

**The University of Iowa  
School of Library and Information Sciences  
Spring 2015**

Course	SLIS 6140 (021:226) Digital Environments
Instructor	Lindsay Mattock
Office Location	3072 Main Library
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Course Schedule	Mondays, 10:00-12:45, 3092 Main Library
Office Hours	Mondays 1:30-3:30 OR by appointment

### **Scheduling Notes**

The Spring 2015 academic term runs from January 20 – May 8. Our first class meeting will take place Monday, January 26. The last day of class is May 4. The course will not meet during Spring Break, March 15–22.

### **Course Overview + Objectives**

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*“Tools are not just tools. They are cognitive interfaces that presuppose forms of mental and physical discipline and organization. By scripting an action, they produce and transmit knowledge, and in turn, model a world.”<sup>1</sup>*

Digital environments engage a host of actors, from digital tools and machines (harddisks, software applications, computing interfaces) to the people who design and use these technologies. This course will survey the various material, technological, spacial, and cultural influences on digital environments. Over the course of the term, students will gain an understanding of digital culture from and interdisciplinary point of view through the review and reflection on theoretical and historical texts and the examination of case studies from various contexts.

#### **Course Objectives**

In this course, student should develop:

- An understanding of the historical, theoretical, and material conditions that have influenced the development of contemporary digital environments;
- An awareness of interdisciplinary perspectives that can inform the development, use, and stewardship of digital media;
- The ability to articulate critical insights regarding challenges and issues related to the creation and use of digital media in various contexts relevant to Information Professionals.

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<sup>1</sup> Anne Burdick, Johanna Drucker, Peter Lunefeld, et.al., *Digital\_Humanities* (Cambridge, MA: MIT Press, 2012).

## Textbooks

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The required reading for each week will be available online through The University of Iowa Libraries or the ICON course page. Multiple chapters from the following texts will be assigned:

Christine L. Borgman, *Scholarship in the Digital Age: Information, Infrastructure, and the Internet* (Cambridge, MA: MIT Press, 2007).  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=1&docID=10194165&tm=1421703862211>

Paul E. Ceruzzi, *A History of Modern Computing*, 2<sup>nd</sup> edition (Cambridge, MA: MIT Press, 2003).  
<http://site.ebrary.com/lib/uiowa/Doc?id=10229592>

Jeremy Hunsinger, Lisbeth Klastrup, Matthew Allen, *International Handbook of Internet Research* (New York: Springer, 2010).  
<http://link.springer.com.proxy.lib.uiowa.edu/book/10.1007/978-1-4020-9789-8/page/1>

Matthew G. Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2012). (On Reserve)

Janet H. Murray, *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (Cambridge, MA: MIT Press, 2012).  
<http://site.ebrary.com/lib/uiowa/detail.action?docID=10520612&p00=inventing+medium>

## Semester at a Glance

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Week 1   Jan 26	Course Overview + Introduction
Week 2   Feb 2	Early Computing
Week 3   Feb 9	The 'Modern' Computer
Week 4   Feb 16	The Internet + WWW
Week 5   Feb 23	Designing the Machine
Week 6   March 2	Digital Tools and Artifacts
Week 7   March 9	Community and Social Networks
March 16	SPRING BREAK
Week 8   March 23	Space, Place, and Virtual Worlds
Week 9   March 30	Digital Publishing
Week 10   April 6	Informatics and Big Data
Week 11   April 13	Digital Humanities
Week 12   April 20	Digital Cultural Heritage
Week 13   April 27	Twitter Analysis Lab
Week 14   May 4	Final Presentations

## Course Requirements and Grading

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All assignments are to be submitted electronically by 10:00am on the due date. Late assignments will NOT be accepted.

### Assignments at a Glance

Assignment	Points	Due Date
@SLIS6140 Class Twitter Feed	10	Weeks 1 - 13
Twitter Reflection #1	10	Monday, February 16
Twitter Reflection #2	10	Monday, March 23
Twitter Reflection #3	10	Monday, April 20
Technology Review	20	Monday, March 9
Digital Environment Proposal	40	Monday, May 4

#### 1. @SLIS6140 Twitter Feed - 10 points: Weeks 1 through 13

This exercise is designed to provide students with first-hand experience communicating in a digital environment. During the first class session, each student will create a Twitter account and participate in tweeting the course. Instructions for creating a Twitter account and posting to the course Twitter handle @SLIS6140 will be provided by the instructor during the first class meeting. Help guides have also been posted to the ICON course page.

Students are required to post a minimum of 4 new tweets per week. Tweets for each weekly session must be submitted before the start of the following class session (i.e. all Week 1 tweets must be submitted before the start of the Week 2 class session.) Students will begin posting during Week 1 and are expected to participate on Twitter through Week 13 (Week 13 tweets must be submitted by 10:00am, Monday, May 4). Tweets for the final class session are encouraged, but will not be graded. Posts should include original comments, questions, insights, retweets, links to external resources, as well as responses to tweets posted by your classmates. **Each tweet must mention the class handle @SLIS6140 to receive credit.** Students are welcome to Live Tweet each class session, tweeting questions and comments during the class meeting, or may choose to post after the class meeting each week. Assessment will be based on the quality and frequency of the contributions. Your activities on Twitter and patterns of use throughout the term will be used as the basis for three reflection papers described under the second assignment heading, below.

Participation on Twitter will be evaluated throughout the term and the final grade will be calculated according to the following rubric:

Requirement	Point Value	Guidelines
Frequency	2 points	Posts a minimum of 4 tweets before the beginning of the next class session for all required weeks.
Quality	5 points	Contributions demonstrate an understanding of the course material, including the correct use of terminology. Posts integrate outside resources, relevant research, or relevant personal experiences to support comments. Attribution is provided for thoughts/tweets that are not your own.
Engagement	3 points	Posts actively engage with the emerging conversation on the @SLIS6140 feed. Tweets should build the conversation by adding to the argument, suggesting an alternative viewpoint, or asking a new question.

**2. Twitter Reflection and Analysis (x3) – 10 points each, 30 points total**  
**Due: Monday, February 16, March 23, and April 20**

Your weekly participation through Twitter will serve as the basis for three short reflection papers submitted throughout the term. The goal of this assignment is to provide a means for analyzing your personal use of Twitter and engagement with the platform as a digital environment. Prompts have been provided to guide each of the analyses. Each reflection should center on your personal experience, but should also build on themes and topics raised in class or in the required reading. Each reflection should be 500-700 words in length. The individual reflections will serve as qualitative evidence for the Twitter Analysis Lab during the Week 13 class session.

**Reflection Prompts:** The questions in the following prompts may be used as a guide for focusing your analysis. You do NOT need to address all of the questions in your reflection.

<p><b>Reflection #1</b> Due: February 16</p>	<p><b>Reflect on your initial experience using Twitter:</b></p> <ul style="list-style-type: none"> <li>- What was your familiarity with Twitter before the start of the semester? Had you used Twitter before?</li> <li>- Consider your experience creating an account: What information was required to create an account? Did you run into any problems? What information did you put in your profile?</li> <li>- What devices do you use to access Twitter?</li> <li>- What types of tweets have you posted? How do you generate content?</li> <li>- What functionalities of Twitter have you experimented with?</li> <li>- How much time do you spend daily/weekly posting to and exploring twitter?</li> <li>- Are you able to identify any trends in use from the class feed?</li> </ul>
<p><b>Reflection #2</b> Due: March 23</p>	<p><b>Reflect on how your use has changed over the past four weeks:</b></p> <ul style="list-style-type: none"> <li>- What devices do you use to access Twitter? Has this changed?</li> <li>- Have you changed the way you compose tweets?</li> <li>- Have you discovered new functions and uses?</li> <li>- Do you spend more or less time using Twitter?</li> <li>- Are you able to identify any new trends emerging from the class feed?</li> </ul>
<p><b>Reflection #3</b> Due: April 20</p>	<p><b>Reflect on your use of Twitter over the course of the term:</b> In addition to the questions from the previous prompts:</p> <ul style="list-style-type: none"> <li>- Has this tool been useful in generating course content/conversation? Would you recommend its use for future courses or classroom applications?</li> <li>- Has your use of Twitter extended beyond the classroom?</li> <li>- Based on your observations, what suggestions do you have for improving Twitter for classroom applications?</li> </ul>

Reflection papers are to be submitted to the appropriate ICON Dropbox as .doc/.docx or .pdf file. The papers are to be formatted with double-spacing, 1" margins, using a standard 12 pt. font. Submitted papers should include your name, a title, word count, bibliography, and footnotes or parenthetical citation according to your preferred style guide (i.e. Chicago Manual of Style, APA, MLA) – if appropriate. Citations and bibliography are NOT to be included in the final word count.

Each reflection paper will be graded according to the following rubric:

Requirement	Point Value	Guidelines
Self-Reflection	3 points	The paper openly examines your personal experiences and observations engaging with the digital environment. The observations and experiences are used as evidence to support the analysis of your behavior and interactions.
Analysis	5 points	The reflection moves beyond simple description of your experience to an analysis of how the experience connects to the topics, themes, and concepts introduced in the classroom and in the assigned reading. The student synthesizes, analyzes, and thoughtfully evaluates issues and ideas introduced in the course materials as they relate to personal experience.
Clarity of Writing	2 points	The reflection meets the length requirement (500-700 words). The paper shows evidence of proofreading and the proper use of grammar and punctuation. Any citations are properly formatted with footnotes and bibliography.

### 3. Technology Review – 20 points:

**Due: Monday, March 9**

This assignment is designed to give students an opportunity to explore and assess digital environments in relation to professional practice. Technology reviews can be found in popular publications, like *Wired* <http://www.wired.com/category/reviews/>, and are also offered by professional organizations, such as the Society of American Archivists <http://www2.archivists.org/american-archivist-reviews/tech-and-resources>. For this assignment, students will select a digital tool/resource/service and critique its value and use in a particular LIS context (public libraries, archives & special collections, academic libraries, etc.). **Each student must post their selection to the “Technology Review” discussion board by Monday, February 9.**

Using the documentation provided by developers, first-hand observations and knowledge, primary resources such as listservs and social media, and secondary literature, each student will write a 1,000 – 1,500 word critique of the selected technology. The analysis should provide a brief discussion of the history and development of the tool, describe the intended use of the tool, identify the target audience and users, describe the use of the resource in a LIS context, and assess the key strengths and weakness in this particular LIS context.

The Review is to be submitted to the appropriate ICON Dropbox as .doc/.docx or .pdf file. The papers are to be formatted with double-spacing, 1” margins, using a standard 12 pt. font. Submissions should include your name, a title, word count, bibliography, and footnotes or parenthetical citation according to your preferred style guide (i.e. Chicago Manual of Style, APA, MLA). Citations and bibliography are NOT to be included in the final word count.

The Technology Review will be graded according to the following rubric:

Requirement	Point Value	Guidelines
Overview / Background	5 points	The review identifies the type of technology, a brief history, identifies the typical/targeted users, describes how to access the technology, as well as the main purposes or intended uses of the technology.
Evidence and Analysis	10 points	The review addresses where and how the technology has been adopted in an LIS context. The review moves beyond mere reporting to provide a clear analysis of the technology's usefulness and value. Sufficient evidence from primary or secondary sources is provided to support the critique.
Clarity of Writing	3 points	The review meets the length requirement (1,000-1,500 words), and demonstrates proofreading and the proper use of grammar and punctuation.
Use of Bibliographic Apparatus	2 points	All in-text citations (footnotes or parenthetical) are properly formatted according to a standard style guide. The review is also accompanied by a properly formatted bibliography or work cited page.

#### 4. Digital Environment Proposal – 40 points:

**Due: Monday, May 4**

Using the IMLS Sparks! Ignition Grant for Libraries as a framework, students will use their knowledge of design to develop a proposal for a new digital environment, tool, or resource for use in an LIS setting. This assignment has **two parts** (1) the written proposal (2) in-class presentation.

To prepare for this exercise, students may wish to read:

- Leanne Bowler, Sherry Koshman, Jung Sun Oh, et.al., "Issues in User-Centered Design in LIS," *Library Trends* 59, no. 4 (Spring 2011):721-752.

##### (1) Proposal:

The application for the IMLS Sparks! Ignition Grant for Libraries Application will serve as the template for the written proposal. The IMLS Website describes the aims of this funding program:

"Sparks! Ignition Grants for Libraries are a special funding opportunity within the IMLS National Leadership Grants for Libraries program. These small grants encourage libraries and archives to test and evaluate specific innovations in the ways they operate and the services they provide. Sparks Grants support the deployment, testing, and evaluation of promising and groundbreaking new tools, products, services, or organizational practices. You may propose activities or approaches that involve risk, as long as the risk is balanced by significant potential for improvement in the ways libraries and museums serve their communities.

Successful proposals will address problems, challenges, or needs of broad relevance to libraries and/or archives. A proposed project should test a specific, innovative response to the identified problem and present a plan to make the findings widely and openly accessible."

A full description of the funding opportunity can be found at [http://www.ims.gov/applicants/sparks\\_libraries\\_nofa\\_2015.aspx](http://www.ims.gov/applicants/sparks_libraries_nofa_2015.aspx). **The proposal elements have been modified for the purposes of this assignment.** The following elements must be included in the proposal:

**a. Abstract (1 single-spaced page, max):**

The abstract should include the following areas in relation to the proposed project:

- Who are the applicants?
- What is the challenge, problem, or need addressed by the project?
- Who is the intended audience for the project?
- What are the specific performance goal(s), intended outcomes(s), project activities and tangible products?
- Why would this project be important to the library or archival field and/or have the potential to advance practice in the library or archival profession?

**b. Organizational Profile (1 single-spaced page, max):**

The organization profile will provide description of a real or fictionalized institution, and provide the context for your project. The organization profile should include the following elements:

- the organization's mission or statement of purpose
- a description of the organization's service area (communities and audiences served, demographic characteristics, and geographic area)
- a brief history of the organization

**c. Narrative (3-4 single-spaced pages):**

The Narrative will provide a description of your proposed project, including the proposed design. The narrative should address the following questions:

- What do you propose to do?
- What need, problem, or challenge will your project address?
- Who or what will benefit from your project?
- What are the performance goals and intended results of your project?
- Why would this project be important to the library or archival field and/or have the potential to advance practice in the library or archival profession?
- What resources will you need to develop the project?
- How will you evaluate your project?
- What is the potential impact or benefit if the innovation you are testing proves promising?
- How will the proposed project generate results such as models, tools, services, practices, and lessons learned that can be broadly used, adapted, scaled or replicated in the library or archive profession?

**d. Paper Prototypes (2 visuals):**

The proposal should also include at least two visual representations or mock-ups of your project, illustrating the key functions and look-and-feel of the digital environment/tool/service.

**(2) In-Class Presentation:**

Each group will have 10 minutes to present their proposed project during the final class session, Monday, May 4. The presentation should provide a brief introduction to the organizational context and a concise, but thorough presentation of the proposed tool/resource framed by the written narrative. This is your opportunity to "pitch" your project to the class. Each presentation will be followed by a brief Q&A.

The project narrative must be submitted to the appropriate ICON Dropbox as .doc/.docx or .pdf file. Only one member of the group is required to submit the written narrative. The papers are to be formatted with **single-spacing**, 1" margins, using a standard 12 pt. font. All papers should include the names of the group members, a title, word count, bibliography, and footnotes or parenthetical citation according to your preferred style guide (i.e. Chicago Manual of Style, APA, MLA). Citations and bibliography are NOT to be included in the final word count.

Proposals will be graded according to the following rubric:

<b>Written Proposal: 30 points</b>		
<b>Requirement</b>	<b>Point Value</b>	<b>Guidelines</b>
Abstract	5 points	The abstract provides a clear and concise introduction to the project, answering all of the questions posed in the assignment description.
Organizational Profile	5 points	The profile provides a clear description of the organizational context for the project, including: the mission statement, audience served, and a brief history of the organization.
Narrative	10 points	The project narrative should provide a thorough description of the proposed project, answering all of the questions posed in the assignment description. <i>The IMLS Review Criteria will be considered in the scoring for this section:</i> <ul style="list-style-type: none"> <li>- Is the project clearly explained?</li> <li>- Is the need, problem, or challenge to be addressed clearly identified and supported by relevant evidence?</li> <li>- Are the people who will benefit from the project clearly identified, and have they been involved in planning the project?</li> <li>- Are the performance goals and intended results well formulated and achievable?</li> <li>- Does the project address current needs of and/or have the potential to advance practice in the library or archival profession?</li> <li>- Is the proposed project informed by appropriate theory and practice?</li> <li>- Are the project's intended outcomes and performance indicators clearly articulated, appropriate and realistic?</li> <li>- If successful, what value will the results from the proposed project provide to the library or archival field?</li> </ul>
Paper Prototypes (Visuals)	7 points	The narrative is accompanied by at least two visual representation of the proposed project, illustrating the key functions and the look-and-feel of the digital environment/tool/service.
Clarity of Writing and use of Bibliographic Apparatus	3 points	The proposal meets the length requirements, is well organized, and easy to read. The paper shows evidence of proofreading and the proper use of grammar and punctuation. Citations are properly formatted with footnotes and bibliography.



In-Class Pitch: 10 points		
Requirement	Point Value	Guidelines
Organization	2 points	The presentation is well organized and easy to follow. The group utilizes appropriate visuals to accompany the presentation.
Content	6 points	The presentation provides a concise summary of the written proposal, including the organizational profile, project narrative, and visual representations of the project.
Q&A	2 points	The group is prepared to lead discussion and respond to questions from peers.

## Class Policies

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### Grading Scale

<b>A</b>	93-100%	<b>C+</b>	77-79%
<b>A-</b>	90-92%	<b>C</b>	73-76%
<b>B+</b>	87-89%	<b>C-</b>	70-72%
<b>B</b>	83-86%	<b>D</b>	60-69%
<b>B-</b>	80-82%	<b>F</b>	<60%

### Office Hours

Formal office hours will be held on Mondays following the class session from 1:30-3:30. Office hours are optional for students. If this time is inconvenient, students are also encouraged to schedule individual appointments with the professor.

### Assignment Deadlines

All assignments are to be submitted electronically through the designated space in ICON. Assignments are due by 10:00am on the due date. **Late assignments will NOT be accepted.**

### Class Participation and Attendance

Students are expected to come to class prepared to engage with the course materials for the week. Each student should read the assigned materials before class and be prepared to share their observations, questions, and reflections during class.

**Regular and punctual attendance in class is required.** Regular attendance is defined as attendance at not less than 12 of the classes for the semester. Tardiness and leaving class prior to dismissal in excess of 30 minutes will be counted as absenteeism.

### Extenuating Circumstances and Incomplete Grades

Extenuating circumstances (illness, bereavement, etc.) will be considered by the instructor on a case-by-case basis. The student is required to provide evidence of the severity of the situation and must notify the instructor as soon as possible in the event that circumstances prevent a student

from completing a class assignment or attending class. No incomplete grades will be given for this course, unless such circumstances affect a student's ability to meet the requirements for the course.

### *Academic Integrity*

All students are expected to adhere to the standards of academic honesty. Any student engaged in cheating, plagiarism, or other acts of academic dishonesty, will be subject to disciplinary action. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the *Graduate College Rules and Regulations* <http://www.grad.uiowa.edu/manual-part-1-section-iv-academic-standing-probation-and-dismissal>.

### *Students with Disabilities*

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Student Disability Services, 3015 Burge Hall, 319-335-1462/319-335-1498 (TTY), as early as possible in the term. A comprehensive description of the services of that office can be obtained at <http://sds.studentlife.uiowa.edu>.

## **Reading Schedule**

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The reading schedule is subject to modification. Required readings are listed in **BOLD**. Recommended readings are *italicized*. The reading is to be completed BEFORE class each week.

### **Week 1 | Jan 26 - Course Overview + Introduction**

No required reading

### **Week 2 | Feb 2 - Early Computing**

**Janet Abbate, *Recoding Gender: Women's Changing Participation in Computing* (Cambridge, MA: MIT Press, 2012): 73-111.**

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=84&docID=10612430&tm=1421097853684>

**Paul E. Ceruzzi, *A History of Modern Computing*, Second edition (Cambridge, MA: MIT Press, 2003): 47-78.**

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=62&docID=10229592&tm=1421099621000>

**Matthew G. Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2012): 73-109.**

*Paul E. Ceruzzi, Reckoners: The Prehistory of the Digital Computer, From Relays to the Stored Program Concept, 1935-1945 (Westport, CT: Greenwood Press, 1983).*

*Gerard O'Regan, A Brief History of Computing, Second Edition (New York: Springer, 2012).*

*Ron White, How Computers Work, Ninth Edition (Indianapolis: QUE, 2008).*

*Brian Winston, Media Technology and Society, A History: From Telegraph to the Internet (New York: Routledge, 1998).*

## Week 3 | Feb 9 – The ‘Modern’ Computer

### Technology Review Selection Due

Paul E. Ceruzzi, *A History of Modern Computing*, Second edition (Cambridge, MA: MIT Press, 2003): 207-241.

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=222&docID=10229592&tm=1421099677979>

Martin Campbell-Kelly, *From Airline Reservations to Sonic the Hedgehog* (Cambridge, MA: MIT Press, 2004): 201-228.

Matthew G. Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2012): 111-158.

Charles Petzold, *Code: The Hidden Language of Computer Hardware and Software* (Redmond, WA: Microsoft Press, 1999).

Gerard O'Regan, *A Brief History of Computing*, Second Edition (New York: Springer, 2012).

Ron White, *How Computers Work*, Ninth Edition (Indianapolis: QUE, 2008).

Brian Winston, *Media Technology and Society, A History: From Telegraph to the Internet* (New York: Routledge, 1998).

## Week 4 | Feb 16 – the Internet + WWW

### Twitter Reflection #1 Due

Janet Abbate, *Inventing the Internet* (Cambridge, MA: MIT Press, 2000): 181-220.

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=192&docID=10225299&tm=1421097801981>

Paul E. Ceruzzi, *A History of Modern Computing*, Second edition (Cambridge, MA: MIT Press, 2003): 307-344.

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=322&docID=10229592&tm=1421099925227>

N. Katherine Hayles, "Print is Flat, Code is Deep: The Importance of Media Specific Analysis," *Poetics Today* 25, no. 1 (Spring 2004): 67-90.

Joseph B. Miller, *Internet Technologies and Information Services*, Second Edition (Westport, CT: Libraries Unlimited, 2014).

N. Katherine Hayles, *Writing Machines* (Cambridge, MA: MIT Press, 2002).

Robert E. Molyneux, *The Internet Under the Hood: An Introduction to Network Technologies for Information Professionals* (Westport, CT: Libraries Unlimited, 2003).

Gerard O'Regan, *A Brief History of Computing*, Second Edition (New York: Springer, 2012).

Ron White, *How Computers Work*, Ninth Edition (Indianapolis: QUE, 2008).

Brian Winston, *Media Technology and Society, A History: From Telegraph to the Internet* (New York: Routledge, 1998).

## Week 5 | Feb 23 – Designing the Machine

Leanne Bowler and Andrew Large, "Design-based Research for LIS," *Library & Information Science Research* 30 (2008): 39-46.

Lucas D. Introna and Helen Nissenbaum, "Shaping the Web: Why the Politics of Search Engines Matters," *The Information Society* 16 (2000): 169-185.

Janet H. Murray, *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (Cambridge, MA: MIT Press, 2012): 321-339.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=336&docID=10520612&tm=1422034640717>

Langdon Winner, "Do Artifacts Have Politics?," *Daedalus* 109, no. 1 (Winter 1980): 121-136.

Alan R. Hevner, Salvatore T. March, Jinsoo Park and Sudha Ram, "Design Science in Information Systems Research," *MIS Quarterly* 28, no. 1 (2004): 75-105.

Noëmi Manders-Huits, "What Values in Design? The Challenge of Incorporating Moral Values into Design," *Science and Engineering Ethics* 17 (2011): 271-287.

Helen Nissenbaum, "How Computer Systems Embody Values," *Computer* (March 2011): 118-120.

## Week 6 | March 2 – Digital Tools and Artifacts

Bernward Joerges, "Do Politics Have Artefacts?" *Social Studies of Science* 29, no. 3 (June 1999): 411-431.

Bruno Latour, "Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts," in *Shaping Technology/Building Society: Studies in Sociotechnical Change*, Wiebe E. Bijker and John Law, eds. (Cambridge, MA: MIT Press, 1992): 225-258.

Janet H. Murray, *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (Cambridge, MA: MIT Press, 2012): 291-313.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=306&docID=10520612&tm=1422034688905>

Heidi Overhill, "J.J. Gibson and Marshall McLuhan: A Survey of Terminology and Proposed Extension of the Theory of Affordances," *Proceedings of the American Society for Information Science and Technology* 49, no. 1 (2012): 1-4.

James J. Gibson, "The Theory of Affordances," in *People, Place, and Space Reader*, Jen Gieseeking, et. al, eds. (Florence, KY: Taylor and Francis, 2014): 56-60.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=91&docID=10872478&tm=1422034923632>

Ian Hodder, *Entangled: An Archaeology of the Relationship between Humans and Things*, (Malden, MA: Wiley-Blackwell: 2012).

Steve Woolgar and Geoff Cooper, "Do Artefacts Have Ambivalence? Moses' Bridges, Winner's Bridges and Other Urban Legends in S&TS," *Social Studies of Science* 29, no. 3 (June 1999): 433-449.

## Week 7 | March 9 – Community and Social Networks

### Technology Review Due

Benedict Anderson, *Imagined Communities* (New York: Verso, 2006): 1-36.  
<http://quod.lib.umich.edu.proxy.lib.uiowa.edu/cgi/t/text/text-idx?c=acls;idno=heb01609>

Stanley Milgram, "The Small-World Problem," *Psychology Today* 1, no. 1 (May 1967): 61-67.

Janet H. Murray, *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (Cambridge, MA: MIT Press, 2012): 345-372.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=360&docID=10520612&tm=1422034723645>

Michele Willson, "The Possibilities of a Network Sociality," in *The International Handbook of Internet Research*, Jeremy Hunsinger, Lisbeth Klastrup, and Matthew Allen, eds. (New York: Springer, 2010): 493-505.  
[http://link.springer.com.proxy.lib.uiowa.edu/chapter/10.1007/978-1-4020-9789-8\\_30/fulltext.html](http://link.springer.com.proxy.lib.uiowa.edu/chapter/10.1007/978-1-4020-9789-8_30/fulltext.html)

Mark S. Granovetter, "The Strength of Weak Ties," *The American Journal of Sociology* 78, no. 6 (May 1973): 1360-1380.

Mark S. Granovetter, "The Strength of Weak Ties: A Network Theory Revisited," *Sociological Theory* 1 (1983): 201-233.

Kevin Howley, *Community Media: People, Places, and Communications Technologies*, (Cambridge: Cambridge University Press, 2005).

Panayiotis Zaphiris and Chee Siang Ang, eds. *Social Computing and Virtual Communities* (Boca Raton: Chapman & Hall, 2009).

## March 16 | Spring Break

## Week 8 | March 23 – Space, Place, and Virtual Worlds

### Twitter Reflection #2 Due

Steve Harrison and Paul Dourish, "Re-place-ing Space: The Roles of Place and Space in Collaborative Systems," *CSCW '96 Proceedings of the 1996 ACM Conference on Computer Supported Cooperative Work*, Cambridge, MA: 67-76.

Lisbeth Klastrup, "Understanding Online (Game)worlds," in *The International Handbook of Internet Research*, Jeremy Hunsinger, Lisbeth Klastrup, and Matthew Allen, eds. (New York: Springer, 2010): 309-323.  
[http://link.springer.com.proxy.lib.uiowa.edu/chapter/10.1007/978-1-4020-9789-8\\_19/fulltext.html](http://link.springer.com.proxy.lib.uiowa.edu/chapter/10.1007/978-1-4020-9789-8_19/fulltext.html)

William J. Mitchell, *City of Bits: Space, Place and the Infobahn* (Cambridge, MA: MIT Press, 2000): 6-24.

Janet H. Murray, *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (Cambridge, MA: MIT Press, 2012): 380-405.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=394&docID=10520612&tm=1422034753575>

Richard A. Bartle, "From MUDs to MMORPGs: The History of Virtual Worlds," in *The International Handbook of Internet Research*, Jeremy Hunsinger, Lisbeth Klastrup, and Matthew Allen, eds. (New York: Springer, 2010): 23-40.

Henri Lefebvre, "The Production of Space," in *People, Place, and Space Reader*, Jen Giesecking, et. al., eds. (Forence, KY: Taylor and Francis, 2014): 289-293.

Setha Low, "Spatializing Culture: An Engage Anthropological Approach to Space and Place," in *People, Place, and Space Reader*, Jen Giesecking, et. al., eds. (Forence, KY: Taylor and Francis, 2014): 34-38.

Janet H. Murray, *Inventing the Medium: Principles of Interaction Design as a Cultural Practice* (Cambridge, MA: MIT Press, 2012): 161-217.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=176&docID=10520612&tm=1422049048843>

Ray Oldenburg, *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts* (New York: Marlowe & Company, 1997).

## **Week 9 | March 30 – Digital Scholarship and Publishing**

Christine L. Borgman, *Scholarship in the Digital Age: Information Infrastructure, and the Internet* (Cambridge, MA: MIT Press, 2007): 75-114.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=102&docID=10194165&tm=1421703748668>

Christine L. Borgman, *Scholarship in the Digital Age: Information Infrastructure, and the Internet* (Cambridge, MA: MIT Press, 2007): 179-226.  
<http://site.ebrary.com/lib/uiowa/reader.action?ppg=206&docID=10194165&tm=1421704044379>

Carol MacAdam, Kate Duff, and Wendy C. Robertson, "Collaborating for Sustainable Scholarship: Models that Serve Librarians, Publishers, and Scholars," *The Serials Librarian* 62, nos. 1-4 (2012): 73-78.

Eileen Scanlon, "Scholarship in the Digital Age: Open Educational Resources, Publication, and Public Engagement," *British Journal of Educational Technology* 45, no. 1 (2014): 12-23.

Christine L. Borgman, *Big Data, Little Data, No Data* (Cambridge, MA: MIT Press, 2015).

Jessica Litman, *Digital Copyright* (New York: Prometheus Books, 2006).

John Wilinsky, *The Access Principle: The Case for Open Access to Research and Scholarship* (Cambridge, MA: MIT Press, 2009).

## Week 10 | April 6 – ‘Big Data’ and its Discontents

- Christine L. Borgman, Jillian C. Wallis, and Noel Enyedy, “Little Science Confronts the Data Deluge: Habitat Ecology, Embedded Sensor Networks, and Digital Libraries,” *International Journal of Digital Libraries* 7 (2007): 17-30.
- danah boyd and Kate Crawford “Critical Questions for Big Data,” *Information Communication & Society* 15, no. 5 (2012): 662-679.
- Mark Graham, “Geography, and the Future of Big Data, Big Data and the Future of Geography,” *Dialogues in Human Geography* 3, no. 3 (2013): 255-261.
- Matthew Herland, Taghi M. Khoshgoftaar, and Randall Wald, “A Review of Data Mining Using Big Data in Health Informatics,” *Journal of Big Data* 1, no. 2 (2014): <http://www.journalofbigdata.com/content/1/1/2>.
- Chris Anderson, “The End of Theory: The Data Deluge Makes the Scientific Method Obsolete,” *Wired* 16, no. 7 (2008): [http://www.wired.com/science/discoveries/magazine/16-07/pb\\_theory](http://www.wired.com/science/discoveries/magazine/16-07/pb_theory).
- Adam Jacobs, “The Pathology of Big Data,” *Communications of the ACM* 52, no. 8 (August 2009): 36-44.
- Carl Lagoze, “Big Data, Data Integrity, and the Fracturing of the Control Zone,” *Big Data & Society* (July-December 2014): 1-11.
- Jiawei Han and Micheline Kamber, *Data Mining: Concepts and Techniques* (San Francisco: Elsevier, 2006).

## Week 11 | April 13 – Digital Humanities

- Matthew G. Kirschenbaum, “The Remaking of Reading: Data Mining and the Digital Humanities,” *The National Science Foundation Symposium on Next Generation of Data Mining and Cyber-Enabled Discovery for Innovation*, Baltimore, MD. 2007.  
<http://www.csee.umbc.edu/~hillol/NGDM07/abstracts/talks/MKirschenbaum.pdf>
- Daniel V. Pitti, “Designing Sustainable Projects and Publication,” in *A Companion to Digital Humanities*, Susan Schreibman, Ray Siemens, and John Unsworth, eds. (Malden, MA: Blackwell, 2004): Chapter 31  
<http://www.digitalhumanities.org/companion/>
- Bernhard Rieder and Theo Röhle, “Digital Methods: Five Challenges,” in *Understanding Digital Humanities*, David M. Berry ed. (New York: Palgrave Macmillan, 2012):67-84.
- Perry Willett, “Electronic Texts: Audiences and Purposes,” in *A Companion to Digital Humanities*, Susan Schreibman, Ray Siemens, and John Unsworth, eds. (Malden, MA: Blackwell, 2004): Chapter 18  
<http://www.digitalhumanities.org/companion/>

Matthew K. Gold, *Debates in the Digital Humanities* (Minneapolis: University of Minnesota Press, 2012). <http://dhdebates.gc.cuny.edu>

Steven E. Jones, *The Emergence of the Digital Humanities* (New York: Routledge, 2014).

Claire Warwick, Melissa Terras, and Julianne Nyhan, eds., *Digital Humanities in Practice* (London: Facet, 2012).

## **Week 12 | April 20 – Digital Cultural Heritage**

### **Twitter Reflection #3 Due**

Deidre Brown, “Te Ahu Hiko: Digital Cultural Heritage and Indigenous Objects, People, and Environments,” in *Theorizing Digital Cultural Heritage: A Critical Discourse*, Fiona Cameron and Sarah Kenderdine, eds. (Cambridge, MA: MIT Press, 2007): 77-91.

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=92&docID=10190483&tm=1422037929193>

Marlene Manoff, “The Materiality of Digital Collections: Theoretical and Historical Perspectives,” *portal: Libraries and the Academy* 6, no. 3 (July 2006): 311-325.

Trevor Owens, “Digital Cultural Heritage and the Crowd,” *Digital* 56, no. 1 (January 2013): 121-130.

Migquan Zhou, Guohua Geng, and Zhongke Wu, “Introduction” in *Digital Preservation Technology for Cultural Heritage* (Berlin: Springer, 2012): 1-12. <http://link.springer.com.proxy.lib.uiowa.edu/book/10.1007%2F978-3-642-28099-3>

Herminia Din and Steven Wu, *Digital Heritage and Culture: Strategy and Implementation* (Singapore: World Scientific Publishing Company, 2014).

<http://site.ebrary.com/lib/uiowa/reader.action?ppg=1&docID=10983900&tm=1422036958157>

Beryl Graham and Sara Cook, eds. *Rethinking Curating: Art after New Media* (Cambridge, MA: MIT Press, 2010).

Clifford Lynch, “Digital Collections, Digital Libraries and the Digitization of Cultural Heritage Information,” *First Monday* 7, no. 5-6 (May 2002).

<http://firstmonday.org/ojs/index.php/fm/article/view/949/870>

## **Week 13 | April 27 – Twitter Analysis Lab**

Aaron Smith and Joanna Brenner, “Twitter Use 2012,” PewResearch Internet Project, May 21, 2012, <http://www.pewinternet.org/2012/05/31/twitter-use-2012/>.

Mark Graham, Scott A. Hale & Devin Gaffney, “Where in the World Are You? Geolocation and Language Identification in Twitter,” *The Professional Geographer* 64, no. 4 (2014): 568-578.



Alice E. Marwick and dana boyd, "I Tweet Honestly, I Tweet Passionately: Twitter Users, Context Collapse and the Imagined Audience," *New Media & Society* 13, no. 1 (2011): 114-133.

Dhiraj Murthy, "Towards a Sociological Understanding of Social Media: Theorizing Twitter," *Sociology* 46, no. 6: 1059-1073.

## **Week 14 | May 4 – Final Presentations**

**Digital Environment Proposal and Presentation Due**

**No required reading**