 1990, as a member of the English faculty at NCSU, he co-founded the first peer-reviewed electronic journal in the humanities, Postmodern Culture (now published by Johns Hopkins University Press). He also organized, incorporated, and chaired the Text Encoding Initiative Consortium, for which he now serves as treasurer. He co-chaired the Modern Language Association's Committee on Scholarly Editions, and served as President of the Association for Computers and the Humanities and later as chair of the steering committee for the Alliance of Digital Humanities Organizations. With Ray Siemens and Susan Schreibman, he co-edited the Blackwell Companion to Digital Humanities, and he chaired the national commission that produced Our Cultural Commonwealth, the 2006 report on Cyberinfrastructure for Humanities and Social Science commissioned by the American Council of Learned Societies.

- **Harold Short** is Emeritus Professor of King’s College London, where he founded and directed the Centre for Computing in the Humanities (later Department of Digital Humanities) until retirement in 2010. He has an educational background in the Humanities and in Mathematics, Computing and Systems, and worked for 11 years at the BBC. While at King’s he was involved in the development of three MA programmes: Digital Humanities, Digital Culture and Society and Digital Asset Management, and, with Willard McCarty, of the world’s first PhD programme in Digital Humanities, launched in 2005. He also played a lead role as Co-Investigator or Technical Research Director in over 20 large-scale interdisciplinary research projects. He is a former Chair of the European Association for Digital Humanities and the Alliance of Digital Humanities Organisations in which he has a continuing role to support the development of digital humanities associations world-wide. He is a general editor of the Routledge series *Digital Research in the Arts and Humanities*. From 2011-2015 he was Visiting Professor at Western Sydney University, where he was closely involved, with Willard McCarty, in the establishment of the Digital Humanities Research Group, which hosted the international *Digital Humanities 2015* conference. Currently he is a
Visiting Professorial Fellow at Australian Catholic University in Sydney, where he is co-Director of the Julfa Cemetery Digital Repatriation Project (https://julfaproject.wordpress.com).

- **Ray Siemens** (U Victoria) is Distinguished Professor in the Faculty of Humanities at the University of Victoria, in English and Computer Science, and formerly (2004-2015) Canada Research Chair in Humanities Computing. He is founding editor of the electronic scholarly journal Early Modern Literary Studies, and his publications include, among others, Blackwell's *New Companion to Digital Humanities* (with Schreibman and Unsworth), Blackwell's *Companion to Digital Literary Studies* (with Schreibman), *A Social Edition of the Devonshire MS*, and *Literary Studies in the Digital Age* (MLA, with Price). He directs the Implementing New Knowledge Environments project, the Digital Humanities Summer Institute and the Electronic Textual Cultures Lab, and served as Vice President / Director of the Canadian Federation of the Humanities and Social Sciences for Research Dissemination, recently serving also as Chair of the international Alliance of Digital Humanities Organisations’ Steering Committee.

**Syllabus**

- **Advance Readings** (all provided in the coursepak):
  - McCarty, “Becoming Interdisciplinary”
  - Prescott, “Beyond the Digital Humanities Center: The Administrative Landscapes of the Digital Humanities”
  - Svensson, “Sorting Out the Digital Humanities”
  - Mandel, “Gendering Digital Literary History: What Counts for Digital Humanities”
  - Thomas, “The Promise of the Digital Humanities and the Contested Nature of Digital Scholarship”

- **Opening**
  - Welcome
  - Research/teaching + administrative partnership
  - Possible “buddy system” for this course; structure and intended outcomes

- **Session 1: Defining Digital Humanities**
  - History of DH as an international and interdisciplinary undertaking (following Advance Readings, above)
    - *Humanities Computing*
    - *Digital Humanities*
  - Definitions of DH?
    - *What is DH*: Further supportive readings that might be useful include Spiro, “Getting Started in Digital Humanities”; Unsworth, “What is Humanities Computing and What is Not”; Burdick, *et al.*,
**Session 2: Organizing Digital Humanities**

- **Institutional structures (centers, labs, departments, partnerships)**
  - **Building foundations:** Further supportive readings that might be useful include Schafner and Erway, “Does Every Library Need a Digital Humanities Center?”;
  - **Support structures & partnerships:** Further supportive readings that might be useful include Edwards, Jackson, Bowker, and Knobel, "Understanding Infrastructure: Dynamics, Tension, and Design"; Pannapacker, William, “Cultivating Partnerships in the Digital Humanities”;

**The Humanities & digital scholarship:** Further supportive readings that might be useful include Ayers, “Does Digital Scholarship Have a Future?”; Davidson, “Humanities 2.0: Promise, Perils, Predictions”; Gold, “The Digital Humanities Moment”; McPherson, “Why Are the Digital Humanities So White?”; Unsworth, “The Importance of Failure”

**Where & when does DH happen?:** Further supportive readings that might be useful include Kirschenbaum, “What is Digital Humanities and What’s it Doing in English Departments?”; Vandergrift, “What is DH and What is it Doing in the Library?”;
▪ **Pragmatics: Project funding & management, credit, careers:**
Further supportive readings that might be useful include:


- **Associations, conferences, standards organizations, and publications**
  - **National, regional and international associations:** Further supportive readings that might be useful include those society websites and documents available via [https://adho.org](https://adho.org).
• **Session 3: Engaging in Digital Humanities**
  o Impact of Digital Humanities
    ▪ On technical developments and infrastructure
    ▪ On arts and humanities research
    ▪ On teaching
  o Preview of possible workshop topics
    ▪ *Institutional strategies*
      • strategies for hiring/strategies for educating search committees
      • organizational structures (centers/labs) supporting DH
      • engagement of library/campus IT/research computing
      • cross-department strategies
      • sustainability
      • different strategies for large and small institutions
      • integrating a DH strategic plan with institutional strategic planning
    ▪ *Nature of research; DH projects*
      • Methods, tools, multi-disciplinary work
      • Selecting a DH research topic
      • Humanities informatics? Human Data Science? Big Humanities Data?
      • Preserving and evolving the epistemological culture of the humanities
      • Individual vs. collective knowledge production
      • Grant-writing, grant-winning/losing
      • technical infrastructure
      • project planning & management, project failure
      • review and publication(s)
      • role(s) for students (ug & grad) in projects
    ▪ Professionalization, credit, peer review
      • Postdocs (designing a postdoc program)
      • graduate training
      • work experience
      • apprenticeship, early and joint publications
      • alt-ac
      • Stated goals for new hires
      • Mentoring to tenure
      • Educating tenure and promotion committees (and colleagues generally)
      • Modeling the DH portfolio in senior promotion cases (assoc. to full)
• Peer review strategies for projects
  ▪ Pedagogy, DH curriculum
  ▪ DH courses or DH in courses
  ▪ online instruction
  ▪ open educational resources
  ▪ developing courses, certificates, degree programs

  o “Buddy” assignments?

• DHSI Auditing Sessions (mornings, Monday-Friday)
  o Participants may audit any and all of the DHSI2017 courses - as a non-participatory observer, able to go from class to class.
  o To help plan auditing visits, course outlines as provided by instructors can be found at [http://www.dhsi.org/DHSI2017CourseOutlines.pdf](http://www.dhsi.org/DHSI2017CourseOutlines.pdf) (available in May)

• Dedicated Afternoon Sessions (Monday-Thursday)
  o Each session has three components:
    ▪ 2.00-2.30: discussion of audited courses, led by participants
    ▪ 2.30-3.15: workshop topics, led by tutors or participants. Selection of topics is flexible and may involve case studies where appropriate
    ▪ 3.15-4.00: talk by visiting speaker, followed by group discussion.

• Tutor ‘office hours’ (Monday-Thursday)
  o At least one of the tutors will be available in the course classroom between 1.00 and 2.00 each day Monday through Thursday.
  o Tutors are also happy to speak to participants outside class times, individually or in small groups as interest and opportunity allow.

A Full List of Supportive Readings

• Advance Readings (all provided in the coursepak):
• Session 1: Defining Digital Humanities


Session 2: Organising Digital Humanities

- Jakacki, Diane, and Katherine Faull. (2016), "Doing DH in the Classroom:
Transforming the Humanities Curriculum through Digital Engagement."
In Crompton, Lane, and Siemens.


- MLA Committee on Information Technology
  - “Guidelines for Authors of Digital Resources”:
    [http://www.mla.org/resources/documents/rep_it/web_guideline](http://www.mla.org/resources/documents/rep_it/web_guideline)
  - “Guidelines for Evaluating Work in Digital Humanities and Digital Media”:
  - “Guidelines for Information Technology Access and Support for the Modern Languages”:
    [http://www.mla.org/resources/documents/rep_it/it_support](http://www.mla.org/resources/documents/rep_it/it_support)


https://www.academia.edu/360360/The_Iterative_Design_of_a_Project_Charter_for_Interdisciplinary_Research


- Session 3: Engaging in Digital Humanities (following the above, and as discussed in session)
What makes bad poets worse is that they read only poets (just as bad philosophers read only philosophers), whereas they would benefit much more from a book of botany or geology. We are enriched by frequenting disciplines foreign to our own. (Emile M. Cioran, 1973)

Being Curious

Temptation to explore the knowable and the ease with which exploring may begin have increased many-fold in recent years due to the Web. As a result, being curious may seem remarkable only in its absence, and only its censure abnormal. Conviction of its utter normality is bolstered by Aristotle’s testimony that the desire to find things out is basic to humans, and by Edmund Burke’s that it is “The first and simplest emotion which we discover in the human mind” (1757:1). Primatologists and ethologists since Darwin have observed curiosity among “the higher animals … similar passions, affections, and emotions, even the more complex ones.” At least behaviorally, if not cognitively, blurring into the hunger of life for life, it would seem reasonable to suppose that curiosity in some sense does not stop with Darwin’s “higher animals” but is synonymous with being or even becoming alive. Konrad Lorenz has written in The Foundations of Ethology, on “exploratory behavior or curiosity,” that

A free play of innumerable factors, a play neither directed at any goal nor predetermined by any cosmic teleology, a play in which nothing is determined except the rules of the game has, on the molecular level, led to the origin of life. It has caused evolution and
moved phylogenetic development in the direction from lower to higher organisms. … It would seem that this free play is the prerequisite for all truly creative processes, for those of human culture just as for those of evolution. (1981/1978:334)

But what individuals and societies actually do with this inherent, biologically rooted if not cosmic tendency to free play is another matter. G.E.R. Lloyd has, for example, detailed the struggle in ancient Greece and China between the freedom to look anywhere, ask anything, and the beholdenness which ensures continuity across time. At the end of *The Ambitions of Curiosity* he concludes that against the constraints they faced these “were often just that, just ambitions. But what ambitions: for in one context after another, they held out the hope of understanding what had never been understood before” (2002:147).

I begin with conflict of the fundamental urge to *know* (in the full sense Heinlein rescued in *grok*) against an equally fundamental resistance so that both remain firmly in sight as I take up curiosity’s interdisciplinary manifestations. Given our time and place, this urge to know may only appear in the ghostly form of a mundane duty or means of advancement, and resistance to it be mistaken as an irrelevant historical artifact. The strong inducements from funding agencies and universities to lay claim to interdisciplinary research may wrongly suggest that professionalized curiosity is merely part of an academic job description, that it is only a matter of acquiring “domain knowledge.” Hence we may also conclude that the old moral injunctions, weighted with the authority of Augustine and Aquinas among others, against a “blameable … disposition to inquire too minutely into anything” and “inquisitiveness in reference to trifles or matters which do not concern one” – senses the *Oxford English Dictionary* marks obsolete – have no modern form. But Lloyd’s careful exploration of the ancient struggle and Lorraine Daston’s well-informed reminder that “Curiosity has never been allowed free rein” (2005:36) recommend that while keeping in mind the “free play … neither directed at any goal nor pre- determined by any … teleology” we ask not whether but how resistance manifests itself to us and how to equip ourselves for the struggle of the freedom to inquire against beholdenness to disciplines.

In this chapter I will first briefly consider the historical push to interdisciplinary research and the growth of interest in curiosity in order to justify explicit attention to exploration of disciplines other than one’s own. I will then bring the difficulties into focus, and discuss the aims of interdisciplinary research and some practical strategies.

A warning: my approach fits somewhat uncomfortably into the burgeoning literature on the subject, which in the last decade or so has orbited the abstraction called “interdisciplinarity” and devoted considerable energy to its inter-, multi-, trans-, and other relations. I take the view that in dicing and re-dicing the *what*, this literature has not paid enough attention to the *how* (whatever good may have been done for the sociology of knowledge). In consequence it has been less than helpful to the adventurous but inexperienced scholar and to the discussion of changing research practices as a whole. Much of this literature begins with the abstraction and as a result gets stuck in taxonomic debate that from my perspective is a *Glasperlenspiel*.
Recent History of Interest

The term “interdisciplinary” (or “interdiscipline” used adjectivally) goes back to the young social sciences in the early twentieth century. Despite the enormous impetus to and development of interdisciplinary research in the sciences during World War 2, the word was still new enough in 1976 that the founding editor of Interdisciplinary Science Reviews felt the need to note that it “is a relatively new term, although its concept reaches back to the beginnings of modern science” (Michaelis, 1976; 2001:310). In 1979 the Association for Integrative Studies was founded. In the following year Clifford Geertz observed for the social sciences that “the lines grouping scholars together into intellectual communities, or (what is the same thing) sorting them out into different ones, are these days running at some highly eccentric angles” (1980:169). Writing in 1988, in a valuable history of the word, Roberta Frank noted that it had “started out with a reasonably bounded set of senses [but] subjected to indecent abuse in the 50s and 60s … acquired a precocious middle-aged spread” (1988:139). That spread has expanded just as interdisciplinary has become a thing to be taxonomized. In 1990 William H. Newell’s edited collection Interdisciplinarity: Essays from the Literature demonstrated a thoughtful and widespread interest. Now “interdisciplinarity” has the attention of a 580-page Oxford Handbook (Frodeman et al., 2010) and many other signs of a vigorous industry.

Mainstream attention to curiosity has likewise grown dramatically in recent years. When at the beginning of the 1980s Michel Foucault spoke of his “dream of a new age of curiosity” (1996/1980:305), and Lorraine Daston and Katharine Park published their first study of marvels, prodigies, and curiosities, academic interest in the topic was rare, they noted. By 1998, when their book Wonders and the Order of Nature 1150–1750 was published, “Wonder and wonders [had] risen to prominence on a wave of suspicion and self-doubt concerning the standards and sensibilities that had long excluded them (and much else) from respectable intellectual endeavors” (1998:10). Since then several other signs of interest have appeared, for example Brian Dillon’s Cabinet (2000–), a magazine intended “to encourage a new culture of curiosity” (http://cabinetmagazine.org); Barbara M. Benedict’s Curiosity: A Cultural History of Early Modern Inquiry (2001); Neil Kenny’s The Uses of Curiosity in Early Modern France and Germany (2004) – “timely now that once again curiosity is being nudged into the cultural limelight,” Daston commented in her review (2005); and Dillon’s 2013–14 traveling exhibition Curiosity: Art and the Pleasures of Knowing, accompanied by a catalog with essays by him and Marina Warner. “The world at large, in all its glory or stupidity, is wide open for investigation,” senior curator Robert Malbert declared enthusiastically in his Foreword to the catalog (Dillon and Warner, 2013:9).

The moment, it seems, is upon us.

Curiosity’s Machine and the Individual

Unsurprisingly, curiosity’s digital machine has been intimately involved. In a sense this chapter is an educated guess as to the outcome for the humanities.
But we do not have to guess entirely in the dark. Without yielding authority to the
physical and biological sciences, we can get some insight from observing changes in
them, where there can be little doubt that, as John von Neumann foresaw, computing
is bringing about “nothing less than the second half of the scientific revolution”
(Glimm 1990:185). According to many voices at the Blankensee Colloquium of
2007, for example, the pressure to conceive scientific “theories and models … as
computable from the outset” has become increasingly difficult to resist. Consensus
seems to be that in many areas of research, models and theories “will become decreas-
ingly successful” if not “conceived from their conception as computable.” What these
sciences do and what they do not do in consequence, or even what becomes inconceiv-
able within them as a result, and so what it means to be a science, would seem in
question.

In the humanities, attempts at corresponding algorithmic power for analysis have
had limited success at best. The effects of curiosity’s machine have come principally
through slowly growing digital collections of primary sources and secondary litera-
ture. In consequence the great majority of scholars have had less than 20 years to
experiment with these effects. During this time they have been lumbered by the
weak and operationally misleading analogy implicit in the notion of a “digital library,”
which has tended to obscure the great differences of action. At one time not so long
ago the name of the game for digital collections was “information retrieval,” a phrase
splicing epistemic data to old library structures and habits. Experts defined the ideal
to be the impossible combination of perfect precision (the relevance of retrieved items)
and recall (the percentage of relevant items found). But classical information retrieval
in fact works quite poorly, especially for the humanities – the disconnect between the
meaning we seek and its encoding in character-strings is simply too great. More
sophisticated mechanisms do much better by following what our and others’ actions
show we want rather than what we say we want in Boolean language. They do not so
much filter out the irrelevant as more effectively locate possibilities likely to tempt us.
The irony is that the failure of these mechanisms (especially the Boolean ones) to aid
specialist inquiry offers a far greater though traumatic benefit to scholarship, bringing
together, say, articles belonging to English literature with others in theoretical biology,
medieval history, anthropology, and cognitive science. Who could not be curious?
I wish I could say, no one.

This I call the default condition of research in the twenty-first century. It is what
happens when you, I, our colleagues, and students use JSTOR, for example, though
again we may choose to deny the temptations. Some recoil from what they see as info-
glut. But from the perspective of research, which by nature cannot arrive at a final
result, for which the brick-in-the-wall metaphor of knowledge is all wrong, what we
get isn’t necessarily debilitating chaos but potentially a fructifying though traumatic
cornucopia. And so my immediate question is how we are to deal with plenty in the
form it now takes.

In other words, the problem that concerns me here is the imminent consequence of
so much genuinely meaningful diversity. We are all aware of the threat to focused
research posed by centrifugal proliferation of intriguing possibilities. We all know
well the frustrations of being lured into time-wasting bouts of online prowling that
yield cascades of material as impractical to explore as they are compelling – and unusable
Becoming Interdisciplinary

unless explored. This, I know, is not strictly new. It is also the peril that has always lurked in any research library. But for obvious reasons it is so much easier to be waylaid, so much easier to succumb. One is so much more likely to encounter material that formerly would have been found on another floor or kept in another, perhaps distant building. So what do you do?

The initial problem is an old one. A well-known historical example of an attempt to deal with it is Vannevar Bush’s rearguard response at the end of World War 2 to the “growing mountain of research” which, he said, the investigator “cannot find time to grasp, much less to remember” (Bush, 1945:101; see also Nyce and Kahn, 1991). In celebrating Bush’s imagined Memex, however, we tend to overlook the fact that he designed it to aid specialization “increasingly necessary for progress,” not to unbind the book, break down disciplinary fences, and all those other things his Memex is said to have inspired. We overlook his view in “As we may think” that “the effort to bridge between disciplines [is] correspondingly superficial” (1945:101; my emphasis). Bush’s geometrical metaphor (superficies, having length or breadth without thickness), though undoubtedly intended as merely a common adjective, makes the point elaborated in another context by Richard Rorty (2004/2002): that the implicit model of knowledge at work here privileges singular truth at depth, reached by the increasingly narrower focus of disciplinary specialization, and correspondingly trivializes plenitude on the surface, and so the bridging of disciplines. Hence the epistemic question that the Web makes so difficult to avoid: is this plenitude only, necessarily trivial or trivializing? Must its interdisciplinary pursuit be conceived as mentally enervating? Is depth of knowledge necessarily and always good — or, as we say revealingly, profound?

The obvious answer, no, leaves us with a problem of practical epistemology: how then do we do research? Rorty argues from Gadamer that we are faced with an entirely different way of conceiving the pursuit for truth, not going deep to find the one answer but going wide to collect many witnesses, many views, then filtering, sorting, and reclassifying according to the question at hand (2004/2002).

The Aim and the Difficulties

As curious inquirers empowered by curiosity’s machine and encouraged to do interdisciplinary work, what is our goal?

I have entitled this chapter “Becoming interdisciplinary” with care, not only to focus attention on individual practice but also to answer the charge leveled against all such work by Stanley Fish in his formidable interdiction, “Being interdisciplinary is so very hard to do” (1989). The title is deliberately ironic: he argues that it is impossible to be interdisciplinary, warning his reader off in a relentless, closely reasoned argument.

His target is more serious than the many specious claims to interdisciplinary work and the handwaving that attends them. Fish’s concern is with the goal of achieving a neutral, perfectly interdisciplinary standpoint, and so with the claim to a kind of absolute truth transcending all disciplines — a panoptic god’s-eye view from which they might all be observed doing their limited things (The claim to the panoptic view lurks, for example, in the casual rhetoric about “breaking down” the boundaries that disciplines construct and police, to make from a partitioned landscape a great open
field of knowledge. Indeed the very idea of the panopticon is illuminating: see Foucault, 1991/1975; Bentham, 1995; Lyon, 2006.) I think we must agree with Fish thus far, that such a goal is delusional – this side of godhead no such perfect neutrality is possible, and that belief in it is dangerous in its programmatic absolutism. I refer you to his article for the details. But what I would like you to note here in particular is his further, and I think quite wrongheaded, assertion that attempting a broader view is therefore not only doomed but also morally wrong. Such a fundamentalist position would by analogy have us argue that one should abandon any attempt to be good because achieving perfect goodness is, as we all know, impossible. Just as we, knowing that being perfectly good is unachievable, do not run amok but try our best, should we not strive to extend ourselves beyond what we have been conditioned to know in the ways we have been conditioned to know it? Isn’t that what education is for?

Those other than Fish who have considered the problem seriously – I name only Gillian Beer (1996:115–45; 2006), Greg Dening (1996:39–41), Thomas Kuhn (1977:5–6), Marilyn Strathern (2004), Peter Galison (2010), and Myra Strober (2010) – attest that making the attempt is severely challenging. We learn from them all, and from many others who have written on the topic, but my focus here is narrower. Strober’s sociological concern is with colleagues in university departments and how they might most productively combine their research interests. Her interdisciplinarity is the collaborative kind. Strathern’s anthropological and Galison’s historical concerns are with interchanges of knowledge and knowledge-objects between established groups across what Galison has called “the trading zone.” Mine here, like Beer’s, Dening’s, and Kuhn’s, is with the individual rather than with groups, with cognitive rather than professional strategies. On the basis of my own experience in making the attempt (but necessarily always falling short), I want to sketch out what is involved. Whether alone in the study or together with others in a research team, the individual faces the same challenge in attempting to take on a foreign disciplinary culture. So, I would argue, the broad relevance of the individual’s dilemma to scholarship, whether alone or in teams.

In Open Fields: Science in Cultural Encounter (1996) Beer reflects a lifetime of experience. “Interdisciplinary work crosses over between fields,” she writes: “it transgresses. It thus brings into question the methods and materials of differing intellectual practices and may uncover problems disguised by the scope of established disciplines” (1996:115). Elsewhere she enumerates the hazards:

how to distinguish what’s central from what’s peripheral in this other zone; how to tap into the hinterland of controversy that lies behind the works on the shelf; how to avoid becoming merely disciples because not in control of a sufficient range of knowledge. … The converse of this is true as well: the problems preoccupying those working in another discipline may sometimes (initially, arrogantly) seem quite simple – because we are not familiar with the build up of arguments across time that has reached this moment of dilemma.

And then, crucially, there is the matter of competence. … Others have spent years acquiring the skills that the interdisciplinarian needs. Is this a raiding party? Is there time to question and to learn? How much must be taken on trust? Are we accessing others’ materials but still applying the mode of analysis learnt in our native discipline, or are we seeking new methods of analysis too? Either of these approaches may in fact yield fruit. And it is essential that we do not abandon the long learnt skills that go with our own disciplinary formation: they will be fundamental in any contribution we can make to new knowledge (Beer, 2006)
And then there is the profound intellectual trauma that attends the understanding of what is involved. Kuhn (philosopher, historian, and physicist) wrote from his belief in disciplinary incomensurability of “a personal wrench, the abandonment of one discipline for another with which it is not quite compatible” (1977:5). Here Karin Knorr Cetina’s term “epistemic culture” is suggestive (1991). It connotes the integrity of disciplines as social institutions, their internal coherence, the respect for them we find in those who have explored most successfully beyond the limits of their own – and the culture shock that movement among them entails.

For my purposes here I take disciplines, then, as autonomous epistemic cultures from which explorations begin and to which they usually return, bringing change with them. Each of them, including the one you start from, is characterized by a “normal discourse,” as Rorty has called it. However permeable or open, each thus orbits “an agreed-upon set of conventions about what counts as a relevant contribution, what counts as answering a question, what counts as having a good argument for that answer or a good criticism of it” (1979:320). These conventions are seldom if ever written down; agreement is mostly or entirely tacit, embodied in works of scholarship taken by consensus to be exemplary – for a time. Rorty notes that his idea of “normal discourse” is a generalization of Kuhn’s “normal science,” and that, as in Kuhnian science, disciplinary normality is from time to time upset and refigured by revolutionary changes in a field. For the interdisciplinarian these are events to learn from.

Disciplinary normality is policed – sometimes not too strong a term for the passionate attacks on new ideas. More serious is the silent way in which, as Dening notes, disciplines function as “ways of making a blinkered view of the world seem mythically true” (1996:40), hence other views wrong, insignificant, or even undetectable. For this reason, in proportion to differences in its conventions, research in a discipline to which one is alien is difficult to see as good research, or even to see as research at all (Imagine from an old-fashioned philologist’s likely perspective what publications in computer science or in cultural studies would look like, and vice versa.) The outsider presenting to insiders is apt to be greeted by incomprehension, misapprehension, indifference, hostility – or, what is worst of all, he or she may not be heard as saying much of anything, as if a tiny insect had flown into the room and was making a barely audible, slightly annoying buzz.

In its etymology, “barbarian” encodes the sociointellectual problem that becoming interdisciplinary aims to overcome.

The Meta-Discipline of Interdisciplinary Explorations

I have argued that the interdisciplinarian cannot get away from his or her discipline of origin, at least not completely, and I have implied that the more disciplines he or she investigates the more diversely enculturated he or she will become. And I have hinted in my reference to epistemic cultures that interdisciplinary exploration itself cannot be innocent of disciplinary guidance, that there must be a meta-discipline at play, i.e., social anthropology. Let me now bring that meta-discipline into the open.

If disciplines are epistemic cultures in the anthropological sense, then we have not just silos or islands of knowledge but islands populated by communities of knowers,
their languages, habits, histories, and artifacts. I referred earlier to Galison’s trading zone, which applies chiefly to contact between disciplines motivated, as traders are, by their own agendas. Thus, in the transfer of objects from one to the other, Galison describes “a partial peeling away, an (incomplete) disencumbrance of meaning” (1997:436). The interdisciplinarian may only be wanting a like depth of contact, but here I am assuming the objective to be more than that – to be acquisition of what Clifford Geertz calls, with care, “the native’s point of view” (1983). In one place he describes the “characteristic intellectual movement … [as] a continuous dialectical tacking between the most local of local detail and the most global of global structure in such a way as to bring them into simultaneous view” (1983:69); in another as “a Jamesian hum of buzz and implication … [a] double image, clarity from a distance, jumble up close” that “critiqued, developed, filled out, moralized upon, and brought to bear on more exact experiences … turned into my most general conception of what it was that was driving things” (1995:13). For the ethnographic historian Greg Dening, whose Oceanic natives and European strangers vanished long ago, all such explorations are performances “on the beaches of the mind” (2002). The Death of William Gooch: A History’s Anthropology (Dening, 1995) is a magnificent, inspiring example.

By singling out two of the scholars to whom I am most indebted I may seem to be in imminent danger of falling into one of the traps Beer warns us against: becoming a mere disciple “because not in control of a sufficient range of knowledge” – which is, I must admit, a fair warning. But I offer Geertz and Dening not as icons for your mantelpiece but to illustrate the beginnings of a way of finding structure and methodological guidance. The fluid combination of distance and intimacy in interdisciplinary exploration is otherwise very difficult to navigate. One could do much worse than those two, though many others have thought extensively about ethnographic practice and may provide better help in different circumstances. But whether there is a more effective meta-discipline I very much doubt.

The range of possibilities in interdisciplinary research is from theft to assimilation. At the former extreme is Beer’s “raiding party,” which we can see frequently occurring in the poaching of equations, methods, and other expressions of process from one discipline for use in another. Such is also characteristic of creative artists, who take and adapt with equally little regard for the source. It can be seen in the long-term behavior of disciplines or whole groups of them, for example, the “refiguration of social thought” brought about by a shift of influence from the natural sciences to the humanities (Geertz, 1980). The effects can be disastrous (cf. Franck, 2002). Now, with consensus on the importance of material culture and its “thing knowledge” (Baird, 2004; Daston, 2004; see also Galison, 1997; Gorman, 2010), we cannot doubt that poaching has its not always foreseeable consequences.

At the other extreme is the one-way migration, to establish a new discipline (e.g., molecular biology, digital humanities) or to resettle in an old one as an ex-pat.

Between these two is what seems to me the ideal – a combination, not compromise, of centrifugal freedom and centripetal beholdenness. This is expressed, for example, by Northrop Frye in On Education: “every field of knowledge,” he writes, “is the centre of all knowledge … [I]t doesn’t matter so much what you learn when you learn it in a structure that can expand into other structures” (1988:10). Such would seem what Ian
Hacking describes in his role as “complacent disciplinarian” (2004): “not interdisciplinary in the sense of trying to break down disciplinary boundaries, but rather a philosopher who tries to be disciplined enough to pick up what is going on in other disciplines” (Hacking, undated). Sociologist Jerry A. Jacobs’ critical study, In Defense of Disciplines: Interdisciplinarity and Specialization in the Research University (2014), argues that quite contrary to the talk of “silo mentality” knowledge passes quite readily from one discipline to another.22

The How

Interdisciplinary research is like the ordinary curiosity-motivated kind in that it is exploratory and unpredictable within the domain to be explored. But (to paraphrase Beer) because the interdisciplinarian brings into question the methods and materials of a differing intellectual practice, possibly uncovering problems disguised by the scope of the discipline under investigation, the security of that discipline’s embrace is unavailable. Again the interplay of freedom and beholdenness: while the constraints of the foreign discipline must be recognized and respected, the interdisciplinarian struggles to be as much free of them as of those belonging to his or her discipline of origin. In a sense Alan Rauch is right, that the help we need is to “find our way in a world that is always already interdisciplinary” (Austin et al., 1996:274) – so long as we understand this to mean both that no one gets it quite right and that no completely right take on it is to be had.

Basic skills that are required begin with the old one of following trails in books and articles through their footnotes and bibliographies, watching for repetition of references to the same source that signals its regard within its discipline’s normal discourse. Reviews are an obvious way to measure the reactions of a discipline to new work. Edited collections (despite the ill-deserved contempt in which they are held by “research excellence” exercises) can be invaluable, especially if they set out, as they often do, to give a synopsis of research in the discipline. So also special issues and dedicated sections of journals devoted to themes important to particular disciplines. Deliberately crafted presentations to outsiders can likewise be valuable, for example contributions to the Oxford University Press’ Very Short Introductions series; overviews commissioned by professional societies for their websites; and explicit gestures from individuals, such as Peter Berger’s well-known Invitation to Sociology: A Humanistic Perspective (1963) and his later reversal in “Sociology: a disinvitation?” (1992). Public lecture series frequently give senior scholars the opportunity to take just such an overview as the interdisciplinarian would wish for: for example, the BBC Reith Lectures and the American Council of Learned Societies Howard Homer Haskins Prize Lectures.23 Colleagues and friends can sometimes be helpful, but often a native informant will be influenced too much by a particular school of thought within a discipline to be useful.

Native informants are also likely to be so caught up with the current state of the discipline that they not only lack the overview you need but also miss what I like to call the trajectory of the discipline, its long-term direction or sense of purpose, which they may lack the perspective to see. Looking back to origins may help. In The Muse
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Unchained: An Intimate Account of the Revolution in English Studies at Cambridge (1958), E.M.W. Tillyard argues that, “When a new freedom comes into being, the kind of thing it leads to depends largely on the characters of the people who first enjoy it. … Thus it follows that any fitting account … must deal largely with persons and their characters. … It must have as its main topic certain people: by what accidents they became involved … what ideas they had, and how they translated them into action” (11–12). As I’ve argued elsewhere for digital humanities (McCarty, 2013:46), we know from various sources that social phenomena are marked, often indelibly, by the historically specific contexts of their origins. They are, as we say, imprinted (Stinchcombe, 1965; Lounsbury and Ventresca, 2002). So there is strong argument in favor of the writings of founders. A good example of a recent case is cultural studies, for which the works of Raymond Williams and Richard Hoggart are particularly important: for example, for Williams, his luminous essay “Culture is ordinary” (2001/1958). Such originating works may lead to others commenting precisely on what made them foundational, thus Terry Eagleton on Williams in “Resources for a journey of hope” (1989) and Lindsey Hanley on Hoggart in her introductory essay to the recent edition of The Uses of Literacy: Aspects of Working Class Life (2009).

Just as colleagues and friends may be helpful, so also popular cultural materials, such as, again, for cultural studies, the BBC television drama The Chatterley Affair, on the obscenity trial at the Royal Courts of Justice in 1960 against D.H. Lawrence’s Lady Chatterley’s Lover. In that trial Hoggart (played accurately by David Tennant) gave crucial testimony that led, as you may know, to the funding which made possible the inaugural center for cultural studies at Birmingham, by the grateful publisher of the novel, Penguin Books. In following such leads, one strays far from the confines of rigorous scholarship, but so do scholars in their ordinary lives. To paraphrase sociologist Maurice Halbwachs (1992:22) and anthropologist Mary Douglas (1986/1987:45), while interdisciplinary understanding of a problem can draw strength from a base in a socially organized body of people, it is individuals who understand and so must be understood. The group is not mind writ large; rather the mind of the individual is the group writ small and made intellectually coherent.

Digital Humanities

I have so far avoided discussing two things: the particular situation of digital humanities among the disciplines, and cookbook procedures for interdisciplinary research. The latter I will not do. A comparison of any introductory handbook on ethnographic method to the writings of such as Geertz and Dening will demonstrate how much is lost and how much distorted by reducing a powerful role to a set of rules or textbook account. As Geertz’s famous description of the Balinese cockfight makes clear, his and his wife’s “sudden and unusually complete acceptance into a society extremely difficult for outsiders to penetrate” did not come from a “generalizable recipe for achieving that mysterious necessity of anthropological field work, rapport” but from their own equally sudden and complete acceptance of village life in a telling moment (1972:4). It’s unlikely that interdisciplinary fieldwork will ever be quite as memorable as that cockfight, but the principle is the same and stands
persuasively against any attempt to describe how to perform the role this chapter has sketched its way around.

The former, to consider interdisciplinary research from our starting point in digital humanities, is unavoidable in the context of the New Companion and important also because this discipline’s nature is unique. I can see three ways in which it is, with corresponding points to be made about becoming interdisciplinary.

First, digital humanities is new. Although it has been practiced for over six decades, self-awareness only came to the discipline in the last decade, with the publication of the first Companion in 2004 and my own Humanities Computing in 2005. Because it is new, the discipline needs help from its peers. Just as physics at its beginning took from the arts and crafts, mechanics and mathematics, and made something different from them, so also digital humanities must take as need be and transform what it takes. All outward explorations from any discipline into others render it vulnerable to being diverted by tacit thing knowledge, as I said earlier, but digital humanities is particularly at risk because it lacks a strong sense of itself. I also noted that its necessary openness to relationships is another source of vulnerability. To become interdisciplinary means to become radically reciprocal.

Second, digital humanities has (to paraphrase the medieval centrum ubique, circumferentia nusquam) a centre all over the disciplinary map and a circumference that is at best uncertain. Here is not the place to argue how far the Big Tent extends, nor what activities, if any, or in what sense, belong under it and nowhere else (Pannapacker, 2011). But it is clear that interdisciplinary research is simply how it operates. That fact makes becoming interdisciplinary neither easy nor simple, however. It is not easy, for reasons I have taken pains in this chapter to explore. Digital humanities does not get a pass. It is not simple, because the techno-scientific instrument on which the practice is based means that the digital interdisciplinarian brings the whole inheritance of the Two Cultures to the table. But like it or not, the techno-sciences are part of the conversation.

Third, in consequence of that inheritance, digital humanities offers a middle ground or conjectural space within which, data being simply data, the objects of study dear to the humanities may be treated temporarily as if they were objects of nature, like rocks or stars, then the results of that treatment juxtaposed to how we see them and questions asked. I have argued the case at length elsewhere (McCarty, 2007). But the core of it is this: that via the conjectural space digital humanities inherits without surrender of authority to the sciences far more than the debate C.P. Snow started in 1959. It inherits many centuries of now relevant work that has been foreign to the humanities since Galileo.

Coda

My aim here has been to suggest that not just the need to tackle great problems but also curiosity’s latest historical moment are with us, that becoming interdisciplinary both rides the urge to know and struggles to hang on against the possibility of being thrown by it. I have put great emphasis on faithfulness to a discipline’s self-understanding as countermeasure to solipsism, but at the same time the well-attested history of fruitful poaching cannot be denied.
Is becoming interdisciplinary – always that participle, Dening insisted – a good thing? Anyone struggling to finish a major piece of writing against the commanding temptations on all sides is allowed to wonder. But the cornucopia opened to us by curiosity’s digital machine is not a force of nature like the tide. It is a direct consequence of human action, bringing back a dark, riddling answer to an implicit question: what if curiosity were operationalized? We have no clear answer yet but feel the force of the question.

Notes

1 “Ce qui rend les mauvais poètes plus mauvais encore, c’est qu’ils ne lisent que des poètes (comme les mauvais philosophes ne lisent que des philosophes), alors qu’ils tireraient un plus grand profit d’un livre de botanique ou de géologie. On ne s’enrichit qu’en fréquentant des disciplines étrangères à la sienne.”

2 Metaphysics 980a21.

3 The Descent of Man (1871:47), where he dismisses the opinions of “many authors who have insisted that man is separated through his mental faculties by an impassable barrier from all the lower animals”. Other keen observers of the natural world attest to what Konrad Lorenz calls the autonomous exploratory behavior of “the most highly organized animals … [which] can, in subjective phenomenology, be described as curiosity” (1981/1978:292; see also 333–5), e.g., fellow Nobel laureate Nikolaas Tinbergen’s Curious Naturalists (1969/1958).

4 “to understand so thoroughly that the observer becomes a part of the observed – to merge, blend, intermarry, lose identity in group experience” (Heinlein 1961:287). See all of OED s.v. know.

5 See Conf. 10.35; but note also 1.14; Summa Q167; cf. Foucault 1996/1980:305.

6 Not everyone who uses the abstract noun engages in the ontological exercise; my point is that the abstraction raises the question, what is it?

7 Now the Association for Interdisciplinary Studies; see http://www.units.muohio.edu/aisorg/ (accessed January 27, 2014).


9 Daston and Park, 1998:9–10. Social history demonstrates that extra-academic curiosity about matters formerly kept hidden or dismissed erupted in popular culture from the mid 1960s; the Swedish films I am Curious (Yellow) and I am Curious (Blue), released in 1967 and 1968 respectively, are representative.

10 Academic attention to curiosity blurs into the anthropology and social history of magic, shamanism, witchcraft, demonology, satanism, the paranormal and so on, which show a much less well defined trajectory.


13 Gramelsberger 2011:12 (proceedings of the 2007 Colloquium), paraphrasing Thomas Lippert; see also Humphreys, 2004.

14 See, for example, the first two papers discussing “information retrieval” in the ACM Digital Library, Perry et al., 1954, and Ridenour, 1955.

15 The case does not have to be made for the humanities; for the sciences see Rheinberger, 2010.

16 Liu (2008) is the only other argument along these lines that I know.

17 Apart from Frodeman et al., 2010, see esp. Fuller, 2013, and the many publications of Julie Thompson Klein, csid.unt.edu/about/people/klein (accessed February 11, 2014), e.g., Klein, 1990.

18 For one of the more spectacular examples see the reaction of historians to the importation of computing (in the form of “quantification”) from economic history, e.g., Davis et al., 1960:540; Bridenbaugh, 1962; Fischer, 1970:104; Plumb, 1973:64ff; Barzun, 1974:14,158; Stone, 1987.
According to David Apter, Clifford Geertz “once entertained the notion of doing an anthropological study of the disciplines as savage tribes” (2007:112). Alas, he did not act on it.

Ethnography is standard practice in computer science (see e.g., Crabtree et al., 2012; Nardi, 2010).

For the sciences in general see Hacking (2002) on styles of scientific reasoning. Examples of pattern-finding tests in statistics are numerous and telling; see Hacking (1990). See also McCarty (2005:68–9) on the remarkably migratory Michaelis–Menten equation. Digital humanities is based on the migratory power of methods across disciplines.

I discovered Jacobs (2014) too late to take proper account of it. A quick scan of it suggests that its sociological argument, while not central to my purpose, strengthens my case on behalf of disciplines as starting points for intellectual growth. His critical attack on the rhetoric of disciplines as isolating silos of knowledge and barriers to its movement looks telling.


References and Further Reading


Fuller, S. 2013. Deviant interdisciplinarity as philosophical practice: prolegomena to deep intellectual history. Synthese 190 (11), 1899–916.


I recently took part in an “awayday” meeting to develop a strategic plan for the Department of Digital Humanities at King’s College London. Among the suggestions for improvement of the department made on a sticky note was “NO MORE SPREADSHEETS.” It was a fair comment. No one becomes involved with digital humanities in order to ensure that digital humanities projects are more accurately costed or their management made more streamlined. Digital humanities is about creativity and experimentation; they should be a disorganized play space, not a model of managerial propriety. I became interested in digital humanities because I am fascinated by archives and manuscripts, and want to see how digital technologies provide new perspectives on them. Anything that distracts me from that is a waste of time and energy. I do not want to write strategy documents or prepare Gantt charts. I find bureaucratic processes such as research assessment or teaching reviews soul-destroying. I am very bad with money and not a good person to be in charge of budgets, and I am too distracted by research and writing to be a good manager. I do digital humanities because I want to do cool things. But if I want to get the money and resources to do cool things, I need to write carefully costed grant applications, to prepare project plans, and to persuade the university’s managers that digital humanities work is worthwhile. To achieve that, I need to fill out spreadsheets, and get others to complete them as well. The spreadsheets are an inescapable part of our condition.

In 1993, Kevin Kiernan and I undertook some digital imaging of a burnt Cotton manuscript at the British Library. Kevin wrote that the experiment seemed “to portend the start of something really big, expensive, and earth-shattering” (Kiernan, 1994). Digital humanities is potentially (but not necessarily) expensive. We have equipment requirements which can go beyond those of conventional humanities departments,
as recent use of synchrotron light sources to examine ancient manuscripts illustrates (Morton et al., 2004; Fleming and Highfield, 2007). We generate data which requires a storage infrastructure and specialist staff to manage the data. Ensuring that digital scholarship is preserved and made sustainable over a long period of time requires resources to undertake the curatorial activities of selection, maintenance, and updating. However, the main expense in digital humanities work is not the capital cost of equipment and buildings. If all we needed was specialist digital equipment, we could probably persuade university administrators and funding bodies to buy it for us, as capital expenditure is a nice containable one-off. What makes digital humanities expensive is the people.

Conventional humanities research is still frequently undertaken by the “lone scholar,” digging into books, manuscripts, and other cultural artifacts in libraries, archives, and museums. Such research can be fitted into regular research days and university vacations. Many assumptions of university management about scholarly publication patterns and career paths in the humanities are still predicated on a “lone scholar” model, even in newer disciplines such as media and cultural studies. One characteristic of digital humanities is that much of its scholarship is team-based and does not easily fit into such historic administrative structures. Of course, this does not mean that digital humanities research cannot be undertaken by lone scholars. Some of the most important reflexive discussion of how engagement with technology is transforming understanding of history, culture, and society continues to be undertaken in these traditional ways. As the volume of digital materials grows, such critical commentary will become more, not less, important. But digital humanities also involves the creation of digital resources ranging from online editions to 3D reconstructions, and at the heart of the digital humanities is the idea that humanities scholarship can be carried out and expressed in a digital environment, that the humanities need no longer be bound by the technological restrictions of the printed codex. The conventional academic structures of humanities scholarship are geared to the production of books and articles. As humanities scholarship moves away from the production of scholarship in book or article form, so different administrative structures will be required.

In order to engage in such digital scholarship, teamwork is essential. The principal investigators who inspired and directed the creation of The Proceedings of the Old Bailey, 1674–1913 (www.oldbaileyonline.org) were legal historians but they needed to enlist many other people to bring their vision to fruition. They required advice from project analysts with experience in the creation of digital resources as to how to approach the material. They used a digitization team to scan the original printed proceedings. These images were turned into machine-readable text by teams of keyboarders. The structure of the XML tags which control the display and search of the digitized text was defined by specialist XML designers. Automated software was used for some of the tagging, but other tagging had to be undertaken by experienced editors with an understanding of the way the XML was structured. A high degree of computer expertise was required for the design of the search engine, the indexing of the data, the creation of the interface, and the mounting of the resource on servers. Again, these various activities were often best undertaken by a team. This complex network of activity had to be tied together with strong project management. Four separate funding agencies provided
funding for the development of The Proceedings of the Old Bailey, as well as the three universities in which the project was based. The project web pages list 22 people who were involved in its development. The administrative infrastructure required for the creation of groundbreaking digital scholarship has more in common with filmmaking than old-style academic publishing.

It is a commonplace that success in the digital economy depends as much on successful business models as on technological innovation. T. Michel Nevens (2000:81) has observed that “Although Silicon Valley is justly famous for technological innovation, innovations in management approaches, policies and investment strategies – in short, business models – are equally responsible for the Valley’s extraordinary economic performance.” As is well known, the success of Google depends on its highly targeted advertising, while the resurgence of Apple reflects the success of the business models associated with iTunes. Amazon’s initial focus on book selling reflected the fact that books are suitable commodities for online ordering and dispatch, while the Amazon fulfillment service, in which third parties undertake warehousing and dispatch while Amazon provides the ordering platform, is a good example of an innovative business model in online retailing. Just as with Google, Amazon, or Microsoft, the ability of digital humanities to establish itself as a significant force driving forward the academic world’s development of digital scholarship depends on its ability to create innovative business models within the academy. According to Nevens, successful Silicon Valley business models are:

- flexible. They are highly focused … They are talent driven. Technical, marketing and managerial talent are in short supply, and Silicon Valley firms have devised ways to leverage other people’s talent as well as develop their own. Finally, Silicon Valley business models are open and fluid. (Nevens, 2000:81–2)

Notwithstanding the importance of Stanford University in fostering the development of Silicon Valley, universities are generally conservative bureaucratic environments which are far removed from the open and flexible environment of Silicon Valley. If flexibility and openness are preconditions for success in the digital world, can this be achieved by digital humanities units in a university environment?

In recent years, utopian claims as to the way in which digital humanities might reshape the academy (usually the American academy) have become commonplace. The Digital Humanities Manifesto 2.0 (2009) envisages the emergence of a new institutional topography: “not just disciplinary, but one involving alternative configurations to producing knowledge – open-ended, global in scope, designed to attract new audiences, and to establish novel institutional models.” The manifesto imagines the disappearance of the traditional academic department and its transformation into a temporary pop-up phenomenon of “finite knowledge problematics” which “comes into existence for a limited period, only to mutate or cease as the research questions upon which it is founded become stable and their explanatory power wanes.” Among the kind of transient departments imagined by the manifesto are a Department of Print Culture Studies, an Institute of Vocal Studies, and a Department of Erasure Studies. This is an attractive vision, but the reality would probably prove less appealing: arbitrarily defined subject areas reflecting whatever the university’s marketing department thinks
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is the best choice, taught by adjunct staff on short-term contracts. Utopian visions of the sort found in the *Digital Humanities Manifesto* are helpful insofar as they encourage debate about the nature and character of humanities scholarship, but are less useful as a blueprint for the exploitation of the potential of digital technologies to stimulate the production of innovative forms of scholarship.

Commentators have acknowledged the importance of developing appropriate institutional structures to support the digital humanities, but there is little detailed discussion of what these structures might look like. Thus, while Willard McCarty in 2008 surveyed the different types of practice within digital humanities and urged that “the institutional structures we build for the digital humanities should reflect the nature of the practice as it has emerged in the last few decades” (McCarty, 2008:259), he did not develop further what this meant, beyond a recognition that digital humanities was more than a “support” activity. Similarly, Christine Borgman (2009) argued passionately that the digital humanities were at a critical moment of transition from a niche area to a fully fledged community, and stressed the importance of arguing for the development of infrastructure to support this, but was again vague as to exactly what this structure might consist of. The potential contribution of particular areas of the academy to the development of digital humanities has occasionally been stressed. Kirschenbaum (2010) has stressed the particular affinity between English departments and the digital humanities, while Sula (2013) points out that digital humanities also embraces materials and methods of interest to many other disciplines apart from English, and argues that libraries are particularly well placed to develop networks of expertise in the digital humanities.

The administrative landscape of the digital humanities is filled with what McGann (2014:131) has vividly described as “a haphazard, inefficient, and often jerry-built arrangement of intramural instruments – freestanding centers, labs, enterprises, and institutes, or special digital groups set up outside the traditional departmental structure of the university.” The directory of digital humanities centers maintained by the international umbrella organization centerNet (http://digitalhumanities.org/center-net) listed in August 2014 nearly 200 separate digital humanities centers across every continent. Similarly, the Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC: www.hastac.org) has over 400 affiliated organizations. The digital humanities center has provided the main engine for the growth of digital humanities over the past 25 years, and there can be no doubt that digital humanities centers will continue to play a leading role in shaping digital scholarship. This is apparent from two recent reports, a survey of digital humanities in the United States produced in November 2008 for the Council on Library and Information Resources by Diane M. Zorich (2008), and *Sustaining Digital Humanities: Host Institution Support Beyond the Start-Up Phase* by Nancy L. Maron and Sarah Pickle (2014). These works provide the most detailed accounts of the administrative framework of the digital humanities, but most of the examples discussed in them are from the United States of America. To provide a more international perspective, it is also essential to refer to the remarkable series of articles by Patrik Svensson (2009, 2010, 2011, 2012) reviewing the emerging landscape of the digital humanities. Svensson addresses many aspects of the intellectual formation of the digital humanities, but his emphasis on the way in which various digital humanities units function as spaces allowing new forms of intellectual
contact and collaboration is vital in understanding the success of the center as a means of promoting digital humanities. John Bradley (2012) has also provided important insights into the philosophy underpinning the development of digital humanities centers in his description of the way in which the Department of Digital Humanities at King’s College London was conceived as a unit for the pursuit of collaborative research in which the computing specialist works hand-in-hand with the humanities researcher as an intellectual peer, with none of the distinction between academic and professional staff which so frequently bedevils collaborative work.

The digital humanities center is helpfully defined by Diane Zorich as “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” (Zorich, 2008:4). Among the characteristic activities of a digital humanities center are the creation of digital resources, the production of digital tools for humanities work, the organization of lectures and seminars, the provision of digital humanities training in a variety of forms ranging from workshops to academic degree programs, and collaborative work in developing digital skills, expertise, and projects in other departments. While the digital humanities center is not a necessary precondition of digital humanities activity, nevertheless many of the hopes and dreams of digital humanities have in recent years been bound up with the work of such centers. The funding and advocacy of the digital humanities offered by bodies such as the National Endowment for the Humanities (NEH) and the Mellon Foundation has encouraged universities to invest in the creation of digital humanities centers, many of which have quickly built up imposing portfolios of projects. One of the oldest and most celebrated of such centers is the Institute for Advanced Technology in the Humanities at the University of Virginia (www.iath.virginia.edu), which since 1992 has built up a portfolio of over 50 collaborative research projects by faculty from both humanities and computer science departments in subjects ranging from Tibetan literature in the Nyingma tradition to the circus in America. One of the attractions of such centers for university management is that they are often very successful in attracting large quantities of research income. The Department of Digital Humanities at King’s College London secured over £8 million in research grants for about 30 projects between 2008 and 2013.

While there is a strong family resemblance between digital humanities centers, almost every center differs in its formal character, with a plethora of ingenious administrative and institutional solutions used by different universities and colleges to create, develop, and maintain their centers. Some are freestanding institutes, administered at faculty or university level; others form parts of existing academic departments, in disciplines ranging from literature to library studies; some are academic departments in their own right; others are treated as support services and are part of the library or computing services; some just consist of loose alliances of local enthusiasts. The disciplinary relationships of digital humanities centers are equally complex: some are avowedly interdisciplinary and float above faculty or school level; others are placed under disciplinary umbrellas. Most longstanding digital humanities centers have undertaken a bewildering institutional journey of change, development and uncertainty in their funding and governance. The Humanities Research Institute (HRI) at the
University of Sheffield, for example, arose from the shared location of a number of early humanities computing projects in office space provided by the University Library. The Arts and Humanities Graduate School provided the HRI with a more formal governance structure through a management committee, leading the HRI to acquire an additional role in promoting interdisciplinary activity. The HRI eventually became one of a number of overarching “supercenters” and was funded directly by the Faculty. However, growing emphasis on its digital services saw it subsequently formally defined as a support service within the Faculty. Many older digital humanities centers can tell similar tales of administrative improvisation and adjustment, reflecting a consensus among university administrators that, while it was important that there was digital expertise in the humanities, no one was sure exactly where it fitted in.

The digital humanities center offers many advantages. It provides a clear focus of expertise within the university, a place where academic researchers can easily find authoritative and trustworthy advice on digital humanities. The way in which digital humanities centers develop portfolios of projects covering a wide range of disciplines, countries and periods illustrates to academic colleagues the potential scope of digital humanities and promotes the cross-fertilization of digital humanities approaches across different disciplines. The digital humanities center helps assure the long-term sustainability of digital scholarship by ensuring that standards and technical approaches used by projects are open and sustainable. For Mark Sample (2010), a digital humanities center can be “the chance to work with programmers who speak the language of humanities as well as PERL, Python, or PHP,” to share notes with “colleagues who routinely navigate grant applications and budget deadlines, who are paid to know about the latest digital tools and trends - but who’d know about them and share their knowledge even if they weren’t paid a dime.” In Sample’s view, a center is valuable as “an institutional advocate on campus who can speak within a single voice to administrators, to students, to donors, to publishers, to communities about the value of the digital humanities.” Digital humanities centers often act as “interdisciplinary ‘third places’ – a term sociologist Ray Oldenburg has used to identify a social space, district from home and workplace” (Zorich, 2008:vi). Within this “third place,” projects and ideas can cross-pollinate, so that the musicologist can see how the approach of (say) classicists to the digital markup and presentation of material is relevant to her. One of the most valuable roles of a digital humanities center is in providing a neutral space for shared discussion, programming, making and sharing of ideas. Patrik Svensson has described how this interest in creating new spaces of scholarship (an interest shared with librarians) has influenced the development of the Swedish HumLab. There is perhaps a tendency to want to assign fixed functions to a digital humanities center, and a feeling that it should perform a readily defined and well understood role, just like a library or archive. However, as Sula (2013) has illustrated in his thoughtful discussion of a conceptual model to define the relationship between digital humanities and libraries, the boundaries between the digital humanities center and other institutional components of the academy are usually fluid, reflecting not only local institutional structures and strengths but also the evolution of technology and scholarly methods.

The digital humanities center has been the major institutional vehicle of the digital humanities, and this will probably continue to be the case. However, it would be mistaken to assume that the self-funded digital humanities center is the indispensable
sine qua non of digital humanities. The potential value of funding and infrastructural development by national government or regional agencies is illustrated by the European experience. In the UK, the Joint Information Systems Committee (JISC) of the Higher Education Funding Councils has been very active since the 1970s in promoting many digital initiatives in a variety of disciplines and has been the main architect of the cyberinfrastructure of UK higher education, while the Arts and Humanities Research Council has funded a series of initiatives including the Arts and Humanities Data Service and an ICT Methods Network (although funding for these was withdrawn in 2008). In France, the national service for funding and carrying out academic research, the Centre National de la Recherche Scientifique, has supported the development of Le centre pour l’édition électronique ouverte (Cléo) which has developed a highly integrated platform for open access academic publishing in the arts and humanities. There have been some major European Union initiatives, such as for example NeDiMAH (the Network for Digital Methods in the Arts and Humanities: www.nedimah.eu), which is mapping the use of digital research across Europe and promoting its coordination by creating an integrated ontology and online forum, and the ambitious DARIAH (Digital Research Infrastructure for the Arts and Humanities: www.dariah.eu), which seeks to build an integrated cooperative network of people, information, and tools to facilitate long-term access and use of research data across Europe. DARIAH has recently established a formal legal consortium to allow members from fifteen European countries to collaborate together in developing a shared European research infrastructure. The international federation, centerNet, a constituent organization of the Alliance of Digital Humanities Organizations, is also seeking to build links between digital humanities centers internationally. The way in which these various international networks and initiatives develop will be fundamental to the future development of cyberinfrastructures for digital scholarship in the arts and humanities.

It is easy to create a digital humanities center; on the centerNet web pages, Lynne Siemens provides a guide as to how to set up a digital humanities center which suggests that the main requirements are enthusiasm and support (ideally in the form of some seed corn funding) from the university’s management (Siemens, 2012). The difficult trick with a digital humanities center is to keep it going ten or twenty years down the road. Most digital humanities centers are established following some successful research grants, and “soft” research funding is generally the lifeblood of the center. Consequently, digital humanities is a land populated by projects. Anne Burdick and colleagues, in their book *Digital Humanities* (2012), see the project as the basic unit of digital humanities: “Projects are both nouns and verbs. A project is a kind of scholarship that requires design, management, negotiation, and collaboration” (Burdick et al., 2012:124). In the view of these authors, the project is the main means by which digital humanities is shaping post-print scholarship and exploding the conventions associated with a book- and article-bound academy. This is perhaps an exaggerated view: projects are equally important in many other types of academic activity, as the large number of non-digital projects including activities ranging from performances to research networks funded by research councils illustrate. The growth of the project in the arts and humanities is perhaps due more to changes in the funding opportunities available to scholars than to the rise of digital media. This raises an important point: the extent to which digital humanities centers pursue research because of its
inherent intellectual interest or simply in order to raise the research income necessary to keep the center in business. As a center grows, securing sufficient new research projects and income to retain all the staff can become increasingly difficult and demanding, and may discourage risk taking. All those who have been involved in developing a digital humanities center will be familiar with the difficult decision as to whether to pursue a project which is not technically or intellectually rewarding but might offer some funding to keep a member of staff in post. For many digital humanities centers, the pressing issues of sustainability are not technical ones but the rather more prosaic one of securing reliable long-term funding to keep the center’s staff in place.

The dependence of centers on soft funding from research grants is both a blessing and a curse. Digital humanities centers are often among the most successful humanities units in grant capture, but their desperation to keep the money flowing can mean that the center and its staff end up on a treadmill, putting in grant applications in which they are not terribly interested just to raise money, thereby losing control of the intellectual agenda of the center. Bethany Nowviskie (2012) in a perceptive lecture reviewing the evolution of provision in the digital humanities at the University of Virginia, perhaps historically the leading institution in the field, has described how the Scholars’ Lab stemmed from previous facilities in the library and IT service. As a result, the Scholars’ Lab has stable funding provided by the library and IT service, and Nowviskie considers this a major factor in explaining its success. Likewise, the Maryland Institute for Technology in the Humanities, another of the most successful US centers, is jointly supported by Maryland University’s College of Arts and Humanities and the University of Maryland Libraries. It is possible that, in our anxiety to affirm the intellectual credentials of digital humanities and demonstrate its parity with longstanding humanities disciplines, we too quickly distance ourselves from libraries and IT services. In funding terms, if nothing else, there is a great deal to say for digital humanities centers having a closer relationship with libraries and IT services.

Another means of creating a mixed economy and reducing financial risk is to develop teaching income. Teaching has been an important component of digital humanities centers since their inception. For example, the early workshops organized by Harold Short and Willard McCarty at King’s College London were fundamental to developing institutional support for the development of digital humanities there. More recently, the organization of summer workshops and institutes has been a major means of spreading the gospel of digital humanities. The Digital Humanities Summer Institute, a week-long program held at the University of Victoria in Canada, attracts annually over 600 participants. Many centers offer full Masters’ programs and a number are now offering undergraduate programs. But while teaching can provide a means of ensuring the financial sustainability of the center, it creates its own difficulties and dilemmas. In designing a digital humanities teaching program, it can be difficult to ensure the right balance of practical skills and reflective analysis. A program that simply engages in a highly theorized form of “digital studies” will not give sufficient weight to the aspiration of digital humanities to transform scholarly practice and communication. On the other hand, teaching that focuses on, say, programming and technical skills runs the risk of overlooking the potential of the humanities to provide new critical insights into our digital praxis. Above all, there is the problem of who undertakes this teaching. For most university courses, a doctoral qualification
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is an essential qualification for teaching. However, the staff in digital humanities centers with the deepest technical understanding and awareness of digital humanities practice often may not have doctorates. How far and in what way do they get involved in the teaching program? Is a doctorate an essential qualification to being a fully paid-up member of the digital humanities community?

These tensions around staffing and career structures are at the heart of the dynamics shaping the institutional infrastructure of the digital humanities. For Jerome McGann (2014:130–1), the very existence of the various digital humanities centers, labs, and institutes represents (paradoxically) a rejection by humanities academics of digital scholarship, a wish to keep at arm’s length the different types of people and skills required for digital work. He points out how:

The emergence of digital technology has brought a new and crucial populace into the university. So far as the university’s political and social structure is concerned, they are employees hired to serve the faculties. I leave aside the fact that these people are often scholars of distinction in their own right. (McGann, 2014:130)

Although the skills of these staff are essential for digital humanities scholarship, the structure of the institution separates them from regular faculty. McGann points out that, to make matters even more difficult, these staff “are an expensive population to support, commanding high salaries, often higher than the faculty persons they might be working with” (2014:130). These tensions are also explored by John Bradley (2012) in his description of the development of the Department of Digital Humanities at King’s College London. Bradley rejects the idea that the vision and shape of a project should be determined by the leadership of academics from conventional humanities departments. Instead, he envisages digital humanities research as being taken forward by shared discussions involving a range of academic and technical specialists, with the modeling work undertaken in the development of digital humanities projects representing a major research activity. Bradley sees the digital humanities researcher as equivalent in status (if not in background) to the conventional humanities academic, and takes issue with Jennifer Edmond (2005), who has argued for the creation of a profession of “digital humanities intermediaries” acting as brokers between humanities researchers and technical staff. For Bradley, the process of expressing humanities scholarship in digital form is in itself an act of research just as important and equal in intellectual weight to more conventional humanities scholarship. Bradley expresses concern that in many institutions technical work is regarded as “a kind of support work – perhaps, in extreme cases, as similar to what is done to the academic’s car by his garage mechanics” (Bradley, 2012:11), and deprecates the use of the term “techie” by humanities scholars “who don’t know and understand the work we do.” Abhorring such distinctions, Bradley declares that “innovation in the digital humanities often arises out of the pooled talents of a range of experts, and in the best environment where this happens there is recognition and support for the interlinked actions of many players” (Bradley, 2012:11).

Bradley describes a kind of institutional paradise for digital humanities; the question is the extent to which it has ever been achieved and the scale on which it is likely to be achieved. It is striking, for example, that notwithstanding the philosophy described by
Bradley, very few of the more technically oriented staff from the Department of Digital Humanities were submitted by King’s College London to the British research assessment exercise in 2014, suggesting institutional pressures in another direction. In general, the ability of digital humanities centers to provide adequate career development opportunities for their staff has been patchy. Digital humanities centers are frequently created by groups of enthusiastic and charismatic academics who have realized the potential of digital technologies to transform their subject area. They use research income to recruit some students with a talent for coding, perhaps persuade some people with a professional computing background to join them or offer someone from the library or IT services a more interesting job. Everything goes well. More research income is secured, and the team grows and jells. The students had meant to go on and do a PhD, but the work in the center is more interesting and they are after all working in a university. But the more successful the research team is, the more difficult it is to secure the money to keep the team together. Some grant applications fail, and some longstanding members of the Center lose their jobs. Then the indispensable geographic information systems (GIS) specialist, conscious that his skills are in demand in industry, asks for a promotion. The university administration say that there isn’t a promotion mechanism for someone on his type of contract. One of the most talented of the staff who came in as student notices a lectureship in digital humanities elsewhere. With 10 years’ experience on a dozen digital humanities projects, this staff member is superbly qualified for an academic position in digital humanities, but the lectureship requires a PhD, which she never completed because she was so devoted to the work of the center. It gradually dawns on most of the staff of the center that they have become trapped there, doomed constantly to try and secure income from a dwindling stream of research income. Their commitment to the work means that they will probably stay, but their hopes that they were contributing to a new form of academic enterprise and that they might have an exciting new type of career have been betrayed.

This is the situation in far too many digital humanities centers: very talented, scholarly and knowledgeable staff with vast experience of the creation of digital humanities projects who have devoted themselves to securing the projects to keep the center afloat and have never had the opportunity to build the academic career in digital humanities they would like. To some extent, this is an unavoidable result of the way in which academic career structures have developed in recent years. One of the most unattractive features of American university life is the apartheid between “faculty” (with those holding tenure regarded as the highest point of human evolution) and other “staff.” While the intellectual protections provided by tenure are undoubtedly necessary, this does not justify the effective denigration of other intellectual workers such as librarians, archivists, and IT specialists. As Bradley (2012:12) emphasizes, this leads to the unstated assumption in digital humanities that “faculty” provide the vision, while the technical staff implement it. One of the most unfortunate developments in UK higher education in recent years has been the importation of this distinction between “academic staff” and “professional services,” with librarians and other cognate groups losing their longstanding “academic-related” status. In other European countries, similar academic hierarchies frequently mean that digital humanities skills are seen as secondary, and academic leadership and vision is regarded as the most important requirement. It is perhaps in challenging these antiquated power structures that the
digital humanities has one of its best opportunities to transform the academy, but one
must be careful not to run away with utopian enthusiasm. The adjunct crisis in the
United States shows how attacks on the privileged position of academic staff can easily
prove counterproductive. Yet somehow we need to find a means of moving towards a
reshaping of academic structures so that it can accommodate both the writer/researcher
and the programmer as intellectual equals and achieve that vision of a shared enterprise
described by John Bradley.

For Jerome McGann (2014:1), the digital humanities center represents in many
ways a failure of the academy adequately to engage with the way in which the whole
of our cultural inheritance is being recurated and re-edited in digital forms and institu-
tional structures. McGann points out how, in large projects like Eighteenth Century
Collections Online and Google Books, the lead has been taken by large commercial
publishers and libraries and there has been little involvement hitherto by scholars of
the period, notwithstanding the efforts of projects such as 18thConnect to retrospect-
tively fix the resulting problems. McGann suggests that part of the reason for this lack
of scholarly involvement is the liminal position of the digital humanities center and its
staff within universities. Similarly, in another powerfully argued piece, Peter Robinson
(2014) notes that the growth of the digital humanities since 1995 has been largely due
to the support from research funders and the resulting growth of digital humanities
centers, which have produced “scores of [projects], worldwide, offering (again and
again) access to outstanding scholarship and to resources otherwise inaccessible”
(Robinson, 2014:245). This project work has also fed into the growth of shared tools
such as TEI. However, Robinson sees this phase as having now reached the limits of its
expansion and suggests that a backlash against this model is now evident. Robinson
notes that even the 200 institutions belonging to centerNet represent a tiny proportion
of 200,000 universities worldwide, and it is unlikely that we will ever see a situation
where there is sufficient funding to allow most of these universities to have a digital
humanities center. The digital humanities center was an appropriate response to a
situation where there were few people with the skills, equipment, and resources to
undertake digital scholarship. We are now in a different situation:

Now we have millions of digital objects to address, as the whole body of world knowledge
and culture is translated into digital form. Now we have in the Internet a medium that
unites communication, collaboration, and publication into an instantaneous and fluid
whole. In a moment, we can see what someone else has created, we can add to it, publish it –
and in turn, another person can see, add, publish. And “anyone” is anyone with a computer,
anyone with a mobile phone – more than a billion people. We are no longer pioneers for
a few. The whole world is turning digital, and we are part of it. (Robinson, 2014:247)

For Robinson, the digital humanities center has fulfilled its role, and we now need to
think about the type of connectivity necessary to create large-scale cyberinfrastruc-
tures. These criticisms reflect the criticisms of Diane Zorich, who notes that digital
humanities centers are prone to becoming standalone silos engaging in “boutique
digitization” which limit scale and connectivity:

First, the silo-like operation of current centers favors individual projects that are not
linked to larger digital resources that would make them more widely known within the
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research community. When one examines the projects of the 32 surveyed centers en masse, one finds hundreds of projects of potential interest to larger communities that are little known outside the environs of the center and its partners. Moreover, in the absence of preservation plans, many of these projects risk being orphaned over time, as staff, funding, and programming priorities change. In the absence of repositories that enable greater exposure and long-term access, the current landscape of many silo-like centers results in unfettered and untethered digital production that will be detrimental to humanities scholarship.

The silo-like nature of centers also results in overlapping agendas and activities, particularly in areas of training, digitization of collections and metadata development. With centers competing for the same limited funding pool, they can ill afford to continue with redundant efforts. (Zorich, 2008:49)

Maron and Pickle (2014), building on some of these concerns, paint a picture of digital humanities work often having an uncertain place in the overall management of data and computational activity within universities. They suggest that, in order to enhance the impact and longevity of digital humanities work, it is necessary to have more integrated institutional support and methodologies.

The common thread in all these recent criticisms of the digital humanities center is the need to scale up the work of the centers and to create greater connectivity. Exactly how this can be achieved is often left unclear. The most concrete suggestions are made by Peter Robinson (2014), who argues for the development of new forms of online collaboration by scholars working with the millions of digital objects now available so that “What Google Maps and TripAdviser do for hotels and restaurants, what Orbitz and SkyScanner and Expedia do for airline schedules, we could do for books, manuscripts, texts, knowledge” (Robinson, 2014:253). Robinson sees collaboration around tools, rights, and access as essential to achieving this, and argues for a shift from content creation towards collaborative work on existing data. This is a beguiling vision. While humanities is frequently depicted as the domain of the “lone scholar,” it has nevertheless always been a highly collaborative endeavor. We may gather our data separately, but we then often share and discuss it. What we need to do is to transfer this behavior into an online environment, so that we collaborate and link together our explorations of libraries and archives. However, such collaborative environments will still require some kind of technical support and focus, and the digital humanities center will continue to have a role here. If digital humanities is to have an impact on our future digital state in a world of “big digitization” by large commercial interests, increased cooperation and links will be essential. The work of centerNet will be vital in fostering such collaboration. As Robinson notes, the role of the European DARIAH project, with its explicit focus on the sharing of data and the creation of infrastructures to facilitate this, also points a way forward. The creation of large-scale research infrastructures of the type envisaged by DARIAH can be seen as representing a digital parallel to the emergence of library consortia in the twentieth century, and may prove to be equally influential in the way in which future scholars access information and disseminate their scholarship.

This still leaves uncertain the question as to how digital humanities relates to the mainstream academy. McGann sees the digital humanities labs and centers as a means of distancing academic engagement in the development of digital infrastructures.
Does this mean that we should as a community be pressing harder for the development of digital humanities centers into full-blown academic departments? There is of course a risk that by corralling digital humanities into a separate department, we provide an even more effective silo which discourages the adoption of digital methods in other disciplines. However, it is more likely that digital techniques will become so commonplace in other disciplines that the function of digital humanities as a separate activity will be questioned. Peter Webster of the British Library, for example, has remarked that "The end game for a Faculty of DH should be that the use of the tools becomes so integrated within Classics, French, and Theology that it can be disbanded, having done its job" (Webster, 2013). This is perhaps an oversimplistic view of both the nature of digital methods and the structure of humanities research. As Robinson (2014:255) observes, there will always be a need for trailblazing new developments on the intersection of humanities and information technology, and it is undoubtedly in this kind of pioneering scientific work that an important part of the future mission of digital humanities lies. But what is the most appropriate nature of the space in which such work can be taken forward? As we have seen, the center, for all its strengths, has significant drawbacks, and may have outlived its usefulness. The academic department seems too constrained by past traditions easily to cope with the mixture of skills and perspectives which the digital humanities will require. We may perhaps need to think about the development of specialist labs and units, with a more focused scientific agenda than the present digital humanities centers, perhaps analogous to the units in which systems biology is studied or the "dry labs" of bioscientists.

Digital humanities centers have played an important part in transforming the landscape of humanities scholarship, but as we seek to build and extend our digital infrastructure to cope with the new digital world, the mission will be a twofold one: first, to build greater connectivity and collaboration between and across existing centers, resources, and practitioners; and, second, to ensure that we do not lose our pioneering spirit and continue to seek out and explore technologies that will shed fresh light on our cultural heritage and inheritance. In pursuing that mission, building and creating networks is the most important activity of all. We must build alliances with coders, librarians, curators, photographers, archivists, artists, project managers, and all the rest of new professions and skills. This must inherently involve restating where the academic sits into that network – wherever it is, it is not automatically at the top of the tree. Those engaged in digital humanities work in universities also need to forge alliances with those bodies outside the academy that shape our digital and cultural landscape: libraries, archives, galleries, opera houses, theatres, orchestras, dance companies, broadcasters, as well as digital artists, and startups of all kinds. The digital humanist should be an explorer in this new cultural landscape, and in doing so should be constantly seeking to create new cross-connections and new links.

As Mark Sample has eloquently stated:

"don’t sit around waiting for a digital humanities center to pop up on your campus or make you a primary investigator on a grant. Act as if there’s no such thing as a digital humanities center. Instead, create your own network of possible collaborators. Don’t hope for or rely upon institutional support or recognition. To survive and thrive, digital
humanists must be agile, mobile, insurgent. Decentralized and nonhierarchical. Stop forming committees and begin creating coalitions. Seek affinities over affiliations, networks over institutes. (Sample, 2010)

The existing infrastructure has provided a very effective means of building digital humanities in its first phase, but we must be wary of putting all our energy into preserving that infrastructure. The institutional landscape of the digital humanities must evolve and change as the digital world changes, and the watchwords will always be flexibility and nimbleness. The digital humanities has always been pragmatic and effective at building alliances and connections, and it needs to draw on these strengths in developing its next phase.

References and Further Reading


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It is appropriate to start a chapter on sorting the digital humanities out with questioning whether we really need to sort it out at all. This is a warranted question, given all the time and effort that has gone into defining, consolidating, expanding, questioning, and institutionalizing the field (Gold, 2012; Terras et al., 2013). In a workshop held at Umeå University in December 2013 about the future of the field, one of the participant groups suggested that the questions we will ask in five to seven years will be the same, but we will have different tools with which to answer them. There is a suggestion of circularity here, and looking at the history of humanities computing and the digital humanities, it is quite clear that many of the arguments resurface over time. It is almost comforting to read Martin Wynne’s *Humanist* list comment (2013) on the reorganization of digital humanities at Oxford, and relate it to Lou Burnard’s text (2002) on the reorganization of the same unit about 10 years earlier. They both relate to institutional placement and the perils and advantages of having a servile function within the university system. There are a number of issues like this one that can be traced over time, including reward systems, alternative careers, the value of the scholarship produced, and disciplinary boundary making. It may well be that some of these often inward-looking issues will never be sorted out, and that there are other issues that do not surface in the discussion about the field. In this chapter, I suggest that we need to revitalize the discussion.

Geoffrey Bowker and Susan Leigh Star (1999) demonstrate how classificatory systems have meaning in a very material sense and how categories can be invisible and be made visible. The digital humanities clearly does not consist of numerous discrete blocks that can be sorted out, and there is no way of solving the puzzle of digital humanities in any definite fashion. However, the notion of sorting out helps to frame the question.

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of the future of the field in a way that indicates that a solution is possible. The main argument of this chapter is that this solution does exist, not a one-size-fits-all or a complete solution, but a way of thinking about the digital humanities that brings together the humanistic and the digital through embracing a non-territorial and liminal zone. Furthermore, the idea of sorting out the field draws our attention to its structures and classifications and forces us to think about the building blocks, categories, and issues that comprise the field.

This sorting out is intimately related to different epistemic traditions, disciplinary perspectives, and epistemologically situated technologies associated with the digital humanities as an intersectional field. There is a great deal of negotiating going on in such zones, and I argue that there has to be a willingness to understand other traditions without necessarily giving up disciplinary integrity (cf. Ratto, 2012). Furthermore, epistemic technologies can play a central role in challenging knowledge traditions and developing new knowledge, which requires us to be reflective of our own practices and assumptions and be willing to engage with other epistemic positions.

This chapter starts with a discussion of the status of the digital humanities and the common assumption that it is a field in disarray. I maintain that making the digital humanities into an institutionalized discipline can be counterproductive, in giving away some of the distinct advantages of a liminal position. This discussion is followed by a provisional analysis of the current situation that indicates that there is an opportunity for moving ahead productively, but that there are a number of issues and stances that need to be addressed. I argue that the territorial ambitions of some of the digital humanities organizations can be problematic at a time when the field is being negotiated and expanded. The second part of the chapter responds to a call for action by Melissa Terras from the perspective of the work going on in the Alliance of Digital Humanities Organizations (ADHO) and suggests possible actions and strategies required to move forward. These are embedded in a model of digital humanities that I will present. I posit that the institutional instability that has often been identified as a problem in the history of the digital humanities can be a key factor for developing the field. The chapter ends with a proposal for a code of conduct for the field and a list of actionable suggestions for the digital humanities.

The Ever-emerging Field of Digital Humanities

It is often assumed that the digital humanities is in flux and not particularly stable as an institutional construct. While this might be true to some degree, there are obviously constants to the field. For instance, there is almost always a relationship to traditional humanities disciplines such as English and history, some sort of technological infrastructure, and a degree of perceived incompatibility with the system of higher education (whether it be reward systems, the view of the humanities, or allowances for alternative careers).

Furthermore, this instability has probably been influenced by there being an open, visible, and lively discussion about the field. While this is not a situation unique to the digital humanities, it seems more likely with interdisciplinary fields and fields undergoing change, such as art history in the 1980s and 1990s (Klein, 2005:113) and
American studies in the late 1990s (Klein, 2005:168). However, the extent to which the debate has taken place online is likely to be unique to the digital humanities. Many of the best-known people in the field debate on Twitter together with others, including graduate students and officers at funding agencies such as the National Endowment for the Humanities. Online forums are often active, and when the Postcolonial Digital Humanities initiative hosted an open thread on “The digital humanities as a historical ‘refuge’ from race/class/gender/sexuality/disability?” (Koh and Risam, 2013), there were 165 comments, most of them quite substantial, over five days. As the history of the field shows, there has been a longstanding solid online engagement, with the Humanist list being one of the first academic email lists when it was started in 1987 by list curator Willard McCarty. This relative openness and outspokenness has undoubtedly contributed to the sense of the field as fractured and unstable, as polemic discussions have taken place live in public. Furthermore, the public and repeated preoccupation with the organization, history, and future of the field across media can come across as inward-looking and self-referential. The argument here is not necessarily that this is not true, but that we have to be sensitive to the ways in which the field is constructed, projected, and enacted across media and communication channels.

The stability of a given knowledge domain is among other things linked to how it is categorized in the academic system, its disciplinary heterogeneity, and the discourse about the area. The descriptor “discipline” is normally taken to denote a more static and less interdisciplinary area than “field” or “studies.” What gives disciplines a certain degree of stability is that they are associated with an epistemic tradition, objects of inquiry, assumptions, theories, methods, ways of sharing research, and career paths (Repko, 2008:4–5). There is a certain sense of unity associated with disciplines, although that does not mean that disciplines are static and unchanging (Klein, 2005:50). Disciplines and fields change over time, and while it might not be productive to suggest a developmental or evolutionary trajectory, there are patterns to disciplinary changes (Becher and Trowler, 2001:43). A common movement has been towards specialization, although this does not always lead to the formation of new disciplines (Weingart, 2010:11). There are also multiple possible trajectories of different kinds of interdisciplinary formations (Klein, 2010:22). Undergoing a formational stage or remaining in an interdisciplinary state is not unique to the digital humanities, but the field has certainly been trapped for a long time in an uncertain state without becoming a discipline or getting reasonably established as an interdiscipline or an academic area (such as American studies). I suggest that there are at least three reasons for this elongated status.

Firstly, there has been an incompatibility between the digital humanities and the institutional expectations of academia. When looking at the history of the field (as humanities computing), it is clear that in many cases the digital humanities could not secure an institutional position that easily accommodated a line of work that was different to most other areas in the humanities. Such work included operating between traditional university structures such as departments and disciplines, engaging with technological infrastructure, and needing to engage a variety of professional competencies for carrying out the work. That humanities computing partly was institutionalized as service centers (with varying degrees of autonomy) and institutes
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(maybe more akin to humanities centers than anything else) has probably added to the incompatibility. It should also be pointed out, however, that we are concerned with different types of incompatibilities, and that over the years a discourse of dissatisfaction has developed within the digital humanities about the humanities as a whole and the academy.

Secondly, having an institutional position outside the traditional structures of academia can be central for carrying out certain kinds of work. Traditionally, many digital humanities centers and platforms have operated fairly broadly across the humanities. It is easier to engage with other humanities disciplines without being seen as a competing discipline or as affiliated with a specific discipline such as English. There are thus benefits to this liminal position. Furthermore, the digital humanities has more recently become a platform for engaging with the future of the humanities more broadly. This is an activity that speaks to all of the humanities, not least junior scholars, and which can be easier to organize from a position outside of traditional departments or disciplines. If there is interest in renewing the humanities at large, it simply makes more sense working with the traditional disciplines from an in-between position, rather than from a distinct disciplinary position.

Thirdly, the digital humanities currently brings together a range of epistemic traditions, disciplines, and perspectives. The lively dialog in and about the field is partly a consequence of this multivocal situation, and the variety of positions makes institutionalizing efforts difficult. Bringing together different traditions requires a great deal of negotiation, and the formation of a new discipline normally leads to a decentering of particular disciplinary identities and eventually to the establishment of a distinct epistemic regime. There can actually be a considerable strength in an unresolved situation, as it is easier for different knowledge communities to gather around boundary objects such as the digital without having to become institutionalized as a discipline. Arguably, this will also produce stronger scholarship than if the digital humanities attempts to operate from a more closed-off position.

It is not surprising that there would be an interest in turning the digital humanities into a discipline, given the history of the field and the institutional template of academia. This is one way of sorting out the field, but not the only one, and while there is no single solution, I argue that the very reasons why the digital humanities may be seen as unstable are actually good reasons for not moving in the direction of becoming an institutionalized discipline.

A Provisional Analysis of the Current State of Affairs

A major development over the last couple of years has been a substantial expansion of the field, larger institutional support, many more actors, and a range of new expectations. This has led to a substantial pressure on the field as traditionally conceived, which is unsurprising given the history of the field as a fairly narrow (but important) enterprise and given the current visibility and attraction. This pressure comes from humanistic traditions with a digital engagement that have not been seen as a major part of digital humanities (such as new media studies and rhetoric and composition), from incoming scholars in fields such as gender studies and media studies, and from
humanistic and institutional leadership. There are also alternative digital humanities platforms with different notions of what the field can be, such as the Postcolonial Digital Humanities movement and the Humanities, Arts, Science, and Technology Alliance and Collaboratory (HASTAC).

The part of the digital humanities community that identifies with a $40$- or $50$-year-long tradition sometimes makes the point that their past struggles, often related to being institutionally marginalized, are not acknowledged and that there is a risk of giving away what the field has achieved at a point when there is finally leverage and support for the digital humanities. In a provocative Humanist post, Craig Bellamy (2013) opines that:

Sure I am being a gadfly, but if anyone can use the term “digital humanities” for whatever purpose (and others will believe them), then the past 40 odd years of work in this field will be wasted.

While this is almost certainly not a representative standpoint of the community, it is important to acknowledge that a tension does exist here, and that this tension is not only about institutional prestige or resources, but also about epistemology and different epistemic traditions.

It would be wrong to assume, however, that this expanded variety of digital humanities is mainly a result of interested parties coming to the field at a time when it has considerable traction. Rather, the digital humanities organizations, mainly coming out of humanities computing, were part of taking on this new role for the digital humanities. In particular, a group of key members of the humanities computing community worked towards forming the Alliance of Digital Humanities Organizations in the early 2000s, publishing the Blackwell Companion to Digital Humanities (Schreibman et al., 2004), renaming the annual conference series (from the joint annual conference of the Association for Computers and the Humanities and the Association for Literary and Linguistic Computing to Digital Humanities Conference) and were also influential when the National Endowment for the Humanities created its Initiative for Digital Humanities in 2006. There was apparently a realization that humanities computing would not be the flavor of the 2000s and that another scope and packaging were needed. An intriguing question is to what extent humanities computing leadership realized that they were also staking out a pathway that would eventually decenter their own community. There was resistance inside and outside the leadership group and, at times, fairly heated discussions. In any case, at least parts of the larger community did not embrace this reorientation, or more likely it was simply not clear that a shift in names would be more than exactly that. It would also seem that much of the institutional groundwork did not actually change, and that the grounding in the epistemic tradition of humanities computing prevailed.

The pressure described at the beginning of this section has stimulated, and even forced, some more considerable change. This is partly a result of the digital humanities now being a more diverse set of communities, but also because of discursive changes and actual reorientations. The uptake of the idea of big-tent digital humanities is an example of this shift, but arguably with minor impact. As I have argued elsewhere, the tent is still largely made of the same kind of epistemic fabric and is seen as exclusionary
and territorial (Svensson, 2012). Indeed, some of the moves by the digital humanities organizations can be seen as aggressive at a time when it is more important to focus on discussing the core values and directions of the field. While the big tent is not overly aggressive as a discursive construction, the global territorialization of the field is more noteworthy in this regard. Again, this concerns a series of name changes and also new territories being added to the map. Examples include the renaming of the Association for Literary and Linguistic Computing to the European Association for Digital Humanities in 2011, and the recent addition of Australasian and Japanese associations.

I am not arguing that there is anything wrong with this territorial reconfiguration and expansion, but given the tension and pressure already indicated, these moves can be seen as challenging. The most aggressive organization, however, is centerNet, which describes itself as “an international network of digital humanities centers.” It is aggressive in at least four ways. Firstly, it assumes that the center is a key building block for the digital humanities. Secondly, it is clearly embedded within the traditional digital humanities organizations, and thus cannot be said to represent the digital humanities generally. Thirdly, it attempts to spread this model throughout the world, and it is unclear whether all the listed centers have actually signed up. Finally, it strives to represent the digital humanities in a number of strategic contexts such as the Consortium of Humanities Centers and Institutes and several European-level initiatives. While each of these points is part of the seemingly successful and defendable institutional strategy of centerNet, a central question is whether this strategy is the best given the ongoing negotiation and reorientation of the field. However, it may be that centerNet is currently moving towards a less aggressive stance. The composition of the newly appointed editorial board for DHCommons, a centerNet publication, is diverse and fairly inclusive.

The digital humanities is obviously much more than the tradition of humanities computing and the associations that descend from this tradition, but this particular tradition is institutionally significant. It is understandable that it did not automatically embrace large-scale changes that might not be compatible with what was seen as the core orientation of the field. One point of tension deals with the discourse associated with some of the other actors, including organizations such as HASTAC, which partly focus on the reformation of the university and the digital humanities as a transformative agent. Such discourses sometimes do not touch ground and can be a way of using the field as a tool in an institutional fight to leverage the humanities. These are important goals and sentiments, but there can be a real gap between on-the-ground computational work and far-away institutional visions. Similarly, initiatives such as Postcolonial Digital Humanities take for granted a critical (and important) vocabulary of power, postcolonialism, genealogy, discourse, gender, and globalization. This vocabulary may not feel familiar to a community not normally engaged with this kind of discourse. This is not just a matter of the actual issues at stake, but the penetrability or impenetrability of discourse and practices surrounding different epistemic traditions. Interestingly, the working definition of digital humanities employed by the Postcolonial Digital Humanities website is “a set of methodologies engaged by humanists to use, produce, teach, and analyze culture and technology” (Risam and Koh, undated). This definition could be said to be imposing a methodology reading
on the digital humanities as a field that is more akin to the humanities computing of the past than present-day digital humanities, and hence locking digital humanities in a form that is arguably by definition less susceptible to their reformational agenda.

I argue that all the perspectives discussed up to this point are important to the digital humanities, and that the coming together of these and other epistemic traditions is critical to the further development of the field. This does not mean that the integrity of such traditions should necessarily be challenged, but rather that everyone will have to adapt to some degree and there have to be sites and affordances for this exchange to actually take place. Such processes will be looked at in more detail in a later section, but for now it is worth pointing out that such adaptive work requires a common purpose, willingness to engage, and some degree of humbleness.

Accepting the Challenge

Critiquing, historicizing, and contextualizing the digital humanities is important, and there is a growing literature contributing to this understanding. There is a risk, however, that this work does not actually impact the field in that it does not necessarily go from critique to any suggestions on how to move forward in any comprehensive and sophisticated way. There is also a risk of getting caught up in binaries and specific epistemic positions, not least when debates are quick and heated.

This is not to suggest that the community (to the extent that there is a single community) is incapable of handling the situation, or that there is an easy solution (to the extent that there is anything to solve), but that the digital humanities composes a complex and intriguing construct with considerable potential and leverage. Needless to say, the digital humanities is not the only complex institutional formation. Another example is the development of American studies from the 1920s onwards, which has been characterized by a series of debates and institutional strategies (Klein, 2005: Chapter 7). Lucy Maddox argues that because of the uncertain status of American studies over time, there has been a critical examination not least from within about “its methods of inquiry, its aims, its intellectual coherence, its relationship to other disciplines and fields of study” (1999:viii). This description resonates with the situation of digital humanities. There are certain factors, however, that contribute to the potential for the field not to get as fully mobilized as other fields, including institutional incompatibility, a large epistemic range, epistemic technologies, the epistemologically aggressive stance of some individuals and some institutional actors, and substantial internal and external pressure.

Melissa Terras poses an interesting challenge in a text on critiques of the digital humanities and how to be constructive about solutions (from the point of view of her work in ADHO):

Most people “within” Digital Humanities … are people who want Digital Humanities to be as open and as great as possible. This whole field has been built on the hard work of many academics who have given up their free time to try and entrench the use of computing in humanistic study into an academic field of enquiry, and it wouldn’t exist without them, even if the form it exists in is currently imperfect. I would say, from where
I sit on various committees, that people want to keep DH growing, and growing healthily. So if there are things wrong with DH, then do give concrete examples, or propose concrete solutions, so they can be taken forward. They’re listening — we’re listening. (Terras, 2013)

While this is a laudable attitude, the argument is also embedded in the institutional frame of digital humanities and its history. It is not as simple as everyone wanting the field to be “as open and as great as possible,” since “open” and “great” are keyed to one’s epistemological position. This is why the big tent of digital humanities is not as open as it may seem at first glance. Regardless, Terras’s challenge is a worthy one, and the rest of this chapter will be an attempt to respond to this challenge. One point of departure is that the best and most effective way to develop and renew the field is to work with the ADHO. While it would have been possible to propose a wholly new organization or framework, the ADHO seems like the best possible platform (at least at this point). Also, it would make little sense and show little respect to respond to Terras’s challenge through choosing not to engage with the ADHO.

The response will be on different levels of concretion. An initial discussion of epistemology will lead to a contoured model of the digital humanities. This model will then be used to discuss specific issues, and whenever possible, solutions will be suggested. Again, as I have argued, there has to be an awareness that there is not one solution, and that some of the problems may not actually be problematic. The solutions suggested, or any attempt at comprehensively renewing the digital humanities, will need be embedded in a set of strategies to actually make such renewal possible. A number of such strategies are proposed in the code of conduct and list of action points that end the chapter.

On the Epistemology of the Digital Humanities

In a study of archaeological research with a strong technological component, Matt Ratto (2012) investigated situations where multiple epistemic traditions come together, and when technology plays a significant role. The research carried out by the archaeologist in the study was refuted by three communities for three different reasons, and Ratto uses the term “epistemic double-binds” to describe this situation. The concept of epistemic double-binds describes the inability to fulfill the simultaneous requirements of several knowledge communities (2012: 579). Ratto’s case study concerned the technology-rich reconstruction of pre-Roman temples with a particular focus on the terra cotta roofs, where a key concern was to challenge the standard explanation of images on the façades of such temples. They had been seen as propaganda for cultural elites, but this view was challenged through a virtual-reality construction, which seemed to demonstrate that the elite could not actually see the images. The traditional classical and terra cotta archaeologists were hesitant to see the reconstruction as a legitimate statement about the past, while more technologically oriented archaeologists argued that the reconstructions were not realistic enough. A third community, computer programmers and scientists, did not find the reconstruction innovative on a technological level. However, it could be argued that the refutations are also in fact an indication of success in the sense that the investigated project apparently challenged...
three traditions at the same time. While this is not necessarily a guarantee of the quality of the work, the response demonstrates engagement across epistemic traditions (including the “home” discipline).

Ratto usefully points to the difficulty of bridging between technically inflected and humanities-inflected epistemological conditions. Modeling, visualization, and simulation technologies can be said to be epistemic technologies. Through their epistemological embeddedness, such technologies can point to fractures between and within humanities disciplines, and they can also reinforce and develop positions within scholarly domains (2012:568). Since the digital humanities is a technologically embedded field, epistemic technologies are bound to play a significant role. For instance, markup and encoding technologies impose certain ways of seeing and interpreting the world, resulting in clashes between the computational expertise associated with making such structures and some disciplinary scholars who find incompatibility between their work and standardized encoding schemas. And digital humanists coming from gender or postcolonial studies may oppose the computational paradigm and the encoding structures because they see little recognition of the structures of power and oppression built into encoding schemas. Similarly, computationally driven enterprises such as cultural analytics and maker labs are deeply embedded in terms of their epistemology. A traditional art historian encountering a video wall visualization of a subset of artwork may not accept the argument that the visualization will allow open-ended critical explorations of art. Activities such as maker labs, hackathons, and that-camps embed ideas about technologies and the world that do not often seem to be steeped in the real world. As Mattern (2013) points out:

not only does the hackathon reify the dataset, but the whole form of such events – which emphasize efficiency and presume that the end result, regardless of the challenge at hand, will be an app or another software product – upholds the algorithmic ethos.

A fair degree of work produced in the digital humanities does not get to the point of double-binds, as there is too little in-depth critique across knowledge communities. There may therefore not be a constructive way of preventing or resolving such binds if they were to occur. There is often critical and epistemic engagement coming from only one position, and often this is not the “home” discipline or area (outside the digital humanities). By and large, the humanities as a whole has had little interest in engaging deeply on a critical level with the work produced within the digital humanities. Overall, the critique tends to be shallow as a result of being caught up in binary oppositions, structural issues, and institutional parameters. Also, it would seem that there are other factors restricting in-depth critique. The communal sensibility and sometimes defensive stance of digital humanities (in particular humanities computing) can restrict a more nuanced critique from that group, and lack of engagement with the materiality of the digital in traditional disciplines may preclude a knowledgeable engagement with such work (or elicit a blanket negative response), even if it is based in the discipline. If a project or argument based in a humanities discipline gets a blanket rejection from both the discipline and the digital humanities (as humanities computing), we are concerned with an epistemic double-bind, but one that probably does not show the depth of the critique presented in Ratto’s case study. It is also
possible that the digital humanities more broadly (not humanities computing) would reject the project or argument as too disciplinary or too technological, and then there would be a three-part refutation. An interesting question is whether resolving the double-bind is always the most productive strategy. Not ending up with epistemic double-binds may be an advantageous goal, but if the critique is too bland and unitary, there might be a lack of interpretative and conceptual depth. Ultimately, however, going through a process of establishing epistemic double-binds and then resolving them would seem most transformative.

Where does this lead us? For one thing, the field always seems to fail to deliver on at least some level, whether it be intellectual robustness and citations in top journals; degree of openness; technological, theoretical, or material engagement; disciplinary recognition; institutional status; public engagement; or possibly quality of the work produced. While there will never be – nor should there be – a full solution, the response could be to dig deeper epistemologically and cherish the differences, rather than to institutionalize the field as a more unitary discipline. In many ways, the digital humanities is already a place for this kind of work, but the lockups described earlier seem to block some of the potential of this position. Becoming a discipline might result in an avoidance of double-binds and epistemic challenges, but such a development appears unrealistic and is not the best way to develop the field. It seems that the different traditions are just too dissimilar and institutionally unlikely to come together in a tight disciplinary formation. I argue that the coming together of different disciplines, traditions, and modes of engagement in a looser configuration can be quite productive. Furthermore, a liminal position is also useful for being able to challenge different actors and to be engaged in a renewal of the humanities.

I advocate an epistemologically open field that has an institutional core with integrity and an ideational foundation, and works with the whole of the humanities and outside actors. It accommodates several overlapping modes of engagement between the humanities and the digital (study object, tool, medium of expression). Many members of the community are affiliated with both the digital humanities and a field, whereas others are based mainly in the digital humanities. Importantly, this institutional core incorporates members coming from the tradition of humanities computing as well as humanities disciplines and other traditions and specialties. While much work is placed between different traditions, there is acceptance for both specialized humanities computing work and monograph writing as well as many other practices, and these ideally engage with each other through a shared platform and identity.

The field is thus simultaneously a place for disciplinary engagement and for intersectional epistemic work. As noted previously, many of the tensions and institutional challenges associated with the digital humanities can be related to this intermediate position. I have argued that instead of abandoning such a position, we need to embrace and develop it. The epistemic tension demonstrated by Ratto’s work can indeed be useful or even necessary to carry out some work between the humanities and the digital.

There are some frameworks that can be useful when exploring this intermediate position. Work on trading zones can illuminate how epistemological boundary work is carried out (Galison, 1999). According to Galison’s work on physicists from different paradigms, knowledge communities can be coordinated around objects of study, even if they disagree as to their understanding of the objects under study and the
exchange process. One important point here is that agreement is not always possible or necessary. However, the transactional metaphor at play here can seem to underplay the dynamic, critical, and emergent qualities of such operations. The concept of temporary autonomous zones is very different in this sense (Bey, 1991), as it stresses zones of free culture at the fault lines of controlled systems (often political). Emergent creativity and work on the boundary lines are key parameters, and the work on temporary autonomous zones can inform the digital humanities about the importance of agility and not being institutionally too stable. However, the digital humanities will always be more institutionalized than such zones. Indeed, it would seem advantageous for the digital humanities to embody both systematic epistemic work around shared objects and some of the dynamic and creative qualities associated with temporary autonomous zones. The work done by language and power structures in intersectional work is further explicated by research carried out on contact zones (Pratt, 1991). There is a sensitivity required to facilitate such zones and, in particular, the framework stresses the importance of being sensitive to cultural, social, and linguistic identity and context. There is also a realization in Pratt’s work that there is a need for social and intellectual spaces for sub-communities. She says that such spaces can be used to “construct shared understandings, knowledges, claims on the world that they can then bring into the contact zone” (1991:40). This finds echoes in Ratto’s argument that we need to overcome differences without removing them fully (2012:582).

Towards a Code of Conduct for the Digital Humanities

Overcoming differences without removing them takes work and sensitivity. All of the frameworks for intersectional work described in the previous section draw on the notion of a community with shared values and sentiments. This does not imply that all issues are resolved, but that there are guidelines for how to work together. One way of formalizing such guidelines is through having a code of conduct for the digital humanities. Such codes can be powerful in that they ideally capture and define modes of engagement, common sentiment, and rules that are accepted by a community and are necessary for being a member of that community. It is not a matter of single statements so much as a number of statements that together constitute the code of conduct. At times, individual statements can seem to be simple, taken for granted, or just naïve, but the job of a code of conduct is exactly to make transparent what is expected. Sometimes the things about ourselves that we take for granted may not actually carry over into action or personal and institutional awareness, and a code of conduct can remind us of shared values even when we overstep. I suggest that the following list can be the beginning of a code of conduct for ADHO and for the digital humanities more generally:

1. Attempt to enact an open, inviting, and largely non-territorial field, while also demonstrating integrity, sharpness, and a willingness to push on epistemological boundaries.

2. Acknowledge the different levels at which scholarly, technological, and institutional work has to be carried out, and encourage the digital humanities to operate between these levels.
3. Engage with technology practically, creatively, and critically.
4. Do not assume that there is only one model of the digital humanities, or that the
digital humanities is only one tradition.
5. Do not attack arguments or positions without having attempted to understand
the position or argument under attack.
6. Be reflective about the discursive and intellectual framing provided by your own
epistemic tradition (or traditions).
7. Recognize the embeddedness of epistemic traditions, and that they relate to
practice, expressive modalities, and materiality, as well as ideas, theories, and
methods.
8. Humbleness and constructiveness are useful qualities in negotiating different
epistemic traditions and positions.
9. Be aware that there are certain issues that are epistemologically loaded, and try
to acquire a good sense of their context and history before bringing them up in
interdisciplinary exchange.
10. Be prepared to be pushed out of your comfort zone, but also to work within your
comfort zone in a diverse and constructive setting.
11. Harassment, intimidation, or discrimination based on race, religion, ethnicity,
language, gender identity or expression, sexual orientation, physical or cognitive
ability, age, appearance, or any group status is unacceptable.

Actionable Suggestions for the Digital Humanities

While the code of conduct provides an important foundation, it does not address
Terras’s challenge sufficiently. In the following, I aim to provide conceptually grounded
and actionable suggestions as a response. While these are a response to the challenge,
they are also a more general attempt at outlining a path forward for the digital human-
ities in an intermediate time perspective.

1. Embrace a notion of the digital humanities as a contact zone with integrity that
can host a variety of epistemic traditions, modes of engagement with the digital,
infrastructures, and institutional models. This is essentially a non-territorial
model by which the digital humanities has integrity as well as a close, multilevel
collaboration with humanities disciplines and other actors. This requires curato-
rial qualities, deep intellectual–technological interchange, an openness to other
traditions, and a willingness to go beyond the big-tent idea of the digital human-
ities. Curatorship is needed to maximize the benefits of the coming together of
many traditions and epistemic positions. Intellectual work involves the profound
interweaving of the critical and the technological. There has to be an openness to
other perspectives and no expectations that specific traditions should abandon
their epistemic core, but there will be adaptation. The big tent has to be replaced
by something that is not steeped predominantly in one tradition.
2. Tone down the aggressive and territorial rhetoric and action (in all camps). This
does not mean that there should not be sharp and engaging dialog, but hopefully
the interaction can be characterized by first trying to understand the other
position before engaging in critique, and by seeing the digital humanities as a place for different epistemic positions. This also implies understanding your own position and the particular situatedness of concepts and ideas (such as “collaboration,” “nice,” “making,” “genealogy,” and “criticality”). Critically, this is not about always being “nice,” although niceness is important, but about facilitating meaningful and constructive dialog. Concretely, a code of conduct can support such a development (see the previous section). The goal is not epistemological merging, but coming together from different traditions and engaging richly across these. In any case, it probably makes sense not to start with the most unresolvable issues.

3. Instead of building a new platform for the digital humanities, it would be advantageous to draw on the rich infrastructure, history, and political competence of the largest digital humanities organization. ADHO has a strong institutional position and is responsible for some of the main infrastructures of the field (the annual conference series, journals, etc.). As part of the renewal, half the positions on the board could come from other traditions and institutions. This would be a major change, of course, and it will have to be carried out sensibly and with respect. The field would have to retain integrity, which means that the new organization would have to draw on people and partners that are sympathetic to the idea of a renewed digital humanities.

4. Use the annual Digital Humanities Conference as a platform and testing ground for renewal, and consider making an upcoming conference into a primary testing ground. The experimental stance of digital humanities can be enacted through the format of the conference too, exemplifying the ways in which the digital humanities can manifest ideas, infrastructures, and expressions. Ideally, the conference following this one would be a good time to announce the implementation of a new charter for ADHO.

5. Work with other organizations and fields in order to manifest and sustain digital humanities as a key platform for engaging with the humanities and the digital: memory institutions, all humanities disciplines, other platforms for the humanities (such as humanities centers and the 4humanities initiative), some interpretative social science institutions, technology and science fields, intersectional fields such as gender studies, and organizations such as HASTAC. Double or triple affiliation can be a very useful institutional strategy. People are not restricted to one identity in any context. For instance, HASTAC scholars (graduate students supported by HASTAC and their local institution) so inclined could have an extra affiliation with ADHO. A professor at a humanities department can have a secondary affiliation with a digital humanities institution. Actual institutional configurations and possibilities vary considerably, but the basic idea of multiple affiliations and being a contact zone can be implemented in very different ways. Also, there can be a rich collaboration with individuals who are based elsewhere, but do not have a formal affiliation with a digital humanities initiative.

6. See the digital humanities as a platform for the humanities. This does not mean that every digital humanist or digital humanities institution has to engage with the long-term future of the humanities, but rather that they should acknowledge and embrace the fact that the digital humanities can have this function. It could be an opportunity and responsibility that comes out of seeing the digital humanities as a liminal zone. This function cannot be forced on any institution, but
through empowering others and being open to dialog, the digital humanities
can secure this place. Obviously, there can also be other institutions that function
as platforms for the humanities.

7. Engage with infrastructure critically and creatively. There is a need for a human-
istic framing of academic infrastructure, and despite several attempts, there is a
great deal of work to be done for the infrastructural vision to match the notion
of an open, inclusive, and intellectually driven digital humanities. Infrastructure
is also an example of where the digital humanities can help the humanities as a
whole, and where there can be significant mutual benefits. Humanists need
better ways of understanding and packaging infrastructure, but also need to
mobilize the critical potential of their own work to situate and problematize
their own infrastructure. In this way, academic infrastructure can become an
example of where critical perspectives and concrete building come together. This
would seem a worthy challenge for the digital humanities.

8. Engage with space. We are spatially situated beings, and while academic space
is often a precious commodity, it can help channel and situate the digital human-
ities. Well-designed spaces with humanistic infrastructure and digital presence
can help bring epistemic traditions together and provide a means of engaging
critically and technologically. Such spaces do not need to be large or look a
certain way. What is important is that they map onto the ideational foundation
of the digital humanities initiative in question. Furthermore, while we may not
want to talk about digital space, some operations would simply not lend them-
Selves to be physically spatialized. Networked communities, publication plat-
forms, and distributed research environments can also play a significant role.

9. Be sensitive to the importance of institutional specificity. Different institutions
are configured, enabled, and constrained differently, and there are significant
national differences. For instance, tenure-track systems are not universal and not
all institutions of higher education are traditional comprehensive universities,
and there is a marked difference between creating a digital humanities platform
at a technical university college and creating one at a liberal arts college or a
comprehensive university. And the very sense that there should be a center or a
platform is built on certain kinds of institutions and available resources. In any
case, the field will probably have to think more in terms of national and interna-
tional infrastructure in the long run, and resources will have to be centralized to
some extent, as well as distributed, and there will have to be ways of sharing
costs and resources. At the same time, there must be room for institutional and
intellectual dissimilarity. Paying attention to the specificity of the local condition
is likely to give better return on investment than adopting a generic model of
the digital humanities by default. It is therefore important that there is a range
of models and examples, and that ADHO does not impose an imprint model on
aspiring institutions, whether in the Anglo-American world or outside.

10. Acknowledge the multiple genealogies of the digital humanities. There are many
trajectories that have led to present-day digital humanities, and some of these are
not part of the official foundational narrative. With the current situation, there
are also other fields and disciplines that have a vested interest in the field. Even
with an essentially non-territorial model, there will always be some institutional
tension, but through not excluding anyone or any tradition, this tension can be productive. The scalability of such a model depends on many actors and interests, and academia is not a zero-sum game. Furthermore, with a development towards increasing specialization in the field, an open model can better allow and empower subgroups within the context of the digital humanities as a whole.

Most of these points relate to the necessity of having a real awareness of differences in perspectives and epistemic traditions. We tend to take certain aspects of our own traditions for granted, and taking a step back is not necessarily easy. Language and discourse play a vital role here in assigning frames to our epistemic traditions. Let me illustrate this with two examples.

The digital humanities is often described as inherently collaborative, not just the field, but also its technologies, projects, and people. Collaboration is an active and visible parameter in the narrative and framing of digital humanities. Not working collaboratively is often construed as an exception. Lisa Spiro states that the digital humanities community sees collaboration as an ethos necessary for its mission and work, and adds parenthetically, “even as it recognizes that some work is better done in solitude” (2012:25). Similarly, Bethany Nowviskie classifies situations “in which digital humanities practitioners work without explicit assistance or collaborative action” as “edge cases” (2011:170). Also, the kind of collaboration seen as central to the digital humanities is epistemologically flavored. It is not any collaboration, but one compatible with the project-based and technology-rich work processes associated with the tradition of digital humanities. It is unlikely that a standard seminar situation is as highly collaborative in the same fashion. Furthermore, the focus on collaboration in the digital humanities also means that much individual work within the field is made invisible. This is reinforced by an often oppositional scheme between the digital humanities and the traditional humanities, by which the digital humanities is seen as collaborative, while the humanities is seen as being anchored in a highly individualistic model.

Another example is the inclusion or non-inclusion of gender, power, postcolonial, and environmental perspectives in digital humanities work. Adeline Koh and Roopika Risam (2013) argue that such categories tend to be blanketed out in computationally driven work in the digital humanities. According to their analysis, these categories have been largely invisible. This claim can be problematized, but it is certainly true that the field has not been heavily inflected along these axes. This situation is changing, however, which is partly a result of intersectional work and a broader scope for the digital humanities. An interesting example is the connection between environmental humanities and digital humanities, where there are many potential synergies. For instance, the digital humanities interest in “making” and intellectual middleware aligns well with the exploration of offering alternative narratives of “nature” in the environmental humanities (cf. Galison, 2014). And through the influx of scholars from areas such as gender studies, and the consequential epistemic negotiation, it is likely that there will be a stronger engagement for such perspectives within the community of digital humanities. At the same time, such traditions – when in contact with the digital humanities – will likely have to negotiate their relation to matters such as technological infrastructure, language, materiality, and making.
Conclusion

It seems likely that the next five years will be critical for the shaping of the digital humanities. There are multiple possible pathways ahead, and while there is no definite way of sorting the digital humanities out, I have suggested in this chapter that we need to embrace and develop the liminal position of the field rather than move away from being in between. The big tent will never be big enough, and we need to give up some of the old binaries and move forward as an epistemologically open, intellectually curious, and technologically engaged enterprise. We need to be aware of our own epistemic commitments and be generous enough to try to understand others’ before critiquing them on epistemological grounds. This does not mean giving up one’s own disciplinary anchorage or sense of sharpness, but rather being willing to learn and negotiate. Having a code of conduct can help us identify and foster shared community values.

We need to take time to constitute the field before we attempt to use one particular model of digital humanities as a template to develop the digital humanities internationally. However, it may well be that what we find out is that it will never be appropriate to simply advocate one model. As a humanities-wide enterprise, the digital humanities can represent the humanities in certain contexts and be an experimental platform for enacting and imagining the future of the humanities. The digital humanities can never be strong enough without working with the rest of the humanities. This does not mean, though, that the field should not have integrity or that digital humanities always has to reach out to the rest of the humanities.

A point about humility too. As a young graduate student in English linguistics, I had learned that the archaeologist Sir Colin Renfrew was coming to my university to receive a scholarly prize. One of my primary interests at the time was the history of languages, and I was quite interested in Professor Renfrew’s work and him approaching linguistics from the point of view of archaeology. I contacted him and asked him whether he would be willing to give me an interview during his visit. I was happy he accepted, and I had a wonderful conversation with him. He must have been about 60 years old at the time and was generous with his time. He told me how his interest in historical linguistics and archaeology had made him realize that he needed to have a better grasp of molecular biology. He started to go to molecular biology conferences, and for a long time he would sit at the very back, listening and learning. He said that he had to devote time to getting a sense of the field and current research. After a year or two, he told me, he was actually invited to sit up front and be an active part of the dialog. This taught me about the importance of intellectual humility. Renfrew showed respect through taking the time to learn the “language” and more about the field, although he could probably have imposed himself in a much more direct way. There is a lot to be said for such generosity and humility in the context of the digital humanities. And even if we cannot sort the digital humanities out, let’s at least try!

REFERENCES AND FURTHER READING


Gendering Digital Literary History: What Counts for Digital Humanities

Laura C. Mandell

In many cutting-edge critical discourses – e.g., globalization theory – the speed with which women can drop off the map takes my breath away. (Susan Friedman, in Cvetkovich et al., 2010:242)

Ever since Anne Snitow’s “A Gender Diary” was published in 1990, we have noticed that feminist activists confront numerous double-binds and paradoxes. In the forum discussing whether the term “woman” can be used “as a sponsoring category” from which the epigraph comes, Susan Friedman uncovers such a double-bind with which I’ll grapple here. In order to be published in print, the forum concluded, a feminist critique cannot pose as a recovery project alone, but instead must address multiple discourses. That is, as to “what counts” (per the title of this chapter), one needs to count higher, adding to the numbers of minorities addressed and theoretical approaches deployed. However, the minute one adds other critical discourses to feminism, women tend to disappear from the discussion, rendering recovery projects even more necessary. To repeat Freidman’s insight once again, women stop counting as significant so easily that “it takes [your] breath away” (Cvetkovich et al., 2010:242).

Two principles inform my analysis of the problem of the disappearance of women writers from systems of valuation via paradoxical necessity. First, an approach that is beneficially required of any literary criticism is what N. Katherine Hayles named “media-specific analysis, … a kind of criticism that pays attention to the material apparatus producing the literary work as a physical artifact”:

Lulled into somnolence by five hundred years of print, literary studies have been slow to wake up to the importance of MSA. Literary criticism and theory are shot through with
unrecognized assumptions specific to print. Only now, as the new medium of electronic
textuality vibrantly asserts its presence, are these assumptions clearly coming into view.
(Hayles, 2002:29–30)

My second principle is that, while new media make it possible for these “unrecognized
assumptions” stemming from print culture to come into view, gender analysis makes
them salient. That is, print culture has absorbed and materialized earlier forms of
misogyny, putting it to its own uses, so that combining feminist with media-specific
analysis can provide a powerful tool for analyzing our own “somnolence” in order to
wakefully invent digital forms.

After showing that women writers are being recovered and forgotten in cycles,
both in print and potentially in digital media, I will investigate how print media
obfuscated itself as a medium, pretending to transfer intentions from one mind to
another, once and for all, by deploying the figure of woman as a scapegoat for the
material, ephemeral, and historically imbricated. Next, I’ll examine two digital
projects that are aimed at recovering women writers which do more than give us
new content: they perform structural work, attempting to combat that paradoxical
feminist necessity to produce a high count of women writers while simultaneously
valuing them individually. Finally, I’ll argue for the thick contextualization of
women writers even amidst the push to analyze big data, but will also add my hope
that feminists make major interventions in data mining and topic modeling. Taken
as a whole, this chapter demonstrates that feminist digital literary history needs
to perform media as well as gender analysis, as called for by Susan Brown and

Cycles of Forgetting

In 1989, Roger Lonsdale published his Oxford collection, Eighteenth-Century Women’s
Poetry, introducing it by not only remarking how little was known among English
professors about the topic, but also pointing to an earlier moment, the end of the
eighteenth century, when there were so many publishing women poets that no one
thought they would ever disappear from our literary purview:

Reviewing [one of over thirty collections] of verse [written by women in the 1790s],
Ralph Griffiths ... felt able to [pronounce,] “it is no longer a question, whether woman
is or is not inferior in man in natural ability, or less capable of excelling in mental accom-

“In retrospect,” Lonsdale adds, “Griffith’s complacency ... must seem ludicrously
unjustified. ... Anyone admitting to an interest in eighteenth-century women poets
will soon learn to live with the politely sceptical question, ‘Were there any?’” (Lonsdale,
1989:xxi). Despite the fact that there were hundreds of them – the Cardiff Corvey
Women Writers on the Web database lists 1065 works by women published between
1790 and 18351 – at some point in the evolution of literary history, these women
writers ceased to count.
In 1998, Cathy Davidson made a claim very similar to the one made by Ralph Giffiths in 1798. Describing publications around 1985, she was confident enough to assert that the publishing of women writers had triumphed; they would not be forgotten again:

[Nina Baym and Jane Tomkins] worked to make visible a woman's tradition in American literature ... Series at Beacon Press, the Feminist Press, Oxford University Press (notably The Schomburg Library of Nineteenth-Century Black Women Writers), and Rutgers University Press — to name just a few — changed the canon of American literature. (Davidson, 1998:447–8)

Yet despite this celebration of a changed canon, performing data-mining techniques to count the writers in anthologies that have been published over the last decades reveals that women writers have not yet made significant inroads (Levy and Perry, 2015). And feminists were even after 1985 still engaged in recovering forgotten women writers, especially early modern women writers who had “published” in manuscript form, not print (Ezell, 1993). Writing in the 1990s, Kathryn Sutherland expressed hope for bringing women’s work to light via digital media, based on her perception that print had failed to do so:

[If computers do not substitute for books, they may substitute for the absence of books; and this is what concerns me as a scholar working to rehabilitate women’s writings. (Sutherland, 1993:53)]

But many of the projects undertaken in the 1990s fell by the wayside, like Sutherland’s own Project Electra, assimilated by the Oxford Text Archive with, as far as I can tell, its origins as a feminist project unmarked.

Many digital recovery projects of women’s writing have, like Project Electra, never realized their ambitions: the Perdita Project has been commercialized — it is now sold by Adam Matthew Digital — and Chawton House Novels Online, including so many women writers, has been taken down since Pickering & Chatto began publishing it as a printed series. Some digital anthologies do exist and persist: the Women Writers Online project (http://www.wwp.northeastern.edu/wwo), discussed in more detail below; Mary Mark Ockerbloom’s Celebration of Women Writers (http://digital.library.upenn.edu/women/writers.html), the Victorian Women Writers Project (http://webapp1.dlib.indiana.edu/wwwp/welcome.do), recently revitalized thanks to the efforts of Michelle Dalmau; my own Poetess Archive (http://www.poetessarchive.org), its revitalization under way. But several have not been updated since sometime between 2000 and 2005: the Emory Women Writers Project (http://womenwriters.library.emory.edu), British Romantic Women Writers at Davis (http://digital.lib.ucdavis.edu/projects/bwtp). Voices from the Gaps: Women Writers and Artists of Color (http://voices.cla.umn.edu) was last updated in 2009 — these are not living projects. We have sites giving us diaries and letters by women writers, and many individual women writers exist at http://www.luminarium.org, an anthology; we have a good Emily Dickinson site, despite the fact that her works themselves are put up on separate sites by Amherst and Harvard (http://www.emilydickinson.org); Woolf Online houses only one novel (http://www.woolfonline.com); an Elizabeth Barrett Browning site (http://ebbarchive.org/index.php) is as yet rather small in scope; and a site about the relatively unknown Baroness Elsa von
Freytag-Loringhoven (http://digital.lib.umd.edu/transition?pid=umd:50580) gives us many versions of her poems, but her oeuvre is quite small. With the exception of the Willa Cather Archive (http://cather.unl.edu) and a very promising Jane Austen's Fiction Manuscripts site (http://www.janeausten.ac.uk/index.html), currently under way, we have nothing as yet on the scale of the Whitman, Blake, or Rossetti archives, or the sites for Shakespeare, Thomas Gray, Herman Melville, to name a few more — no sites, that is, which focus on bringing us a woman's entire oeuvre, through many editions and revisions, along with all her letters, diaries, and other writings.

Many do-it-yourself (DIY) 1990s-looking sites have disappeared, as evinced by all the dead links bedeviling a 2001 article by Georgianna Ziegler called “Women writers online: an annotated bibliography of web resources” (http://extra.shu.ac.uk/emls/06-3/ziegbib.htm) and the minority pages at Alan Liu’s Voice of the Shuttle (http://vos.ucsb.edu/browse.asp?id=2746). Some persist without having been completed in any way, currently out of date: for Julian of Norwich, Margery Kempe, Mary Leapor, Ann Yearsley, Anna Barbauld, Mary Hays, Jean Toomer, and Zora Neale Hurston. Amy Earhart talks about early hopes for opening the canon via the web and the gradual disappearance of those DIY projects as well as the sheer dwarfing of them in relation to the big well-funded projects that simply reiterated the masculinist canon:

While many early digitizers of texts believed in the web as a space in which the canon might be broken …, [w]ith limited exceptions, a majority of early projects reinforced canonical bias. (Earhart, 2012:312–13)

Thus, while scholars from 1798 to 1998 have declared that the absence of women writers is a condition that we can or have already overcome, this absence threatens to persist, in both print anthologies and the Web taken as a whole, as if it were one great anthology.

And recovery projects are not in great demand. In the forum quoted in the epigraph to this chapter, “Women as the sponsoring category,” Ann Cvetkovich, Susan Fraiman, Susan Stanford Friedman, and Miranda M. Yaggi seem to agree that, as Cvetkovich puts it, “projects that focus exclusively on women writers are limited if they presume that a history of women’s writing is sufficient justification for the project” (Cvetkovich et al., 2010:248). For, Yaggi adds:

while we could once justify grouping women writers together under the rubric “women’s writing” by a sense of their shared oppression, such a justification no longer works. We need to seek other, more broadly based frameworks … (Cvetkovich et al., 2010:236)

The category “woman” can’t underwrite scholarship anymore. Dealing with women’s oppression is not enough. Though working to bring the history of women’s writing to the fore is important, it is only really justified if it is digital: Yaggi adds, “Even the word ‘recovery’ can elicit knee-jerk distaste or disinterest if not immediately qualified as ‘digital’ and disassociated from earlier [print] modes of recovery” (Cvetkovich et al., 2010:248). Such “disassociation” involves, again, broadening one’s interests to other “fields of inquiry such as the history of print culture, science and technology, or transatlantic studies” (Cvetkovich et al., 2010:248). However, if there are, as I have
suggested, cycles of forgetting women writers, we disassociate from recovery at our peril. Moreover, two different speakers at this forum in two different contexts insist that it is only by expanding to include other fields that feminist work becomes "publishable" (Cvetkovich et al., 2010:247,249). Why do they privilege producing a published book, so much so that they are encouraging feminists to forgo participating in the unpopular task of recovering women writers and to publish a printed book instead?

A printed book is a thing, enabling it to be a monument, but, when formed into a disciplinary monument, it is a decontextualized and decontextualizing thing. Print offers a soundless, supposedly bodiless, and allegedly eternal venue for articulation, and, as Pierre Bourdieu puts it, "eternal life is one of the most sought-after social privileges" of any class, intellectual or otherwise (1979:72). Transcendental ambitions, borne and bred by the book, I would argue, lead these thinkers away from recovery projects onto attempts at monumentalizing. But even though the participants in the forum want eternal life for feminism, the attempt to achieve eternal life via the printed book, is, I will now demonstrate, intrinsically inimical to women writers. (A century from now, will there be anthologies of twenty-first-century criticism that include as many women writers as men, some valued as major?) It is precisely the desire for transcendence as it is fed by the printed book, I will now show, that denigrates women writers, demotes them to the merely ephemeral and minor.

Forgotten by Print

In the process of mediation, when one is writing and publishing a book, there is never a moment without concern for one's own particular immortality in, via, and through the act of mediation. In a chapter of my 1999 book Misogynous Economies, I argued that the desire for immortality through print has motivated the systematic erasure of women's literary history from anthologies and textbooks (Mandell, 1999:107–28). So, for example, during the time that disciplinary anthologies were coming into existence, creating with their tables of contents the monuments of literature strewn around the field of English Studies, Robert Southey published two different anthologies. One, the three-volume collection called Specimens of the Later English Poets, with preliminary notices, lists 213 authors, many women among them, in an index that doubles as his table of contents, listing the volume in which they appear and the date of their death. In a passage playing upon the meaning of the greek word anthologia, "a collection of flowers," Southey introduces his Specimens by explaining that he is simply collecting authors of various periods so that people can see what ordinary, or even bad, writing was like during older periods of time:

Many worthless versifiers are admitted among the English Poets, by ... charity towards the dead. ... There were other reasons for including here the reprobate, as well as the elect. My business was to collect specimens as for a hortus siccus; not to cull flowers as for an anthology. ... The taste of the publick [in previous generations] may better be estimated from indifferent Poets than from good ones; because the former write for their contemporaries, the latter for posterity. (Southey, 1807:iv–v)
This is not an anthology of living but a collection of dead flowers, specimens of what was once popular but is definitively not timeless literature. For that, one must go to Southey’s 1831 collection of poets, Select Works of the British Poets, from Chaucer to Jonson, with Biographical Sketches, containing 21 male poets, whose genuine, enduring fame “has no present tense” because it extends now and forever. Ripped out of the womb of historical context, which is itself dead and withered, the great writers become part of a tradition, transcendent, immortal. The anthologizers Southey and also William Hazlitt constituted the discipline of English literature as transcendent traditions, and they accomplished this task by turning women writers into mere historical context, “the reprobate” in relation to the canon, never “the elect” (Southey, 1807:iv).

In a related argument, Julia Flanders points out another way that print culture embodies women writers in contrast to transcendentalizing men. Early modern women writers have not been edited in the way that men have, many only ever having been printed once, during their lifetimes. There simply are not printed editions that can be compared in an apparatus. In contrast, works by men have been published and republished. Consequently, the editing which canonical male authors typically undergo—editors listing “accidents” of local, contemporaneous publishing, and variants among various witnesses—transforms the material document into a timeless text containing the author’s immortal intention, having sloughed off all contingent meanings. The historical context of each individual edition is cleared away, relegated to notes that elucidate meaning (Flanders, 1997:133–4). Again, women writers only appear in the materiality of the single print run. Because of the way that, in masculinist editing theory, “the text of the author” is conceived as “universalized and disembodied textuality,” any “physical document” in which it was originally embodied is conceived as “corruption and debasement” and placed firmly “in the realm of the monstrous and the deviant”; it is seen as “an unchaste female body” that can be “chastise[d]” in order to produce a text reflecting pure, disembodied authorial intent (Flanders, 1997:129).

Women’s writing conveniently falls into the category of the monstrous and unchaste, the reprobate.

What Southey’s anthologizing activity demonstrates is that saving male writers in disciplinary anthologies and authoritative editions is not enough by itself to establish their work as eternal: there must be concomitantly a production of collections containing works of merely historical interest and facsimile editions. Sexism is served by the media of mass-printed anthologies and anthological textbooks as well as “authoritative” editions—not the medium of print per se, but the medium in the forms that we have constructed it in order to ground the discipline of literary history. This sexism makes women writers, whose writings are coded as mere historical ephemera and purely physical, disappear habitually, regularly, and cyclically (Ezell, 1990; Woods, 1994; Mandell, 1999). In reviewing the Brown Women Writers Project, Susanne Woods asks, “how can we recover early women’s writing in English once and for all?” (Woods, 1994:19).

Is it in fact the case that women’s writings must come, in the end, not to count after publication, only ever recovered and re-recovered, whether digitally or in print? Do we have to keep re-finding it? This question is crucial to digital literary historians because answering it will suggest, I hope, how to make feminist digital recovery projects that actually achieve what they set out to do: recover women writers for literary history, if
not once and for all, then more permanently than has so far been accomplished. Can the creators of historical digital archives make women count, and, if so, how?

Digital De-contextualization

A print book’s ambition to exist as an eternal monument problematizes its capacity to recover women writers “once and for all,” since women must be defined as ephemerata in order to provide a necessary contrast and contain the threatened return of materiality. Does the same structure arise in digital media? Though not rock-solid in the matter of monuments, the “flickering signifiers” of digital media nonetheless live in an allegedly disembodied sphere (Hayles, 1999). Encoding digital editions in eXtensible Markup Language (XML), and particularly in the set of tags offered by the Text Encoding Initiative Consortium (http://www.tei-c.org), does entail a level of abstraction away from the physical and from presentation of text on the screen: this too, as Alan Liu has successfully argued, entails the ambition to achieve transcendence (2004), the very same ambition, I would argue, that prompted coding women’s writing as of merely historical interest in print.

Additionally, the notion of gathering a “grand” archive of materials—on a digital scale—participates in a kind of “monumental logic,” as Wernimont suggests (2013:5–6). Like Ellen Rooney, Wernimont condemns merely additive projects whereby the goal is to produce the highest number of women writers published online. Clearly she is right: discriminatory sexual difference informs ways of counting, given that male monuments are built by adding numbers of text to a single man’s oeuvre, whereas the monumentality of feminist archives consists in increasing the number of authors, adding to women writers continuously and making it difficult for users to know how much attention to give to any individual writer. After all, too much information is as bad as too little if you cannot tell what counts as meaningful, or how to account for significance in a way that isn’t about numbers. A recent critic has spoken of digital media (databases, Callahan offers) as providing “gardens of history” (Hatfield, 2006, quoted in Callahan, 2010:4), indicating that we may not have come very far from the anthropological model: we can say about both databases and anthologies that we have a few great men in a database/anthology, each with many works, and many women in a database/print collection, each one with few works. Wernimont insists that digital projects of women writers must “facilitate access by helping users sort through an abundance of data and push against monumentalism in some way” (2013:6).

What way? How can we push against monumentalism? And if we push against it partly by recovering numbers of women writers, what place is left for a field of literature in which each woman writer can count? Flanders notices a paradox connected to the placing of women’s writing: if we insist on its materiality and presence by putting forward a high number of women authors, thwarting transcendentalist ambitions by refusing to edit these writers in an authoritative, disembodied way, then we feed into the norm according to which women’s writing is material and men’s is not, but if we edit them according to the standards of authoritative editions, we perpetuate the set of standards according to which most women writers are denigrated as merely ephemeral, counting not as literature but as historically interesting (Flanders, 1997:137,140–1).
Re-contextualizing

The problem of valuing women writers is as follows: for women writers to be counted, one must create for them the authoritative editions of writing that denigrate the material body, disregarding the specificity of gender, or worse, abjecting it, scapegoating it as if it were to blame for mortality, for materiality as such. Susan Belasco helpfully designates the apparatus of authoritative editions an “infrastructure,” demonstrating that, without such an infrastructure, women writers are not discussed by literary critics anywhere near as often as canonical male writers, despite the wealth of literary criticism that already exists for their works (Belasco, 2009:332). Changing our focus from “authoritative edition,” a print hangover, to “infrastructure” more broadly allows us to think of alternatives to an apparatus that necessitates a disembodied text or “the work,” as editorial theory designates it. It also enables us to think digitally. Two feminist digital projects reconceive the infrastructure of women’s writing: (1) Orlando: Women’s Writing in the British Isles from the Beginning to the Present (http://orlando.cambridge.org), and (2) the Women Writers Project, formerly at Brown and currently at Northeastern University (http://www.northeastern.edu/nulab/women-writers-project-2).

The Orlando project effectively dismantles the canon and makes women count by virtue of its infrastructure, both socioeconomic and digital. Because it was generously funded, the Orlando project was able to hire many able researchers to deeply contextualize 1139 women writers. They are deeply contextualized via two distinct types of documents. The first type consists of sometimes extensive biocritical articles on individual writers (primarily British women writers but also a selection of male and international women writers), which are deeply tagged for structure (e.g., paragraphs, document divisions), content (e.g., names, organizations), and interpretive material (e.g., political affiliations, sexual identity, occupation; authorship issues, intertextuality, landmark texts). The second type consists of briefer records of related material, of the historical landmarks, and minutiae that contextualize our view of literary history. (Grundy et al., 2000:269)

In terms of chronology, women authors writing at the same time as Maria Abdy, for instance, would share all the contextual events that are listed when one generates a chronology for her (Figure 35.1).

Thus Abdy’s world is given a thick description, but that description applies to many others of her era as well as to all the women writers comprising her context. The intertextuality tag is arguably the most interesting tag in Orlando’s semantic markup: here women’s writing is connected to the writings of others, male and female, who are quoted, addressed, or to whom each writer alludes (Brown et al., 2004). Orlando is not a collection of writings by women but rather an apparatus for women writers. The infrastructure of Orlando, I would suggest, is specifically designed to make a high number of women writers count.

The textbase of the Women Writers Project (WWP), called Women Writers Online (WWO), presents women’s writing: currently 150 texts, and it is averaging 15 new texts per year. In the WWO the materiality of the texts is preserved – the long s, for instance, as well as original spellings. But it does not merely offer facsimile editions.
The texts are typed and so are analyzable via the visualization tools now available at WWO. They are also deeply encoded using a variant of the TEI specific to the WWO. This means that a great deal of care has been taken to present each text; in fact, the editors are paid for their work, and Oxford University Press occasionally publishes a volume to meet the demand of classes and researchers. In addition to the care with which each individual writer is treated, the WWP has been awarded several important grants. Grants typically de-privilege the work of archiving women writers because the National Endowment for the Humanities (NEH) Office of Digital Humanities supports tool building but not archive building, innovation but not sustenance (Earhart, 2012:314). As Susan Brown and colleagues point out, "serving" or "delivering" women's writing (or indeed any kind of writing) in digital media is coded a feminine task, such service bordering on the servile (Brown et al., 2008:37). It is by virtue of code development and tool building that the WWP has been funded by grants (Wernimont, 2013:15,18).

We now have these two exemplary projects, Orlando and Women Writers Online. So now what? “Is the mere presence,” Wernimont asks, “— the fact of being there, of having women’s work exist in digital archives — enough to address the continued marginalization of women’s writing?” (2013:4). It is not enough: as every good digital humanist knows, “build it and they will come” is a dangerous philosophy. But Orlando in particular, with its interpretive tagset, does more than simply proffer digital biographies of women: it participates in “the politics of knowledge representation” (Brown et al., 2006:323); it provides what Wernimont (2013:8) calls “a feminist response to
the elisions at the heart of sorting and editing”. In fact, Brown, Clements, and Grundy say, “we were trying to devise a tagset that would make visible what previous literary historical methods had made invisible or excluded”:

In contrast to the sorting out of women in older literary histories which excluded them, we were trying to sort women into the version of literary history we were constructing. (Brown et al., 2006:321)

The intertextuality tag mentioned above provides just one example of rewriting women’s literary history such that women are not seen as forming a tradition, given each writer’s intertextual connections with men’s writing as much or more so than with other women (Brown et al., 2004:197). Both Orlando and the Women Writers Project have been able to pay their contributors, and doing so has made it necessary for both archives to charge subscription fees. It is up to us now, as a community of scholars who care about the future shape of literature, to insist that our libraries subscribe, to pay the fees that make possible this new kind of infrastructure, crucial to recuperating literary history. In this respect, consumption is a form of production: we are co-designing the archive constituted by the Internet as consumers who insist upon the presence of these projects.

**Big Data Versus Encoded Data**

I wish to conclude by discussing countlessness, a new type of monumentalism—digital, this time—which threatens once again to devalue women writers. Why? 1139 in Orlando + 150 in WWO = 1289. When marshaled in huge numbers, women writers are not countless enough: in the absolute biggest datasets, the number of women is dwarfed in comparison to every man who ever wrote and becomes a small if not insignificant subset of the data stream. Margaret Ezell has successfully argued that twentieth-century anthologies erased early modern women writers by focusing on print culture. But the digital has similar problems, she suggests. “The electronic ‘archive’ model” of digital publishing—online editions which are successful “because of their size, scope, and ability to be all inclusive”—that publishing model threatens to erase a substantial portion of women’s literary history just as twentieth-century anthologies recovering women writers had done insofar as they privileged print. Early modern women writers, she has shown, published in manuscript, and sometimes wrote domestic volumes not meant for circulation at all. These manuscripts should not on that account be designated either non-literary or uninteresting:

Because of this easy transference of older critical terms and textual conceptualizations into a new editorial media, I would argue that editors of electronic projects ... need to be more aware of the significance of the materiality of texts, of the social conventions of handwritten culture as they may differ from print cultures, and the multiple ways in which these unique, single copy-texts are of interest and value to scholars. (Ezell, 2010:108)
For Ezell, refusing to "edit out the richness and complexity" of these manuscripts' "way of communicating" is a means for "positive feminist interrogation of editorial principles" - again, essential to making women writers count in literary history by paying attention to medium.

However, we confront here another double-bind - this time between the monumentality of countlessness and careful editing. Neither careful editing nor even producing large numbers of women writers will avoid replicating the print invisibility of women as we transfer the archive of women's writing and history to the Internet insofar as digital humanists focus their attention on algorithmically exploring big data. Bethany Nowviskie has noticed in comments on a blog posting by Miriam Posner (2012) about women encoders the small number of women who are involved in topic modeling, data mining, and highly mathematical, computational work in general. If feminists only create archives and do not then take the further step of doing cutting-edge research by learning how to use new tools for exploring them, we risk seeming only to serve in the ways that editorial work itself is feminized and denigrated as service in the field of literary studies. As we code innumerable documents in the archive of women's history, coding them in ways that make them theoretically interesting, let us also perform cutting-edge digital research on these very sites, for then, in order to talk about significant results, the world will have to talk about Felicia Hemans instead of Herman Melville. Rich encoding of a high count of women's texts is crucially important at our moment and can work to shape the literary history that is constituted by the Web. But so is trying out algorithms and innovative design on the resulting archives, no matter how relatively small.

There is a kind of misogyny accompanying the printed book that perpetuates this double-bind which insists that, to overcome sexism, feminists must count higher and lower at the same time. We continuously find ourselves caught in the paradoxical necessity to bring us many to make women significant, and yet focus on one or two lest significance is lost. The very same misogynist economy threatens us in the digital realm as well. Most recovery projects give us large numbers of women writers without caring about and enhancing the significance of each one, a problem confronted by Orlando and Women Writers Online, through thick contextualization and careful editing, respectively. But the digital adds a new threat to render women writers invisible: its valuation of countlessness. Big data threatens to eradicate the history of women writers altogether, given that women originally published in small print runs and via manuscript circulation. The answer is not to do nothing in despair: it is both/and. Just as the paradoxical need to bring us many women and yet focus on them all was a feat that has been accomplished by Orlando through mechanical means for individuation, we can confront the new double-bind as well. No matter how much or how many, data can be infinitely atomized and analyzed: we need to perform cutting-edge research on archives of women writers, even if those archives do not offer the countlessness of big data. Then, a scholar looking back from the year 3000, summarizing important research results, will notice that women's history was exceedingly important to the world of the twenty-first century. "The most important theoretical and technical advances," she will say, "were discovered in exploring women's literary history."
NOTES

1 The CW3 database is freely searchable on the web: https://www.2shu.ac.uk/corvey/CW3/. Some of the works listed in this database are available via the Nebraska Corvey Novels Project: http://english.unl.edu/corvey/html/Projects/CorveyNovels/CorveyNovelsIndex.htm.

2 There are excellent sites for the letters of Lady Mary Wortley Montagu (http://andromeda.rutgers.edu/~jlynch/Texts/montagu-letters.html), Elizabeth Barrett Browning (http://digitalcollections.baylor.edu/cdm/landingpage/collection/ab-letters), and George Eliot (http://www.warwickshire.gov.uk/georgeeliot), as well as diaries for the Irish writers Dorothy Stopford Price (http://dtr.cd.ie/pricediary) and Mary Martindale (http://dtr.cd.ie/martindiali).

3 “Collection of flowers” is the first definition of the term “anthology” in its list of meanings in Samuel Johnson’s Dictionary of 1755.

4 Such a move resembles arguments against seeking authorial intent as an editing practice by Jerome McGann, D. F. MacKenzie, and others (Flanders, 1997:132).

REFERENCES AND FURTHER READING


Whether engaged in history, literary criticism, philosophy, or philology, scholars in the digital humanities have been concerned with reshaping their scholarly activity and their institutional structures for a natively digital world. They have been open to multiple forms of analysis, to sharing sources and materials (data), and to adopting large-scale, distributed models of scholarship. They have proceeded from an important recognition: that we are now in an era of capaciousness, of ubiquitous storage, of networked information, and of unprecedented access. Rather than orienting scholarship around a model of scarce materials, limited access, and expert gatekeeping, the digital humanities at its most vibrant has been about widening the scope of the humanities, opening access to sources, and broadening definitions of scholarly activity.

As an example, in 2011, the University of Nebraska–Lincoln started an experimental project called the History Harvest. Its main objective was to digitize, collect, curate, and interpret family and community history. Every year students, working with expert faculty, select a community to engage with and undertake a “harvest” of family letters, photographs, stories, and objects. In 2012, the History Harvest focused on North Omaha, birthplace of Malcolm X, a jazz hub in the twenties, and a terminal point for much of the Great Migration. The students invited anyone to bring their family records for discussion and digitization. Dozens of North Omaha residents brought their history: church records, military records, jazz records, photographs, and homestead titles. These records were shared, discussed, documented, and digitized.

One individual, Warren Taylor, brought his great-great-grandmother’s pewter folding cup that she carried as a slave in the fields. He also brought her penny, an 1840 “Liberty” penny that she carried with her, a symbol of eventual freedom. Both had been passed down for generations in the family.
The Promise and the Contested Nature

The animating premise of the History Harvest, like many digital humanities research projects, is that our digital heritage is fundamentally skewed toward government and elite sources. The base research being conducted in the History Harvest is, therefore, aimed at archival first-order work of digital capture, encoding, and sharing. Building a publicly accessible collection, the project can provide a foundation for the generation of future scholarship on a range of subjects, places, and periods. But, like the digital humanities writ large, the History Harvest will reach fruition when the larger community takes advantage of the specifically digital nature of the collection in order to create new forms of historical discovery and argument. Like many other digital projects, the first-order effort at digitization, collection, and assembly of materials serves multiple worthy purposes. If successful, the project might open up digital humanities methods to smaller partnering institutions, sustain a robust hub of scholars, and expose fresh archives for inquiry at multiple scales of analysis. Although promising and opportunistic, such projects should lead ultimately toward digitally native interpretive scholarship.

Yet, paradoxically, the 20-year surge in the digital humanities – from 1993 to 2013 – has produced relatively little interpretive or argumentative scholarship. In this first phase of the digital humanities, scholars produced innovative and sophisticated hybrid works of scholarship, blending archives, tools, commentaries, data collections, and visualizations. For the most part in the disciplines, however, few of these works have been reviewed or critiqued. Because the disciplines expect interpretation, argument, and criticism, it could be argued that digital humanists have not produced enough digital interpretive scholarship, and what we have produced has not been absorbed into the scholarly disciplines.

At the core of this matter of concern lies a twofold contest over the nature of scholarship. Between the core disciplines and the digital humanities there is a difference in kind over whether digital works constitute scholarship. Within the digital humanities, there is a difference in degree over what constitutes digital scholarship. In the next phase of the digital humanities, the contested nature of this twofold problem deserves our attention. Scholars might build bridges to the core disciplines in ways that define their works and give shape to digital scholarship. We might ask what forms of scholarly expression and communication are suited to the digital environment and what qualities and properties do digital works possess. What components characterize digital scholarship? What types of data do digital works feature and how are they arranged? What is the nature of their interpretive salience? How do they function?

Rather than explain the self-evident ways that digital scholarship differs from or extends traditional print scholarship, a question I wish to bracket, we might explore the nature of digital scholarship and the variation it takes. In the digital humanities we have experienced two decades of unfettered experimentation in the form of scholarship. Although such experimentation should continue, genres that can be circulated, reviewed, and critiqued would afford colleagues in the disciplines ways to recognize and validate this scholarship. Properly focused but broadly defined, such genres might alter the disciplinary conversation and appear in venues that provide a foundation for future scholarship in the disciplines. In the next phase of the digital humanities, then, scholars have the opportunity to debate, and perhaps clarify, the qualities and characteristics of digital scholarship.
The uncertain and contested nature of digital scholarship can be seen in two reports published in 2013 on the state of the humanities in American higher education: Harvard University’s *Mapping the Future* report and the American Academy of Arts and Sciences’ *The Heart of the Matter*. Each of these reports made extensive recommendations, but neither the Harvard report nor *The Heart of the Matter* explored in detail the impact of the digital humanities on the disciplinary modes of scholarly research and communication. Harvard’s report was telling – it included just a single reference to digital humanities in one footnote in its 53-page document. *The Heart of the Matter* report directly acknowledged “the digital age” but mostly focused on two developments: the rise of open online learning environments and the opportunities that digital projects create for lifelong learning and the preservation of cultural texts and documents.

Citing a handful of digital initiatives, such as the Perseus Digital Library, *The Heart of the Matter* offered just one, highly instrumental and deterministic, statement on the possibilities of the digital age:

> Online resources offer unprecedented opportunities for scholars to frame topics of public interest, to participate in a wider community of public intellectuals, and to reach general audiences. The digital world offers vast new possibilities, not only for delivering instruction, but also for facilitating research and for making the past and future possibilities come alive to students of all ages: historic buildings are reconstructed; family trees can be traced; classic texts and manuscripts are made accessible. (National Commission on the Humanities & Social Sciences, 2013:52)

From the beginning of the 1990s, however, as the networked possibilities of the World Wide Web became more and more robust, Edward Ayers, Jerome McGann, and others repeatedly argued that we have the entire human record (cultural, written, spoken, performed) to digitize, organize, prepare, interconnect, analyze, and *interpret*, and we have the digital capacities (memory, networks, and protocols) to do so in ways we were only beginning to realize (McGann, 1997, 2001; Ayers, 1999). The work of digital scholars, therefore, would not be a simple operation of migration of data from analog to digital, as envisioned in *The Heart of the Matter*. This effort would be a humanistic scholarly endeavor, a process of assembling, encoding, editing, and interpreting. It would demand that we consider anew how we represent knowledge, and it would require newly trained scholars and practitioners who had fluency in the hardware and software technologies of the digital medium. These digital scholars would attempt unexpected, non-traditional forms of scholarship, and their work would not fit within the well-established confines of the monograph or the academic journal. Instead of merely facilitating research, digital technologies would shift the definition of scholarship and digital scholars would invent new modes of interpretive argument and criticism. “A major goal of mature hypertextual history,” Ayers wrote in 1999, “will be to embody complexity as well as to describe it.”

Many scholars in the digital humanities began to see themselves as, and to act as, an open community of practice, including anyone whose energy, expertise, and enthusiasm
aligned with theirs. Rather than conceiving of their project as necessitating a separate discipline or field, digital humanists worked within the disciplines from a loosely defined set of common methods, all aligned with a broad recognition: that humanistic understanding and inquiry was being reconstituted in digital form through digital technologies.

The first 20 years of the digital humanities, then, saw widespread experimentation around three orders of scholarly activity, each building on and in relation to the other, each sometimes pursued within the other:

1. reassembling the human record in digital form;
2. shaping the affordances of humanistic materials in digital form; and
3. creating discipline-based interpretive scholarship in digital form.1

These scholarly activities could be understood as sequential, and yet each could be independently pursued. Scholars built digital archives, layered them with affordances that were premised on interpretive decisions, then wove interpretive scholarship into a digital project. So interwoven were these activities that non-digital scholars could see little that resembled their expectations for peer-reviewed scholarship. Meanwhile, digital humanists found few reasons, given the contours of the medium, to approach their work differently (Waters, 2013).

Nearly 20 years later, we might ask how far we have come on each of these three endeavors. By some measures, we have not come very far, especially toward the third. A recent overview of digital innovation in scholarly publication in the humanities found that there were few hypertextual works that embodied complexity or altered the mode of scholarly communication in ways uniquely suited to the online space. Ayers’ vision, however appealing, was unfulfilled. Innovation in humanities scholarship, Alan Gross and Joseph Harmon concluded, “has been confined, for the most part to sidestream venues; mainstream publication has yet to be seriously affected.” The authors found it “disturbing” that after two decades they had found “so little” Internet-based scholarship in the humanities. And even “more disturbing,” the innovative scholarship they did find was mostly marginal to the careers of the scholars who produced it, funded nearly entirely through outside agencies, and produced as special projects, “not routine activities.” (Gross and Harmon, “The future is already here: the internet revolution in science and scholarship.” Manuscript shared with the author, May 2013).

One reason for the lack of progress toward discipline-based interpretive digital scholarship has been the continuous vitality of the monographic culture in the humanities. At least in the discipline of history, the monographic form has continued to serve as the principal means by which the profession communicates. Built on the rigorous review of evidence, argument, and narrative quality, this system has produced stunning examples of creative and exciting scholarship (Ayers, 2013a). In addition, journals often serve as the gatekeeper and record of scholarship in the humanities and social sciences, reviewing and critiquing monographs in addition to publishing scholarly articles that shape the discipline’s conceptual, methodological, and theoretical frameworks. Yet most journals do not index, review, refer to, incorporate, imprint, or publish anything created solely for the digital medium. Because digital work is rarely
William G. Thomas III

featured or recognized in the leading journals, among other reasons, younger scholars have proven reluctant to develop born-digital scholarship, and departments have had difficulty evaluating this scholarship for promotion and tenure (Ensign, 2010; Townsend, 2010; Howard, 2012).\(^2\)

These barriers to digital scholarship, however, are only the most visible, and they hide the larger epistemological and heuristic questions. More precisely, the problem we face, according to historian Chiel van den Akker, is that “the historical monograph no longer seems an appropriate model for historical understanding in a digital environment.” In fact, the digital environment supports, indeed demands, new narrative forms that are more participatory, dialogic, procedural, reciprocal, and spatial. Akker suggests that the “dialogic process” is “what matters most” and what defines online scholarship. He argues that the process of engagement with the reader distinguishes “online narrativity” from the linear narrative forms found in monographic scholarship (Akker, 2013:107,113).

Similarly, Ann Rigney has pointed out the monograph “can no longer be taken as a given.” She notes that “in the new media ecologies … digitization and the internet offer new technologies for producing and disseminating historical knowledge and, in the process, present both opportunities and challenges.” Digital humanists, she argues, have charted a “new theoretical model for viewing historical narrative in terms of its social production by multiple agents across different platforms” (Rigney, 2010:100).

If the new media ecologies Rigney refers to are indeed naturally “multimodal,” then they demand new practices in scholarly production. For Rigney, the result is clear: scholarship will be characterized by “distributed authorship” and undertaken through networks or hubs of scholarly activity. Continuous flows of information and analytical procedures will unfold as scholarship. There will be no fixed final product (Rigney, 2010:117).

Recently, computer scientist Jaron Lanier has suggested a variety of ways that books, authorship, and readership might change in the digital environment. Worrying that we might lose “the pattern of what a book is in the stream of human life and thought,” Lanier predicts that books of the future will be crowdsourced, will be written with the aid of artificial intelligence software, and will change between readings or between readers. “Books will be merged with apps, video games, virtual worlds, or whatever other digital format becomes prominent,” he argues (Lanier, 2012:354–7).

As a second-order move, digital scholars have emphasized the need for establishing “affordances” embedded in the digital objects being assembled and digitized for humanistic inquiry and research. Affordances might include encoded metadata, enriched markup, specialized interfaces, geospatial and locational encoding, programs for sifting through data, and application programming interfaces (APIs).

The idea of affordances in the digital humanities has been borrowed from several disciplinary theories. The first is ecological psychology, building on the work of James Gibson, a leading theorist in perception, and the term is worth examining. According to Gibson, an affordance is the particular quality of an object or an environment that allows particular types of action. Affordances are also properties of an object or environment that affect the capabilities of an actor, and in this sense they are relative to the type of actor. In Gibson’s well-known example, the properties of a surface, such as the ground beneath our feet, could be either “stand-on-able,” affording support for heavy
animals to walk or run upon, or "sink-into-able," affording no such support except for water bugs. The affordances, therefore, are relative to the actor, not just abstract physical properties. Gibson explained, "different layouts afford different behaviors for different animals, and different mechanical encounters." But Gibson also developed the theory of affordances to support his ideas of perception, arguing that affordances cut "across the dichotomy of subjective–objective" and point "both ways, to the environment and to the observer" (Gibson, 1979:127–8).

Second, human–computer interface (HCI) theorists adopted the term after Donald Norman used it in *The Psychology of Everyday Things*. Norman considered affordances to be user interfaces with properties that were perceptually salient, and in this way his use of the term went beyond Gibson’s original theory. He considered affordances to be perceived by the actor and already known and familiar. They were culturally dependent and shaped by the prior experiences of the user. Norman also suggested that an affordance included the way in which the possibilities of the object are made known to, conveyed, or made “visible” to the user (Norman, 1988).

Scholars in digital humanities have loosely applied the term in both the original Gibson formulation and in the HCI derived sense popularized by Norman. Ignoring the substantial difference between the two has led to some confusion. Affordances might best be considered properties of digital objects that are relative to the reader rather than uniform. They are not linear or fixed. Indeed, much of the energy and work in the digital humanities community has been framed around building digital objects with particular properties, tools that are inflected in ways specific for humanistic inquiry, interpretive acts, and formulating hypotheses. These efforts have been substantial, and include large-scale digital editing projects, interface design for digital reading, query design, and data encoding. The shaping of affordances has been preparatory to, and vital for, further interpretive scholarship (Deegan and McCarty, 2012:166).

Janet Murray in *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (2012) explains how the digital medium exploits certain affordances. Rather than settle for remediation of old media into digital forms, Murray encourages scholars and designers to “think more radically.” She describes four essential affordances of the digital medium: procedural, spatial, encyclopedic, and participatory. According to Murray, “these four properties constitute our design space, the context for all of our design choices.” Every work of digital scholarship can be assessed on the degree to which it maximizes these four affordances. Some works may be more spatial than participatory, or more encyclopedic than procedural. Murray’s formulation of an “affordance grid” offers a particularly helpful way to categorize digital works. By placing a digital project on the scale of its relative engagement in each affordance category, Murray suggests we can “map an existing or proposed artifact against the larger design space in order to identify opportunities for growth and to predict the direction of media innovation.” Affordance mapping entails asking, “What does it do? What can I (the interactor) do? Where am I in relation to the whole? What are the boundaries of this domain?” (Murray, 2012:45,51,91).

But even within digital humanities, we are often vague about what we mean by digital scholarship. Unsurprisingly, given the strong emphasis on digital humanities as solely a methodological approach, some scholars consider the first- and second-order activities listed above to be de facto digital scholarship. Others suggest that any
Monographs or scholarly journal articles derived from digital modes of inquiry and research also naturally qualify as digital scholarship, even if the final publication of these results takes place in traditional formats and scholarly venues. The former position holds that the digital humanities might make use of tools and methods divorced from the concerns, questions, and understandings in a specific discipline. The latter position appreciates the need for disciplinary grounding but does not recognize the fundamental renegotiation in the form of scholarly communication that the digital medium demands. We might therefore distinguish between second-order and third-order work in the digital humanities, and between digitally informed scholarship and digital scholarship.

Edward Ayers recently provided a useful start: digital scholarship is “discipline-based scholarship produced with digital tools and presented in digital form.” He has suggested that we need, in fact, to innovate more aggressively and to invest in its creation. “Digital scholarship is the missing part of the cycle of productivity that we have long believed our investments in information technology would bring to institutions of higher education” (Ayers, 2013a).

Scholarship built on and from digitized sources and presented in digital form would prove appropriate to the digital environment in ways that the monograph no longer satisfies. A robust digital infrastructure for the disciplines used in the service of specific arguments, moreover, would allow the humanities scholar possibly to:

- amplify an argument within nested modules of evidence and historiography;
- simulate the worlds we are trying to reveal in multiple dimensions;
- embody the full range and complexity of the historical problem;
- reveal simultaneity of time, place, and scales; and
- situate multiple perspectives of historical participants, past scholars, and current readers and collaborators.

Although Ayers’ definition of digital scholarship is explicitly “discipline-based,” most historians, to take one subset of the digital humanities, have remained bystanders in the broader effort to create digital scholarship at any of the three levels. In a survey of historical scholarship for the period 2003 to 2013, compiling an index of over 1000 digital history scholarly products (blogs, projects, hypertexts, archives, conference papers, journal articles, and websites), digital activity skewed heavily toward particular institutions and formats. During this period, the American Historical Association annual meeting hosted 281 conference papers or presentations focused on digital scholarship. The number and variety of these papers were impressive, but over 75 were given at just one conference: the 2012 conference when the president of the association made a concerted effort to showcase digital scholarship. With over 200 scholar-led, and over 50 student-led digital history projects, the scope of digital history scholarship has expanded measurably in the last decade. Yet nearly all of these projects were housed in a few centers and institutes where digital history has been nurtured and sustained with institutional and social support (George Mason University, University of Virginia, University of Nebraska, Stanford University) (Thomas and Nash, 2013).

In sum, the digital humanities across several disciplines has deferred substantive engagement with the third-order problem of interpretation, narrativity, and argument
in digital form. Charitably, digital scholars have been concerned with creating frameworks suitable for interpretive arguments; less charitably, digital scholars have been willfully unconcerned with interpretation, argument, and criticism. While some digital humanists have regarded the first- and second-order assembly of digital resources in itself to be an act of interpretation, scholars in the disciplines by and large have resisted this view. In response, digital scholars might not only endeavor to explain the interpretive affordances they undertake but also formulate agreed-upon genres for digital scholarship.

The scholarship of the digital humanities largely resides outside the disciplines, but this precarious situation threatens to render either the disciplines irrelevant to the digital future of cultural communication or the digital humanities irrelevant to the future of the core disciplines in the humanities. If we renew our efforts to imagine genre conventions for something we would call digital scholarship, then we could create forms of scholarly communication so robust and well established that a digital work could become an essential work in the field of history or literary criticism.

In this way the digital humanities holds more promise than yet realized—to broaden its methods into the disciplines, to alter the interpretive models in the disciplines, and to shape more fully the means of disciplinary intervention. Digital humanities scholars have been especially effective at creating hubs of network-enabled scholarly activity and engaging students as collaborators. Greg Crane has recently drawn attention to the need for “a new culture of learning” not only for the field of classics, but also more broadly for the humanities. According to Crane, “we need a laboratory culture where student researchers make tangible contributions and conduct significant research.” Crane argues that “the crush of data challenges us to realize higher ideals and to create a global, decentralized intellectual community where experts serve the common understanding of humanity” (Crane, 2012a, 2012b). Ayers also recently called for students to participate in a cycle of “generative scholarship.” He suggested that students build their work alongside ongoing research projects so that their contributions are assessed, validated, and preserved (Ayers, 2013b).

In the training of graduate students, digital humanities might consider a serious effort to classify digital scholarship to provide a rough typology for those both in the field and outside of it, as a set of definitions for genres suitable to our disciplines. Although digital scholarship is often collaborative and blurs the line between archive, tool, and publication, we might search for common forms of scholarly intervention, train students for these genres, and establish categories of digital scholarship for review in the disciplines. For 20 years, digital scholars have called for experimentation in the forms of scholarship, and the results have been exciting. Concentrating on a few forms, at this important juncture, would support systems of review and evaluation, provide clarity for disciplinary structures of scholarly communication, sustain a common framework for graduate training, and encourage scholars to participate in the creation of digital scholarship.

A few forms of digital scholarship have become relatively well defined and commonly pursued across the digital humanities. They are offered here not as a definitive list but as suitable categories for organizing and presenting digital scholarship.

**Interactive scholarly works (ISWs).** These works are hybrids of archival materials and tool components, and are situated around a historiographically significant or
critical concern. These works often assert a methodological argument as well, demonstrating that the combination of tools and materials serves as a method worthy of applying to the problem. Interactive scholarly works have a limited set of relatively homogeneous data, and they might include a textual component on the scale of a brief academic journal article. They feature an API for users to access the data and programming directly. Relatively tightly defined in subject, ISWs provide users with a high degree of interactivity in a limited framework. Elijah Meeks and Karl Grossner have recently proposed a definition for these works: “a digital archive … a tool for exploring … , and an argument about [a subject]. Furthermore, it makes a methodological argument that its representations – its computational model and visualizations – are a useful means for reasoning about [the subject]” (Meeks and Grossner, 2012).

**Digital projects or thematic research collections (TRCs).** Digital projects, sometimes referred to as thematic research collections, are perhaps the most well-defined genre in digital humanities scholarship. Carole L. Palmer’s 2004 review of these works emphasized several qualities, such as their heterogeneous datatypes, structured but open-ended, designed to support research, multi-authored, primary sources. Combining tools and archival materials framed around a historiographically significant or critical problem, these projects are sprawling investigations into a major problem. Typically gathering thousands of objects and records from widely varying institutions and in widely varying formats, digital history projects contain “digital aggregations” of primary sources that support research on a particular theme or historical question. Scholars embed interpretive affordances in the collection and use these affordances to open up new modes of inquiry and/or discovery. They are open-ended projects and often support ongoing research by multiple scholars or teams. Often traditional peer-reviewed scholarship is derived from the thematic research collection. The next phase of thematic research collections might feature interpretive scholarship embedded within and in relationship to the collection (Palmer, 2004).

**Digital narratives.** These scholarly works are born-digital, and they primarily feature a work of scholarly interpretation or argument embedded within layers of evidence and citation. They do not and presumably cannot exist in analog form. They may be multimodal, multi-authored, and user-directed. They may change between and among readings, either through updates or algorithmic reconstructions. Unlike the first generation of “e-books,” which transferred analog books into digital formats, these nonlinear, multimodal narratives offer explicit hypertext structures. These works primarily provide multiple points of entry for readers and situate evidence and interpretation in ways that allow readers to unpack the scholarly work. They are highly configured, deeply structured, and strongly interpretive pieces of scholarship. They could be standalone self-generating web sites, cloud applications, or presented in a media-rich scholarly publishing framework such as Scalar.

Simulations constitute a new form for scholarly research and publication as well. Interpretive decisions are embedded at every level in any simulated, textured environment, and feature a range of media products, including video, audio, and 3D models
and game engines. Historical simulations and humanities-oriented games possess varying degrees of interpretive strength. Some are purely representational and feature minimal interpretive or argument-driven analysis. Others offer simulated decision-trees in a game-engine environment with heavily interpretive choices (McGann and Drucker, 2000; Coltrain, 2013). Hybrid media objects that combine text, graphics, live action, and animation sequences also constitute what Lev Manovich (2013) calls “a new species” in the digital medium, and they can be evaluated using Murray’s affordance grid as well as the matrix table provided here (Table 36.1). While simulations will likely become in and of themselves a category of digital scholarship with particular characteristics that set them apart from the above types of scholarly work, at this writing they are most commonly used in a supplementary fashion.

In a landmark 1997 study on the future of narrative, Janet Murray emphasized specific qualities inherent in cyberspace, and we may consider in a similar fashion what qualities characterize the above categories of digital scholarship (Murray, 1997). Assessing the types of data, components, organization, scope, interpretive

Table 36.1 Matrix of digital scholarship.

<table>
<thead>
<tr>
<th></th>
<th>Interactive scholarly works</th>
<th>Digital projects or thematic research collections</th>
<th>Digital narratives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of data</strong></td>
<td>Homogeneous, primary</td>
<td>Heterogeneous, primary</td>
<td>Integrated, layered</td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td>APIs, scripting</td>
<td>Schema, data models</td>
<td>Analysis, modules</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Hypothesis</td>
<td>Theme or subject</td>
<td>Criticism</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Tightly defined</td>
<td>Capacious</td>
<td>Problem-oriented</td>
</tr>
<tr>
<td><strong>Interpretative nature</strong></td>
<td>Query-based</td>
<td>Affordances</td>
<td>Multimodal</td>
</tr>
<tr>
<td><strong>Character</strong></td>
<td>Procedural inquiry</td>
<td>Open-ended</td>
<td>User-directed, hypertextual</td>
</tr>
<tr>
<td><strong>Examples</strong></td>
<td>ORBIS (orbis.stanford.edu)</td>
<td>Valley of the Shadow (valley.lib.virginia.edu)</td>
<td>The Differences Slavery Made (www2.vcdh.virginia.edu/AHR)</td>
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<tr>
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<td>Visualizing Emancipation (dsl.richmond.edu/emancipation)</td>
<td>Whitman Archive (whitmanarchive.org)</td>
<td>Gilded Age Plains City (gildedage.unl.edu)</td>
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|                          | O Say Can You See: Early Washington DC Law and Family (earlywashingtondc.org) | Queering Slavery Working Group Tumblr (http://qswg.tumblr.com) | }
nature, and character of digital works allows us to separate one category from another. An ISW, for example, differs from a TRC not only because its scope is more tightly defined, but also because its interpretive nature lies in the query structures it provides the reader rather than in the encoded affordances that a TRC builds into its archival materials. The ISW operates around a series of procedural inquiries, whereas the TRC offers open-ended investigatory structures. These characteristics of the categories are not meant to be exhaustive, but illustrative, as a basis for categorization and review.

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The contested nature of digital scholarship stems in part from an unresolved tension between the digital humanities and the disciplines. Many digital humanists take the position that digital environments demand multimodal, reciprocal, nonlinear modes of scholarship. Scholars in the disciplines perceive an inherent contradiction between that form of scholarship and criticism, review, and evaluation. Because criticism has been based on fixity, the fluidity and reciprocity at the heart of the digital environment’s affordances suggest that traditional mechanisms of review no longer apply. In other words, if the defining characteristic of digital scholarship is that users make their meanings alongside and in relation to the interpretive framework of the creators, then how do we encourage digital scholars to develop arguments and work critically? More fundamentally, is it possible to conduct scholarly argumentation and conversation in this environment?

In the 2004 *Companion to Digital Humanities*, Claire Warwick’s essay urged scholars to take “into account the culture of long-established print scholarship” and to consider “a new way to see, and thus to perceive the complexities in the process of interpreting humanities materials” (Warwick, 2004). The genres for such scholarship were limited in 2004, but a decade later they are beginning to take shape. The majority of all humanities activity is already and will continue to take place in the digital environment. It seems clear that if digital scholars do not shape the future of humanities scholarship online in the open Web, then others will. In short, the grand challenge from nearly 20 years ago is still before the digital humanities. Only now, we have the tools and networks to make progress in ways we did not then. Will humanities scholars continue to produce conventional scholarship only to deposit it online? Or will we fulfill the promise of the digital humanities and take advantage of the networks, spaces, and audiences online to create and refine new forms of our scholarship?

Bridging the gap between the digital humanities and the disciplines will require changes to institutional priorities and practices at all levels by all parties, including the digital humanities community. In the next phase of the digital humanities, scholars may be called upon to play a more purposeful role in making interpretive arguments, to establish genres of digital scholarship, to engage in meaningful critical review of digital scholarship, and to deal more forcefully and deliberately with the digital divides in our disciplines.
The recent controversies at the Modern Language Association over “who’s in and who’s out” of digital humanities and the arguments over whether coding is a necessary characteristic of digital humanists have led to numerous efforts to define digital humanities as a field. As defined here, “building” broadly includes both editing and encoding, as well as, in some cases, programming. The emphasis here is less on programming as a requirement and more on building digital infrastructures that allow interpretive modes of scholarship.

Indeed, Robert Townsend’s 2010 survey of AHA members regarding research and teaching found that nearly half of those polled had considered publishing online, and valued digital publication as a means to reach a wider audience of historians and get their work out more quickly. He also found that those who have not yet published in an online journal, but would consider it, overwhelmingly cited the perception that online scholarship lacks the scholarly recognition and prestige of print publication as the main reason for their reluctance (Townsend, 2010).

The Zotero library, available under the group “DigitalHistory” (http://www.zotero.org/groups/digitalhistory), includes digital history-related projects, tools, essays, and blogs which we located by systematically surveying the websites of various digital history and humanities centers, university history departments, and classroom syllabi, and conducting Google searches for “digital history,” “student projects,” and variations thereof. We also consulted the CHNM Compendium of Digital Humanities for items relating to digital history. In addition, we have documented 281 papers, panels, and sessions related to digital history presented at the AHA from 2003 to 2013. This list was compiled by reading through the online programs for the aforementioned years and making note of the topic and affiliation of the speakers, sessions, or panels. Many scholarly associations, including the Organization of American Historians, do not keep past conference bulletins online, or do so only with titles. We used the AHA not only because it is the largest conference, but also because the AHA’s website includes full title and abstract information for each paper, thus producing the most accurate data.


The Council on Library and Information Resources (CLIR) has provided essential leadership in calling attention to the need for broader investment in digital scholarship. The Digital Public Library of America (DPLA) has begun to focus national attention on the problem of digital preservation and access.

REFERENCES AND FURTHER READING

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