

LIS 644: Digital Trends, Tools, and Debates

School of Library and Information Studies
University of Wisconsin-Madison
Summer 2014

Dorothea Salo (please call me “Dorothea”)
Office address: 4261 Helen C. White Hall
Course link page: <http://pinboard.in/u:dsalo/t:644>

salo@wisc.edu, 608-265-4733
Office hours: by appointment
Skype: dorotheasalo



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Course Objectives

- Broad awareness of digital technologies in use in libraries, archives, and other information agencies.
- Vocabulary and knowledge of conventions needed to communicate with technical staff.
- Ability to evaluate, plan and hire for, select, and safely and securely work with digital technologies.
- Awareness of the social and legal forces that impact digital technologies; controversies surrounding them; and the complex relationship between digital technologies and the future of information agencies.
- Ability to contribute appreciably to a team working on a defined project; awareness of project-management tools and techniques.
- Sufficient courage, self-awareness, and skill for self-sufficiency in acquiring technical knowledge.
- Development of ethical and principled approaches to technology adoption and education.

This course is designed to assess student progress in the following SLIS program-level outcomes: 1a, 1b, 2a, 2b, 3b, and 4b.

Course Policies

I wish to fully include persons with disabilities in this course. Please let me know within one week if you require special accommodation. I will try to maintain the confidentiality of this information.

Academic Honesty: I follow the academic standards for cheating and plagiarism set forth by the University of Wisconsin.

This course involves technology education, not technology training; an explicit goal is self-sufficiency in acquiring knowledge about novel technology. I encourage students who want training in specific technologies to discuss possibilities with me.

Readings

There are no required textbooks or software purchases for this course.

Contacting me

Please reread the syllabus, then use the Learn@UW help forum *before* emailing me; please also do your best to assist your classmates on the help forum. I am not available weekends; otherwise, I do my level best to answer email within two business days. If you need to speak with me, please make an appointment with me *directly on WiscCal*, which will email me the appointment information and help ensure I'm not double-booked.

If you see dead links (it does happen, usually with no notice), weird due dates, or other syllabus problems, please post them to the “Syllabus problems” forum on Learn@UW. I will do my best to resolve them promptly.

Course week and due dates

Our course week runs from Monday to Monday. To make my life easier, I am leaving the syllabus in 15-unit form (n.b. these are called “weeks” on Learn@UW, for probably-obvious reasons); we will do two units' worth of content each week EXCEPT the week of June 30, when you are only responsible for Unit/Week 7 (enjoy the July 4th holiday!). All assignments are due Mondays at 5 pm CT unless otherwise stated in the syllabus or the class calendar. Late assignments will be penalized one

final-grade percentage point per day or fraction thereof late. I will allow revision/resubmission at my discretion and on my schedule only; student resistance will remove the opportunity. Unit assignments are due the Monday of the week *after* the week in which the unit appears, by 5 pm CT (e.g. Unit/Week 1 and 2 assignments are due Monday June 16 at 5 pm CT), with the exception of the Unit 14 assignment, which is due Friday August 1.

Weekly Objectives and Readings

Most weeks have linklists associated with them. These are for enrichment, as well as assistance for those delving into related topics for project plans or technology implementations. You are *not* expected to read everything on the linklists! You are expected to read everything else on the reading lists EXCEPT for Unit 15, where you are to read one likely-looking reading from each available list, and otherwise follow your interests.

Theme 1: Fundamentals

Unit 1: What is technology? What information agencies do with technology. Info-agency jobs in technology.

Learning objectives: Technology, technology “stacks,” technology “affordances” and “constraints.” Attitudes toward technology and change. Project management tools and techniques. Technology-centered information-agency jobs. Technology in other information-agency jobs.

Linklists: <http://pinboard.in/u:dsalo/t:trithemius>, <http://pinboard.in/u:dsalo/t:projectmanagement>

Unit assignment: Set your semester goals.

ObXKCD: <http://www.xkcd.com/1227/>

Trithemius, *In praise of scribes* (excerpts). Translated by Dorothea Salo. <http://misc.yarinareth.net/trithemius.html>

Hoffelder, “Infographic: new technology will slay us all and bring down Western civilization.” <http://www.the-digital-reader.com/2013/12/30/infographic-new-technology-will-slay-us-bring-western-civilization/>

Wamsley, “Controlling project chaos: project management for library staff.” *PNLA Quarterly* 73:2 (2009). http://www.pnla.org/assets/documents/Quarterly/pnla_winter09.pdf (pp. 5-6, 27)

Leon, “Project management for humanists.” #alt-academy <http://mediacommons.futureofthebook.org/alt-ac/pieces/project-management-humanists>

Burke, “Survey results: technology skills for librarians and library staff.” <http://techcompanion.blogspot.com/2013/07/survey-results-technology-skills-for.html>

Lefurgy, “What skills does a digital archivist or librarian need?” <http://blogs.loc.gov/digitalpreservation/2011/07/what-skills-does-a-digital-archivist-or-librarian-need/> (please read the comments also)

Wilder, “The New Library Professional.” *Chronicle of Higher Education*. <http://chronicle.com/article/The-New-Library-Professional/46681/>

Unit 2: The innards of computers and networks. Technology standards.

Learning objectives: Bits, bytes, pixels. Parts of a computer. Parts of a network (cable, router, switch, DNS, TCP/IP, IPv4 and IPv6 addressing). Wireless, mobile, and whitespace networks. What standards are for. Standards bodies (W3C, OASIS, ISO, NISO, IETF), library standards and standards work (RDA, “BibFrame,” controlled vocabularies), “open standard.” Patents, patent trolls, and standards.

Linklists: <http://pinboard.in/u:dsalo/t:networking>, <http://pinboard.in/u:dsalo/t:standards>

Unit assignment: Locate technology help online.

ObXKCD: <http://xkcd.com/927/>

Tyson and Crawford, “How PCs Work.” (pages 2-3, 5) <http://computer.howstuffworks.com/pc1.htm>

Erdman, “TCP/IP.” <http://www.networkclue.com/routing/tcpip/>

Brodkin, “White space Internet may finally spread through US.” <http://arstechnica.com/information-technology/2013/07/white-space-internet-may-finally-spread-through-us/>

Mathew, “Explaining SOPA.” <http://meta.ath0.com/2011/12/21/explaining-sopa/> (read this for how DNS works, DNS spoofing, DNSSEC)

Synecdochic, “IP logging, internet privacy, geolocation, and you: facts to consider.” <http://synecdochic.dreamwidth.org/477886.html>

Boudreau, “New Wi-Fi standard will speed up video streaming.” http://www.mercurynews.com/business/ci_20910312/new-wi-fi-standard-will-speed-up-video-streaming

van Beijnum, “25 years of IETF.” <http://arstechnica.com/tech-policy/2011/01/25-years-of-ietf-setting-standards-without-kings-or-votes/>

Unit 3: Technology, the law, and information agencies

Learning objectives: Patriot Act. DOPA, S.49, COPA, CIPA, Do Not Track Kids Act. Terms of service agreements, CFAA, Swartz case. CDA, filtering, E-Rate. Copyright and attempts to enforce copyright strictures on the Internet (ACTA/TPP, “three strikes” laws, SOPA, PIPA, RWA). Net neutrality.

Linklists: <http://pinboard.in/u:dsalo/t:neutralnet>, <http://pinboard.in/u:dsalo/t:sopa>, <http://pinboard.in/u:dsalo/t:filters>, <http://pinboard.in/u:dsalo/t:acta>, <http://pinboard.in/u:dsalo/t:cipa> (note: this is my generic tag for legislative “save the children!” moral panics surrounding the Internet), <http://pinboard.in/u:dsalo/t:swartz>, <http://pinboard.in/u:dsalo/t:tos>

Unit assignment: Write a bug report.

ObXKCD: <http://xkcd.com/488/>

ALA, “The USA Patriot Act and Libraries.” <http://www.ala.org/advocacy/advleg/federallegislation/theusapatriotact> (stop at “Reauthorization History” section)

“Gagged for 6 Years...” http://www.democracynow.org/seo/2010/8/11/gagged_for_6_years_nick_merrill

Carr, “Library Filtering Remains Controversial.” *Baseline*. <http://www.baselinemag.com/c/a/IT-Management/Library-Filtering-Remains-Controversial-581401/>

Anderson, “Libraries dying for bandwidth.” <http://arstechnica.com/tech-policy/news/2009/11/libraries-dying-for-bandwidthwheres-the-fiber-and-cash.ars>

Visser, “E-rate: 900 questions and several late nights later.” <http://www.districtdispatch.org/2013/08/e-rate-900-questions-and-several-late-nights-later/>

Barack, “Common Core will stress already inadequate E-Rate funding.” <http://www.thedigitalshift.com/2012/11/k-12/common-core-will-stress-already-inadequate-e-rate-funding/>

Marwick, “To catch a predator?” *First Monday*. <http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2152/1966> (Abstract and introduction required; the rest is optional, but fascinating)

Gross, “In the battles of SOPA and PIPA, who should control the internet?” *Vanity Fair*. <http://www.vanityfair.com/culture/2012/05/internet-regulation-war-sopa-pipa-defcon-hacking>

Watters, “Reading the Terms of Service for educational sites (or not).” *Inside Higher Ed*. <http://hackeducation.com/2012/10/24/tos-tl-dr/>

Malamud, “On crime and access to knowledge.” <https://public.resource.org/crime/>

Lifehacker. “An introduction to net neutrality.” <http://lifehacker.com/5720407/an-introduction-to-net-neutrality-what-it-is-what-it-means-for-you-and-what-you-can-do-about-it>

Ammori, “We’re about to lose net neutrality -- and the internet as we know it.” <http://www.wired.com/opinion/2013/11/so-the-internets-about-to-lose-its-net-neutrality>

Theme 2: Living on the network

Unit 4: Security on the network

Learning objectives: Authentication, attribution, authorization (two-factor authentication). Software threats (virus, trojan, worm), malware (adware, spyware, hijackers), phishing, pharming, social engineering, denial of service attack. Server and network attacks (“man-in-the-middle” attack, cross-site-scripting attack, dictionary attack, brute-force attack), vulnerabilities and patches (zero-day exploit), firewalls, privileges and privilege-based attacks (rootkit). Password guidelines. VPNs. Encryption. Security policies.

Linklist: <http://pinboard.in/u:dsalo/t:security>

Unit assignment: A reflection on personal digital security.

ObXKCD: <http://xkcd.com/350/> and <http://xkcd.com/936/>

Play with “World’s Biggest Data Breaches” infographic at <http://www.informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-hacks/> How many of these services have you used?

Brodkin, “Viruses, trojans, and worms, oh my.” *ars technica*. <http://arstechnica.com/security/2013/02/viruses-trojans-and-worms-oh-my-the-basics-on-malware/>

Cunningham, “Keep it secret, keep it safe.” *ars technica*. <http://arstechnica.com/security/2013/01/keep-it-secret-keep-it-safe-a-beginners-guide-to-web-safety/>

Ion, “Weekend PSA: keep your computer safe from harm.” *ars technica*. <http://arstechnica.com/security/2012/12/simple-tips-for-keeping-your-computer-safe-and-secure/>

Plum, “User Authentication.” <http://www.arl.org/storage/documents/publications/spec267web.pdf> (pp 9-13)

Hruska, “IRS easily baited, vulnerable to social engineering-based attacks.” *ars technica*. <http://arstechnica.com/news.ars/post/20070805-study-finds-irs-vulnerable-to-social-engineering-based-attacks.html>

“All About Phishing.” <http://www.webopedia.com/DidYouKnow/Internet/2005/phishing.asp>
Delio, “Pharming Out-Scams Phishing.” *Wired*. <http://www.wired.com/techbiz/it/news/2005/03/66853>
Canavan, “Information Security Policy.” http://www.sans.org/reading_room/whitepapers/policyissues/information-security-policy-development-guide-large-small-companies_1331 (Sections 1-3. Skim sections 6-10.)
For consultation: Data Security and Compliance Terms. <http://www.imperva.com/resources/glossary/glossary.html>

Unit 5: Privacy

Learning objectives: Library attitudes toward privacy, and their privacy-protecting practices. Privacy and threats to privacy in networked environments. Social media and privacy. “Metadata,” wi-fi, the NSA, and privacy. Teaching patrons about privacy. Ebooks and privacy. Data mining and reidentification.

Linklists: <http://pinboard.in/u:dsalo/t:privacy>, <http://pinboard.in/u:dsalo/t:facebook/t:privacy>,
<http://pinboard.in/u:dsalo/t:nsa>, <http://pinboard.in/u:dsalo/t:reidentification>

Unit assignment: Privacy policy for a personalized library service

ObXKCD: <http://xkcd.com/155/> and <http://xkcd.com/522/>
Take the EFF’s Know Your Rights! quiz at <https://www.eff.org/pages/know-your-digital-rights-quiz>
Owen, “Big e-reader is watching you.” Paid Content. <http://paidcontent.org/2012/06/29/big-e-reader-is-watching-you/>
Klinefelter, “Library Standards for Privacy: A Model for the Digital World?” http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1621837
Phetteplace, “Libraries & privacy in the internet age.” <http://acrl.ala.org/techconnect/?p=3519>
“Big data is our generation’s civil rights issue, and we don’t know it.” <http://solveforinteresting.com/big-data-is-our-generations-civil-rights-issue-and-we-dont-know-it/>
Levy, “How the NSA almost killed the internet.” <http://www.wired.com/threatlevel/2014/01/how-the-us-almost-killed-the-internet/>
“The Fundamental Limits of Privacy for Social Networks.” <http://www.technologyreview.com/blog/arxiv/25146/>
Madrigal, “Why Facebook and Google’s concept of ‘real names’ is revolutionary.” <http://www.theatlantic.com/technology/archive/2011/08/why-facebook-and-googles-concept-of-real-names-is-revolutionary/243171/>
Schneier, Bruce. “Privacy Salience and Social Networking Sites.” http://www.schneier.com/blog/archives/2009/07/privacy_salience.html
Carioli, “When the cops subpoena your Facebook information, here’s what Facebook sends the cops.” <http://blog.thephoenix.com/BLOGS/phlog/archive/2012/04/06/when-police-subpoena-your-facebook-information-heres-what-facebook-sends-cops.aspx>
Hartzog and Selinger, “Obscurity: a better way to think about your data than ‘privacy.’” *The Atlantic*. <http://www.theatlantic.com/technology/archive/2013/01/obscurity-a-better-way-to-think-about-your-data-than-privacy/267283/>

Unit 6: Websites and their care and feeding. Mobile websites and apps.

Learning objectives: Web technology stack (web server, FTP, HTML, CSS, AJAX, database-driven applications, web-programming languages). Weblog, wiki, content management system, content transclusion (via RSS, Twitter, etc). Usability and user testing. Writing for the web. Common errors in library website design. Responsive design. Smartphones, apps, web development for mobile devices, texting/SMS, mobile demographics, geolocation, privacy. Tablet computers for specific demographics.

Linklists: <https://pinboard.in/u:dsalo/t:webdesign>, <https://pinboard.in/u:dsalo/t:usability>, <https://pinboard.in/u:dsalo/t:accessibility>, <https://pinboard.in/u:dsalo/t:responsivedesign>, <https://pinboard.in/u:dsalo/t:mobile>, <https://pinboard.in/u:dsalo/t:webwriting>

Unit assignment: Rewrite a web page using best practices.

Reidsma, “Responsive web design for libraries: beyond the mobile web.” http://scholarworks.gvsu.edu/library_books/5/
Marty and Twidale, “Usability@gomph.” First Monday. <http://www.firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1260/1180>
Fulton, “Library perspectives on Web content management systems.” First Monday. <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2631/2579> (Pay attention to the politics of CMS migration.)
Mano and Schacher, “The seven deadly sins of library websites.” <https://docs.google.com/file/d/0B2rHQThAyepyOE5qQXgzaTgyZjg/edit?pli=1>

Schmidt, "Writing for the Web: Save the Time of the Reader" <http://www.walkingpaper.org/5225>
"Library Accessibility: What You Need To Know." <http://www.ala.org/ascla/asclaprotocols/accessibilitytipsheets/> (read all; pay special attention to "Management" and "Assistive Technology")
Wikipedia, "Search engine optimization." http://en.wikipedia.org/wiki/Search_engine_optimization
Enis, "Patrons expect more mobile services." The Digital Shift. <http://www.thedigitalshift.com/2012/08/mobile/patrons-expect-more-mobile-services-handheld-librarian-conference/>
Reidsma, "Libraries and the myth of mobile phone use." <http://matthew.reidsrow.com/articles/21>
Lloyd, "Apps and babies: keeping our heads (and our iPads)." <http://www.slideshare.net/elloyd74/apps-and-babies>
MIT Libraries, "Apps for Academics." <http://libguides.mit.edu/apps> (click through the tabs, skim the pages)

Unit 7: Information agencies and the social web

Learning objectives: Online audio/video, Twitter, Facebook, Google+, LinkedIn, chat, Wikipedia and libraries, geolocation, crowdsourcing, professional networking online, social bookmarking/citation management, tagging, folksonomy, mashups (AJAX) and widgets, APIs, protocols. Social-media policies; social-media program assessment.

Linklists: <https://pinboard.in/u:dsalo/t:socialmedia>

Unit assignment: Make a social-media crisis-communication plan.

ObXKCD: <http://xkcd.com/802/>

"Application programming interface." http://en.wikipedia.org/wiki/Application_programming_interface

Miller, "So what's a mashup anyway?" http://blogs.capita-libraries.co.uk/panlibus/2006/06/06/so_whats_a_mash/

Lamb, "Folksonomies and Rich Serendipity." http://www.greenchameleon.com/gc/blog_detail/folksonomies_and_rich_serendipity/

"Chat reference." <http://www.teachinglibrarian.org/oldsite/chat.htm>

Hickey, "Back to school: an Evernote scavenger hunt." <http://blog.evernote.com/2012/08/16/back-to-school-an-evernote-scamenger-hunt-education-series/>

Fiander, "Social media for academic libraries." <https://works.bepress.com/djfiander/2/>

Potter and Woods, "Escaping the echo chamber." http://www.netvibes.com/nedpotter#The_Echo_Chamber (at minimum, click through the Prezi presentation OR read the article)

Simon, "An open letter to museums on Twitter." <http://museumtwo.blogspot.com/2008/12/open-letter-to-museums-on-twitter.html>

Madrigal, "What Big Media could learn from the NYPL." <http://www.theatlantic.com/technology/archive/2011/06/what-big-media-can-learn-from-the-new-york-public-library/240565/>

Dempsey, "Managing our online professional lives." <http://www.slideshare.net/lisld/managing-our-online-professional-lives>

Thomas, "You will notice less of NIU Rare Books on social media these days..." <http://lynnemthomas.com/?p=1041>

Unit 8: Teaching and learning (on) the network

Learning objectives: "Digital natives" and other (faux or real) technology demographics. Supporting distance education. Digital research guides. MOOCs. Teaching and supporting technology. Redressing digital divides. Gamification, badges.

Linklists: <https://pinboard.in/u:dsalo/t:digitalnatives>, <https://pinboard.in/u:dsalo/t:edtech>, <https://pinboard.in/u:dsalo/t:teched>, <https://pinboard.in/u:dsalo/t:gamification>, <https://pinboard.in/u:dsalo/t:techsupport>

Unit assignment: SQL Homework 1

ObXKCD: <http://xkcd.com/627/>

Pew Internet, "How teens do research in the digital world." <http://www.pewinternet.org/2012/11/01/how-teens-do-research-in-the-digital-world/>

Kolowich, "What students don't know." *Inside Higher Ed*. http://www.insidehighered.com/news/2011/08/22/serial_study_of_student_research_habits_at_illinois_university_libraries_reveals_alarmingly_poor_information_literacy_and_skills

Dworschak, "Logging Off: The Internet Generation Prefers the Real World." <http://www.spiegel.de/international/zeitgeist/0,1518,710139,00.html>

"Keeping an electronic eye on Johnny." http://host.madison.com/ct/news/local/education/local_schools/article_17ea45ba-ad97-11df-8583-001cc4c03286.html

Kim, "Why gamify and what to avoid in library gamification." <http://www.bohyunkim.net/blog/archives/2137>

“User Testing in the Wild: Joe’s First Computer Encounter.” <http://jboriss.wordpress.com/2011/07/06/user-testing-in-the-wild-joes-first-computer-encounter/> (beware the comments; some are good, some are stunningly creepy)

Poke through UW-Madison’s LibGuides at <http://researchguides.library.wisc.edu/> and read through the information about Library Course Pages <http://www.library.wisc.edu/lcp/index.html>

West and Engstrom, “Touring the Digital Divide.” <http://www.librarian.net/talks/sxsw10/> (read the slides at least)

“Guidelines for distance learning library services.” <http://www.ala.org/acrl/standards/guidelinesdistancelearning> (Part I)

Watters, “Top ed-tech trends of 2013: MOOCs and anti-MOOCs.” <http://www.hackeducation.com/2013/11/29/top-ed-tech-trends-2013-moocs/>

Fowler and Smith, “Drawing the blueprint as we build: setting up a library-based copyright and permissions service for MOOCs.” *D-Lib Magazine*. <http://www.dlib.org/dlib/july13/fowler/07fowler.html>

West, “On the Fly Tech Support” <http://www.librarian.net/talks/iowa2009/index.html> (read the slides, click links)

Kelly and Hibner, “Thingamabobs and doodads: why tech support IS reference.” <http://www.slideshare.net/awfullibrarybooks/thingamabobs-and-doodads-tech-support-is-reference-15085173>

Allardice, “Foundations of programming: databases.” (Watch/read “Welcome,” “What are databases?” “The features of a relational database” Go through the login at <http://www.doit.wisc.edu/training/lynda/> for access to all videos.)

Theme 3: Information-agency–specific technology

Unit 9: The Integrated Library System and related software.

Learning objectives: Software development models (off-the-shelf, customized, homegrown, open-source) and their pros and cons. Software selection processes, RFPs. Protocols and APIs (recap). ILS modules. ILS vendors. “Resource discovery” landscape. Metasearch versus local indexing. Electronic-resource managers. Proxy servers. Link resolvers (the “appropriate copy” problem). OpenURL. The future of MARC.

Unit assignment: SQL Homework 2

ObXKCD: <http://xkcd.com/225/> and <http://xkcd.com/743/>

“Comparison of open source and closed source.” Wikipedia. http://en.wikipedia.org/wiki/Comparison_of_open_source_and_closed_source

Askey, “Yes, we love open-source software. No, you can’t have our code.” <http://journal.code4lib.org/articles/527>

Lown, Sierra, and Boyer, “How users search the library from a single search box.” <http://crl.acrl.org/content/early/2012/01/09/crl-321.full.pdf+html>

Coco, “Convenience and its discontents.” <http://acrlog.org/2012/01/27/convenience-and-its-discontents-teaching-web-scale-discovery-in-the-context-of-google/>

Dempsey, “Outside-in and inside-out.” <http://orweblog.oclc.org/archives/002047.html>

Watters, “The search for a minimum viable record.” <http://radar.oreilly.com/2011/05/minimum-viable-record.html>

Rochkind, Jonathan. “article search, and catalog search.” <http://bibwild.wordpress.com/2011/08/08/article-search-and-catalog-search/>

Coyle, Karen. “From MARC to principled metadata.” <http://kcoyle.blogspot.com/2011/05/from-marc-to-principled-metadata.html>

Apps and MacIntyre, “Why OpenURL?” <http://www.dlib.org/dlib/may06/apps/05apps.html>

w3schools.com, SQL tutorials. http://www.w3schools.com/SQL/sql_syntax.asp, http://www.w3schools.com/SQL/sql_select.asp, and http://www.w3schools.com/SQL/sql_where.asp

w3schools.com, SQL tutorials. http://www.w3schools.com/SQL/sql_and_or.asp and http://www.w3schools.com/SQL/sql_func_count.asp.

Allardice, “Foundations of programming: databases.” (Watch/read “Creating SQL queries” and “Creating the WHERE clause.”)

Unit 10: Current technologies of information organization. Document markup. Linked data.

Learning objectives: What is a markup language? XML. XML well-formedness. XML validity (DTDs, schemas, validators, tag libraries and other documentation). Linked data and RDF (SKOS, BIBFRAME).

Unit assignment: SQL Homework 3

Lubas, Jackson & Schneider. *The Metadata Manual*. (Chapter on e-reserve.)

“A Gentle Introduction to XML.” <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/SG.html> (Through “An example schema,” but keep going if you like.)

Kelley. “How the W3C has come to love library linked data.” <http://lj.libraryjournal.com/2011/08/technology/how-the-w3c-has-come-to-love-library-linked-data/>

OCLC. “Linked Data for Libraries.” <https://www.youtube.com/watch?v=fWfEYcnk8Z8>

W3C. “SKOS primer.” <http://www.w3.org/TR/skos-primer/> (sections 1 and 2 only)

Chapple, “Database keys.” <http://databases.about.com/od/specificproducts/a/keys.htm>

Allardice, “Fundamentals of programming: databases.” (Watch/read “Exploring unique values and primary keys” and “Defining table relationships.”)

Unit 11: Metadata standards. How search engines work.

Learning objectives: Index, spider/crawler, TF/IDF, search engine optimization. Relevance ranking, deduplicating, and faceted browsing. Common metadata taxonomy (descriptive, administrative, structural, preservation). Common metadata standards and other XML languages in information agencies (METS, MODS, Dublin Core, TEI, EAD).

Linklists: <https://pinboard.in/u:dsalo/t:metadata>, <https://pinboard.in/u:dsalo/t:linkeddata>, <https://pinboard.in/u:dsalo/t:searching>, <https://pinboard.in/u:dsalo/t:tfidf>

Unit assignment: SQL Homework 4

ObXKCD: <http://xkcd.com/369/>

Franklin, “How Internet Search Engines Work.” <http://computer.howstuffworks.com/search-engine.htm> (Parts 1-4)

DuckDuckGo. “Escape your search engine’s filter bubble.” <http://dontbubble.us/>

Rochkind, Jonathan. “Information retrieval and relevance ranking for librarians.” <http://bibwild.wordpress.com/2011/03/28/information-retrieval-and-relevance-ranking-for-librarians/>

Antelman, Lynema, and Pace. “Toward a 21st Century Library Catalog.” http://eprints.rcclis.org/8177/1/antelman_lynema_pace.pdf

Library of Congress. “Development of the Encoded Archival Description DTD.” <http://www.loc.gov/ead/eaddev.html>

Dempsey, Lorcan. “Metadata sources.” <http://orweblog.oclc.org/archives/002009.html>

Riley, “Seeing Standards.” <http://www.dlib.indiana.edu/~jenlrile/metadatamap/> (Download the poster and read the legend and definitions carefully.)

Kennedy, “Nine questions to guide you in choosing a metadata schema.” <https://journals.tdl.org/jodi/article/viewArticle/226/205>

Cundiff and Trail, “Using METS and MODS...” <http://www.loc.gov/standards/mods/presentations/mets-mods-morgan-ala07/>

“SQL Join.” http://www.quackit.com/sql/tutorial/sql_join.cfm (read ONLY about inner joins; outer joins will confuse you!)

Allardice, “Fundamentals of programming: databases.” (Watch/read “Joining tables” through 4:30. When doing your homework, please use INNER JOIN where Allardice just says JOIN.)

Unit 12: Digitization

Learning objectives: Collection development for digitization projects. Planning and managing digitization projects. Costing and funding digitization projects. Types of digitization projects. Equipment and software for digitization projects. Digitization-project workflows. Copyright and digitization projects. Archival master files vs. dissemination files. MPLP digitization; digitization on accession. Mass digitization projects (Google Books, Hathi Trust, Europeana, DPLA). OCR.

Linklists: <https://pinboard.in/u:dsalo/t:digitization>, <https://pinboard.in/u:dsalo/t:googlebooks>, <https://pinboard.in/u:dsalo/t:hathi>, <https://pinboard.in/u:dsalo/t:dpla>, <https://pinboard.in/u:dsalo/t:mplp>

Unit assignment: Outreach plan for a digital collection.

ObXKCD: <http://xkcd.com/619/>

Carter, “It’s the collections that are special.” <http://www.inthelibrarywiththeleadpipe.org/2009/its-the-collections-that-are-special/>

Schonfeld, “Inside the New Museum’s vast, beautiful, and totally insane digitization project.” <http://www.theatlanticwire.com/entertainment/2013/07/new-museums-vast-beautiful-and-insane-digitization-project/67567/> (What makes it insane?)

Ranger, “More bytes, less bite.” <http://www.archivists.org/conference/sanfrancisco2008/docs/session701-ranger.pdf>

Khan, “Digitizing Milwaukee’s Polonia: the digital assembly line.” <http://uwmdigitalcollections.wordpress.com/2013/02/07/digitizing-milwaukes-polonia-the-digital-assembly-line/>

McCrary, "Conservation and digital imaging" <http://library.osu.edu/blogs/digitalscholarship/2013/06/18/conservation-and-digital-imaging-1/> and <http://library.osu.edu/blogs/digitalscholarship/2013/07/19/conservation-and-digital-imaging-part-2/>

Royster, "The art of scanning." http://digitalcommons.unl.edu/ir_information/67/

"The TRNLN's intellectual property rights strategy for digitization of modern manuscript collections and archival record groups." <http://www.trln.org/IPRights.pdf>

"Unlocking the riches of Hathi Trust." <http://www.americanlibrariesmagazine.org/article/unlocking-riches-hathitrust>

Vandegrift, "The Digital Public Library of American: details, the librarian response, and the future." <http://www.inthelibrarywiththeleadpipe.org/2013/dpla/>

Unit 13: Digital preservation

Learning objectives: Threats to digital materials. Format migration vs. system emulation. Preservability of common file formats. "Preservation copy" and Google Books. Types of digital archives (institutional repository, disciplinary repository, data archive, "trusted digital repository," dark archive). Web archiving. LOCKSS/CLOCKSS and Portico. eScience, cyberinfrastructure, and data curation. Personal digital archiving.

Linklists: <https://pinboard.in/u:dsalo/t:digitalpreservation>, <https://pinboard.in/u:dsalo/t:personalarchiving>, <https://pinboard.in/u:dsalo/t:irs>, <https://pinboard.in/u:dsalo/t:webarchiving>, <https://pinboard.in/u:dsalo/t:668> (don't drown in this one!)

Unit assignment: Reflect on the longevity of your personal digital materials.

ObXKCD: <http://xkcd.com/512/>

Rosenthal, "Requirements for digital preservation systems: a bottom-up approach." D-Lib Magazine. <http://www.dlib.org/dlib/november05/rosenthal/11rosenthal.html>

ICPSR, "Digital Preservation Management." http://www.dpworkshop.org/dpm-eng/eng_index.html (All sections! Don't sweat the jargon; your goal is a broad sense of what digital preservation involves.)

"Sustainable Economics for a Digital Planet." http://brtf.sdsc.edu/biblio/BRTF_Final_Report.pdf (pp 1-16)

"Sustainability health check tool for digital content projects." http://sca.jiscinvolve.org/wp/files/2013/01/sustainability_healthcheck_tool.pdf

LeFurgy, "10 resources for community digital archives." <http://blogs.loc.gov/digitalpreservation/2013/06/10-resources-for-community-digital-archives/> (Please click through to and skim at least two resources on the list.)

LeFurgy, "Digital preservation: a role for public libraries." <http://agogified.com/1075>

Library of Congress. "Personal Digital Archiving Day Kit." <http://www.digitalpreservation.gov/personalarchiving/padKit/index.html> (download and read the PDF reference copy)

Lazorchak, "Whither digital video preservation?" <http://blogs.loc.gov/digitalpreservation/2011/07/whither-digital-video-preservation/>

Lynch, "Institutional repositories." <http://www.arl.org/resources/pubs/br/br226/br226ir.shtml>

Look around in SSRN (<http://ssrn.com/>) and MINDS@UW (<http://minds.wisconsin.edu/>).

ARL, "Agenda for Developing E-Science." http://www.arl.org/bm-doc/ARL_EScience_final.pdf (pp. 3-13)

Unit 14: Ebooks

Learning objectives: IDPF, EPub vs. PDF vs. .mobi/.aws, DRM, "first-sale," leased vs. owned information, libraries as publishers, print-on-demand. Licensing ebooks; e-reserves. Patron-driven acquisition. Acquiring and cataloging ebooks.

Linklists: <https://pinboard.in/u:dsalo/t:ebooks>, <https://pinboard.in/u:dsalo/t:drm>, <https://pinboard.in/u:dsalo/t:pod>

Unit assignment: Failure assessment

ObXKCD: <http://xkcd.com/750/> and <http://xkcd.com/488/>

Colbow, "Why DRM doesn't work." http://bradcolbow.com/archive/view/the_brads_why_drm_doesnt_work/?p=205

"ePUB: the language of ebooks -- a primer." <http://epubsecrets.com/epub-the-language-of-ebooks-a-primer.php>

University of Denver Libraries, "E-book collections access and licensing agreements." <http://libguides.du.edu/content.php?pid=106644&sid=1292183> (note what varies, and how much!)

Ball, "E-books in practice: the librarian's perspective." <http://epub.uni-regensburg.de/2047/1/Ba11.pdf>

Kolowich, "Affection for PDA." *Inside Higher Ed.* <http://www.insidehighered.com/news/2012/06/20/research-foresees-demand-driven-book-acquisition-replacing-librarians-discretion>

Mod, "Books in the age of the iPad." http://craigmod.com/journal/ipad_and_books/

Bayley, "E-Book buyer's guide to privacy." <https://www.eff.org/deeplinks/2012/11/e-reader-privacy-chart-2012-update>

Neuberger, "Who owns your ebook...? Probably not you." <http://www.pbs.org/mediashift/2010/08/who-owns-your-e-book-of-war-and-peace-probably-not-you225.html>

ALA, "What is DRM and what does it mean for your library?" http://www.districtdispatch.org/wp-content/uploads/2012/07/drm_tip_sheet.pdf

Farivar, "The music industry dropped DRM years ago. So why does it persist on e-books?" *ars technica*. <http://arstechnica.com/business/2012/12/the-music-industry-dropped-drm-years-ago-so-why-does-it-persist-on-e-books/#>

Yelton, "Ebooks, choices, and the soul of librarianship." *The Digital Shift*. <http://www.thedigitalshift.com/2012/07/ebooks/ebooks-choices-and-the-soul-of-librarianship/>

Unit 15: Changing as the world around us changes

(You do not have to read everything on the reading list this week. Pick at least one reading from each category below; otherwise, follow your own interests!)

Learning objectives: Strategic planning around technology. Assessing technology projects and programs. Hiring and managing technologists. Professional development and reskilling. Change management. Barriers to change. Current loci of technological change in information agencies (makerspaces, linked data, research-data management, ebooks, digital preservation, tablet computing, tech training, design thinking, self-publishing and library publishing, crowdsourcing, etc).

Linklists: <https://pinboard.in/u:dsalo/t:libpublishing>, <https://pinboard.in/u:dsalo/t:envirosan>, <https://pinboard.in/u:dsalo/t:crowdsourcing>, <https://pinboard.in/u:dsalo/t:makerspaces>, <https://pinboard.in/u:dsalo/t:linkeddata>

ObXKCD: <http://xkcd.com/544>

Futurology:

Lankes, "Libraries are obsolete." http://www.olaweb.org/assets/documents/olaq_18no2.pdf pp. 12-17 (reading the rest of the issue encouraged!)

Williams, "The future of libraries is..." <http://librarian.newjackalmanac.ca/2012/11/the-future-of-libraries-is.html>

Morville, "Inspiration architecture: the future of libraries." <http://semanticstudios.com/publications/semantics/000664.php>

Zickuhr et al., "Library services in the digital age." <http://libraries.pewinternet.org/2013/01/22/Library-services/>

Mathews, "Think like a startup." <http://vtechworks.lib.vt.edu/handle/10919/18649>

Rundle, "Libraries as software." <http://hughrundle.net/2012/04/04/libraries-as-software-dematerialising-platforms-and-returning-to-first-principles/>

Rogers, "Moving beyond book museums." <http://www.attemptingelegance.com/?p=1947>

Coping with tech:

Morgenstern and Jones, "Library strategic planning: voyage of starship Enterprise or Spruce Goose?" http://www.cla.ca/feliciter/2012/58-5/Feliciter5_Vol_58_web.pdf pp. 12-15 (reading the rest of the issue encouraged!)

Linderman, "How to hire a programmer when you're not a programmer." <http://37signals.com/svn/posts/2628-how-to-hire-a-programmer-when-youre-not-a-programmer> (Read critically, please!)

Chevalier, "Hiring based on hobbies: effective or exclusive?" <http://geekfeminism.org/2012/11/12/hiring-based-on-hobbies-effective-or-exclusive/> (Use this as a mental corrective to the piece above, which is seriously problematic despite a few useful tips.)

Kim, "Why not grow coders from the inside of libraries?" <http://www.bohyunkim.net/blog/archives/1099>

Salo, "Continuing education in LIS." <http://lj.libraryjournal.com/2012/12/opinion/peer-to-peer-review/continuing-education-in-lis-how-should-we-train-reskillers-peer-to-peer-revieww/>

Trends and tools:

Samtami, "Meet the makers." *The Digital Shift*. <http://www.thedigitalshift.com/2013/06/k-12/meet-the-makers-can-a-diy-movement-revolutionize-how-we-learn/>

Sefton-Green, "Towards the value, purpose, and sustainability of out-of-school learning." <http://dmlcentral.net/blog/julian-sefton-green/towards-value-purpose-and-sustainability-out-school-learning>

Coyle, "Linked data first steps & catch-21." <http://kcoyle.blogspot.com/2013/07/linked-data-first-steps-catch-21.html>

Holley, "Crowdsourcing: how and why should libraries do it?" *D-Lib Magazine*. <http://www.dlib.org/dlib/march10/holley/03holley.html>

LaRue, "Wanna write a good one? Library as publisher." *American Libraries*. <http://www.americanlibrariesmagazine.org/article/wanna-write-good-one-library-publisher>

www.americanlibrariesmagazine.org/article/wanna-write-good-one-library-publisher

Williams, "The library as copy machine: part I." <http://librarian.newjackalmanac.ca/2013/07/the-library-as-copy-machine-part-i.htm>

ASSIGNMENTS

Grading Schema and Due Dates

Assignments	Percentage	Due Date
Unit assignments	30%	(5 pm Mondays; four lowest dropped)
Position description and interview	20%	23 June
Interview evaluation email		30 June
Short webinar	20%	14 July
Project plan/technology implementation	30%	1 August
(see final-project description for deliverables and due dates)		

Final grade scale: 100-93.5 A; 93.4-89.5 AB; 89.4-83.5 B; 83.4-79.5 BC; 79.4-73.5 C, 69.5-73.4 D, below 69.5 F

No extra credit opportunities are available in this class. Not completing the position description/interview project, the short webinar, OR more than six weekly assignments will result in an automatic F for the course. Though this course does not include a readings-and-participation grade, I expect you to do the reading and work through the class screencasts and other activities; they are in no way optional! I reserve the right to lower a final grade by up to two letter grades to reflect lack of attention to regular classwork.

Unit assignments

For each unit, you will have an assignment or reflection to complete, due at 5 pm CT the next Monday. Pay special attention to instructions for turning these in! Some will be posted to Learn@UW forums (*not* as Word or PDF attachments, please!), others deposited in a Learn@UW dropbox, others done via a Learn@UW quiz. The four lowest grades will be dropped; simply omit any unit assignment to have its grade dropped *EXCEPT* the final unit's failure reflection, which is required. Word to the wise: mid-course SQL assignments are difficult for some, so you may want to reserve a drop or two for them.

I will assess reflective assignments (e.g. Unit 4) on clarity of communication (including spelling and grammar as well as web-writing best practices), depth of thought, and use of links, readings, and other background knowledge as support.

Unit 1: Set your semester goals

Many students feel daunted by the breadth of technology knowledge and skills available, so much so that they can feel too paralyzed to learn. To avoid that syndrome in this class, please write a statement of your goals for your own technology skills and knowledge *this semester*. (If you wish, you may place these in the context of broader technology-education goals you have for yourself, but please focus your statement just on this semester!) Look over this syllabus to guide your thinking, but I encourage you to look elsewhere as well, nor need you limit yourself just to this class. Consider including:

- specific technologies or tech-related ideas you would like to understand
- jargon you would like to understand and use
- technology-related social or professional issues you wish to build an informed opinion on
- technologies you would like to learn to use, build, or maintain
- technology-related dilemmas related to your career goals that you would like to resolve for yourself

Post your statement to the designated Learn@UW forum. (Note: this forum will not be opened to the full class; your goals are *strictly* between you and me. I may follow up via email or discuss themes I see with the full class. Because not even you will be able to see your statement once it is posted, I recommend cutting-and-pasting it elsewhere so that you can return to it for the final weekly assignment.)

Unit 2: Locate technology help online

Choose one of the following technological feats (honor system: one you do not already know how to do, please):

- Redesigning a website to be mobile- and tablet-friendly via "responsive design"
- Implementing a digital-forensics workflow to archive/preserve born-digital materials
- Putting together a tablet for in-library use with educational apps for youth (please define "youth" broadly!)

- Implementing content filters on public or school library computers to comply with E-Rate requirements
- Maintaining several social-media accounts as efficiently as possible

Post the following to the designated Learn@UW forum (along with the feat you are searching for help on):

- TWO weblogs or other online publications with articles that will help you do this; only one weblog/publication may be library- or archive-specific
- ONE online venue (Q&A website, listserv, wherever) where you can ask questions specific to this challenge
- ONE person contactable through social media (any platform, but *email doesn't count*) with expertise likely to be useful (active accounts only, please! and yes, you may search for someone whose weblog or article you found)

Unit 3: Report that bug!

Find something that really annoys you about Learn@UW. (I suspect this is not hard. Pro tip: if you have a tablet or smartphone, try to use Learn@UW on it.) Write a bug report useful enough that a developer could reproduce and fix your bug. Remember the pattern:

- what you did
- what happened when you did it
- what you expected to happen instead
- any troubleshooting you tried that didn't work
- any information about your setup that you think might be helpful for diagnosis

Post your bug report to the designated Learn@UW forum.

Unit 4: Personal digital security

On the designated Learn@UW forum, please tell a story about computer-security issues you have personally experienced, and/or ones you've witnessed or heard about from family and friends. (Don't worry; we're all friends here! I've had blogs and Twitter accounts hacked, for that matter.) With those experiences as background, suggest one *feasible way other than a training workshop* that an information agency (library, archive, records-management office, etc) can help improve its patrons' computer-security practices *without panicking or confusing them*.

Unit 5: Privacy policy language for a personalized library service

You have been told that your library plans to keep individual library circulation histories (on an opt-out basis; histories will be kept unless patrons signal otherwise) because patrons have been asking for them. Write a section of a library privacy policy clearly explaining to patrons what the library is doing and what the privacy implications are. Recall that nobody likes reading legalese, and draft accordingly! Post your policy to the designated Learn@UW forum.

Unit 6: Rewrite a library web page

Text from real-world library web pages has been posted to Learn@UW. Choose one text to rewrite for conciseness and clarity, according to the web-writing best practices you read about. Remember to consider what the page's audience is and what they want from the page. Post your rewrite and a brief bullet-list of the problems you fixed to the designated Learn@UW forum; feel free to use the formatting features on the Learn@UW composition window's "Advanced" tab.

Unit 7: Make a social-media advocacy plan

EMERGENCY! The information agency or unit you work in (may be actual or fictional) has been threatened with closure! It needs to get the word out and find allies fast. Your supervisor has asked you to come up with a plan and compelling message to accomplish this goal. To do this (assume that your agency/unit has Twitter and Facebook accounts already):

- Determine two audiences you need to reach, why they matter most, and what action(s) you want them to take.
- Come up with a message that will resonate with those audiences, and briefly explain why it will get their attention. (If your message won't fit in a single tweet, it's too long.)
- Come up with one day's worth of Facebook OR Twitter updates for your campaign. The exact number and content of updates is up to you; they should be designed for maximum spread with minimum annoyance to potential allies.
- Find one other social-media platform (that is, neither Facebook nor Twitter) you believe should also be used to spread the message, and briefly explain why you chose it.

Post your plan to the designated Learn@UW forum. (Hint: this assignment is based on a real-world social-media campaign to keep a public library from closure. Use the hotshot info-pro skills you've been learning to find out more.)

Units 8-11: SQL quizzes

You will be assigned a problem-set, often web-based (which you can self-correct). Paste your answers into the quiz space in Learn@UW. You may work on these with classmates, but each of you should individually paste answers into the quiz space.

Unit 12: Outreach plan for a digitized collection

Choose a *non-Wisconsin-related* (to keep things fair) collection from <http://uwdc.library.wisc.edu/collections>. Decide on three *specific* (as to demography, hobby/interest, etc) audiences you believe would enjoy this collection. Using the “Four P’s of Digital Project Outreach” at <http://www.lotfortynine.org/2013/08/four-ps-of-digital-project-outreach/> to spark ideas, make an outreach plan to get their attention and interest them in it! Post your plan to the designated Learn@UW forum.

Unit 13: Your digital stuff and its longevity

On the designated Learn@UW forum, please reflect on your digital trail. What do you have of your personal history and experience in digital form? Solely in digital form? How are you caring for it? What is its greatest vulnerability? Finally, name one action you will take in the next year to preserve your personal digital creations.

Unit 14: Failure assessment (NOT DROPPABLE)

You can’t learn in this course if you don’t fail. Fail early and often. If you don’t fail at technology, more than once, you’re not taking enough risks, you’re not getting far enough out of your comfort zone, and you’re not learning! So keep track of what goes wrong over the course of the semester: a new tool you can’t get your head around, a piece of software you didn’t use right, a blind alley on your final project, a stance you took during class discussion (or believed beforehand) that you now know is wrong.

Post a reflection to the designated Learn@UW forum about a specific technology-related failure, what you learned from it, and how your professional self-image has changed as a result. Discuss your risk-taking, the quality of your coping strategies and post-failure mitigation responses, and your creativity and resilience faced with failure. Assignment inspiration: <http://www.insidehighered.com/views/2012/08/21/essay-importance-teaching-failure>

Job advertisement and phone interview

Even if you do not consider yourself a technical person, you will certainly participate in hiring technical people during your career. Write a job advertisement such as you might find on an employer’s website or via a job-search site such as ina1j.com. Be sure the fictional employer in your ad is a recognizable type of information organization; you may adapt language from the postings you find as you see fit providing you do not slavishly copy an entire listing. First, turn in to the assignment dropbox on Learn@UW (single PDF preferred):

- links to or screenshots of at least three roughly-similar job postings
- a job ad, including a description of the employer and lists of job duties, required skills, and preferred skills
- three questions you would ask candidates in an interview to determine whether they are competent to do the job. Tailor the questions *specifically to the technology-related skills and duties of the position*; generic and non-technology-related questions will receive zero points. (“If you were a tree, what kind of tree would you be?” is not what I am looking for!)

You may describe and document a job whose focus is not explicitly on technology, but includes *significant* (at least 40% of the job) technology-specific responsibilities. You may also choose from the job titles listed below (you need not search the titles verbatim, nor do your supporting job postings need to use the titles verbatim):

- Data Curator (academic library, corporate environment, academic IT department)
- Digital Preservation Librarian/Digital Archivist (academic library, archives)
- Digital Repository Librarian/Archivist (academic library, corporate library, archives)
- Digitization Librarian/Archivist, Metadata Librarian/Archivist (academic library, archives, special library, public library)
- Distance-Education Librarian, Educational Technology Librarian (academic library, school library)
- Emerging Technologies Librarian/Archivist (any workplace type)
- E-Records Manager (corporate environment, government, academic library, archives)
- E-Resources or E-Serials Librarian/Archivist (academic library, corporate library, library consortium, public library, archives)
- ILS Librarian (public library, academic library, public or academic library consortium)

- Library/Archives Application Developer, Library/Archives Programmer (any workplace type, but be realistic!)
- Systems Librarian/Archivist, Tech Support Librarian/Archivist (any workplace type; do not write a laundry-list job description)
- Web Librarian/Archivist (any workplace type)

Off-limits, please: strictly-analog records managers, knowledge managers, scholarly-communications librarians, management positions.

Phone/Skype interview: I will pair you with a classmate. When you have turned in your job ad and questions, exchange them with your partner and arrange a time to telephone or Skype each other, allowing at least 20 minutes for each interview. (In-person interviews *are not acceptable!*) Before the interview, secretly write two *technology-related* questions that the employer in your partner's ad might ask. At least one of these questions should be a "scenario" question, in which you ask how they would respond to a problematic technical or sociotechnical scenario likely to occur on the job. Your goal for the questions is to find out whether your classmate can fulfill the technology requirements of the position! (It's fine if they can't yet, by the way; that's not what anybody is being graded on.)

Next, interview your partner, asking the three questions they wrote and the two you wrote. Finally, ask the question "do you have any questions for us?" (and make up an answer to whatever they ask) After the interview, email your partner (CCing me) the questions you invented based on their ad, your overall impression of the interview, and two constructive suggestions for improvement.

Grading breakdown (out of 15 final-grade points; note that you are *not* being graded on whether you could land the job):

Appropriate exemplars	1 point
Position description (including appropriateness of position to library described and appropriateness of required/desired skillsets to stated job duties)	4 points
Quality of interview questions	5 points (one per question)
Specificity and helpfulness of peer interview evaluation	4 points
Quality of interview response	1 point

Short webinar

Job candidates at nearly all academic libraries and many public libraries give a short (20-minute, often) talk to potential colleagues, usually on a topic specified by the library. Many librarians also present at conferences or for local patron audiences. Some job talks and conference presentations happen as online "webinars." To help accustom you to professional presentations online, you will prepare a short screencast using Jing (<http://www.techsmith.com/jing.html>).

Build a presentation in the slide-design tool of your choice, install Jing, and use it to create a narrated slideshow. Here's the zinger: *the maximum length of a Jing video is five (5) minutes*. Watch your Jing and reflect upon its quality and how you can improve your self-presentation. (Would you hire you?) Post the reflection and the URL of your Jing recording to the designated Learn@UW forum.

Your talk should usefully and *enjoyably* introduce a *technology-related standard* to your classmates. Controlled vocabularies and metadata standards are fine. If you're not sure about a standard you want to present on, ask me; I usually say yes.

Example standards include (but are emphatically *not* limited to):

- Any information organization, public libraries included: HTTP, RDF, FRBR, SKOS, BIBFRAME, any W₃C standard *except* HTML and CSS, any IEEE or IETF standard related to technologies information agencies use, MARC, RDA, Z39.50, SRU/SRW, schema.org microdata, .epub
- School libraries: IEEE LOM, SCORM, technology-literacy academic standards for Wisconsin or another state, or in the Common Core
- Academic libraries: digitization-related standards, digital-preservation standards, e-content licensing standards, COUNTER, SUSHI, OpenURL, TEI
- Archives and records management: EAD, TEI, EAC-CPF, OAIS model, DACS, ISAD(G), GARP

To understand why learning to present well is important, see <http://weblogs.swarthmore.edu/burke/2009/10/22/the-skilled-presentation-of-self-in-everyday-life/>.

Note well: I have watched hundreds of student presentations, in person and online. I have watched dozens of professional presentations and webinars, and given dozens myself (leaving teaching lectures aside). I'm a connoisseur. Seriously ask

yourself how you're going to impress me, and why you and your presentation will be memorable for me. To help you, I have posted a screencast on quality presentations to the tips-and-tricks module on Learn@UW.

Grading breakdown (out of 20 final grade points):

Explains standard clearly; doesn't overexplain	4 points
Professional slides (including slide attractiveness)	4 points
Professional self-presentation (including timing, enthusiasm, enjoyability of talk, management of computer and software)	4 points
Information correctness and clarity	4 points
Reflection accuracy and honesty	4 points

I will automatically deduct one point each for as many of the following common poor practices as your webinar contains:

- A "History of *your standard*!" slide (boring! not helpful!)
- Each misspelling, mis-capitalization, typo, or grammar error I see on your slides, no matter how small (I have seen people fail to land jobs over these)
- Reading word-for-word from a script that resembles an academic paper (this is deadly dull, and believe me, I know it when I hear it)
- Reading bullet points word-for-word, over and over again
- A weak, thoughtless, unpolished opening or closing (if both are weak, you lose two points)

COURSE PROJECT

The course project consists of a **PROJECT PLAN** and a **TECHNOLOGY IMPLEMENTATION**. These may be related (that is, the implementation may be an attempt to solve a project-plan problem), but they do not have to be. If your group is interested in a different project or technology, please feel free to have your project manager discuss it with me. Real-world projects or implementations are welcome, but not required; be aware that they are usually significantly more complicated. If you have questions about which options are best suited for particular career goals, please feel free to ask on Learn@UW.

Both project plan and technology implementation should be considered eportfolio-worthy projects; see the end of this syllabus for program-level outcomes they might apply to. If your technology implementation will not survive semester's end, make sure you take screenshots or collect other useful evidence about it! (Blogging the process through the semester works.)

Grading breakdown (out of 30 final-grade points):

Participation; results of 360 evaluation	6 points
Project plan (see below)	12 points
Technology implementation (see below)	12 points

Due dates and deliverables

Project-plan and tech-implementation options chosen	13 June
Project charter and schedule; acknowledgment email to PM	18 June
Demo	week of 28 July
Project plan and Krikelas application (to designated dropbox)	1 August
360 evaluations (to designated closed Learn@UW forum)	1 August

TECHNOLOGY IMPLEMENTATION

Do not choose a technology any group member is already expert in! (A minimal acquaintance is fine.) This defeats the entire point of the project; if I come to believe you have done this, your project will lose 5 final-grade points. If you can't find a technology to work with that someone in the group is not already expert in, see me. Your group will need to demo your technology to me informally outside of class during the final week of the semester at a mutually-agreeable time.

Your group is responsible for determining the technological requirements and associated costs for the implementation option you choose. Word to the wise: *do this quickly!* Past groups have been tripped up by not realizing the technology they'd need until quite late.

Your grade is based on your successful completion of the stipulations in the description of each implementation option. You will also be graded on the efficiency and elegance of your approach to solving the problem (with due allowance made for learning-on-the-job).

Please compose an application for the Krikelas Award based on your technology implementation (criteria and submission guidelines at <http://www.slis.wisc.edu/awards.htm>). I will choose a maximum of three applications for award consideration. LIS 644 projects have won this award in past years!

IMPLEMENTATION OPTIONS

1. Accession a digital archival collection. Locate a hard drive, CD-ROM collection, stack of floppies, and/or other set of born-digital or already-digitized materials (ask me if this is difficult; a group member's personal materials are fine). Using BitCurator (<http://www.bitcurator.net/>) and an archival-storage software package of your choice (try ICA-AtoM or Archivematica), image the collection, assess its fitness for preservation, and accession it, applying metadata as appropriate. You may use online demo installations of archival-storage software, but I encourage trying to install it yourself!
2. Build an on-the-web exhibit of born-digital/digitized materials with Omeka, Drupal, CollectiveAccess, ResCarta, or similar content-management, digital-library, or digital-archive system. *You may not use WordPress, nor may you use a readymade hosted service such as omeka.net.* You are expected to install on a webhost, configure, and populate the software, to use a theme other than the software's default (you do not have to build the theme from scratch, however), and to install and use at least one software mod or plugin. You do not have to purchase a domain for this project, though you will need a web host. At least three items per group member should be uploaded and described with appropriate metadata.
3. Build a Linux computer for patrons. Install and customize Linux (any variant) on a desktop or (preferably) laptop computer such that it could be used by public-library or archive reading-room patrons or a specific subgroup thereof (e.g. youth, genealogists). Consider legal obligations, security, privacy, use cases, and usability carefully! Do at least one

usability test with a friend, classmate, or family member not in your project group, and make at least one change to your system based on your findings.

4. Build a basic website for an organization of your choice that is based on weblog or content-management software (which you are expected to install from scratch on a webhost; *no WordPress.com or similar*) and includes at least three social-media tie-in features. Your website must validate as XHTML 1.0/1.1 or HTML5 per the W3C's validator (<http://validator.w3.org/>). Do at least one usability test with a friend, classmate, or family member not in your group (more encouraged!), and make at least one design or navigation change based on your findings.
5. Build a professional-quality screencast (between five and seven minutes long) advertising or training on a library or archive service. You are expected to use appropriately-licensed background music, do some video editing, have at least one screencast sequence and one live-video sequence, and have a credit roll.
6. Build at least one ebook per group member in .epub AND PDF formats, from public-domain or appropriately Creative-Commons-licensed plain-text books (try <http://projectgutenberg.org/>). Considered together, the books must include at least three of the following features: lists (ordered or unordered), footnotes, epigraphs, block quotations, images. HTML files must validate as XHTML 1.0 or 1.1 per the W3C's validator (<http://validator.w3.org/>); .epubs must validate per the IDPF's validator (<http://validator.idpf.org/>) or a local installation of EpubCheck.

PROJECT PLAN

Choose one of the problems below; write a project charter, schedule/timeline, and planning report (examples on Learn@UW) that will solve it. You will be graded on the feasibility, comprehensiveness, depth of understanding, and persuasiveness of your plan as presented. In your report, consider and plan for the following (as relevant and appropriate):

budget	software/hardware choices
staffing, staff buy-in, and sustainability	outreach and marketing
training, ease of use, usability	accountability and assessment
security and privacy	digital preservation

1. The small town of Minuscule has a favorite daughter who became a well-regarded artist. Minuscule Public Library (which also houses its one-room historical-society/archives) is in possession of a collection of letters, photos, and (small) realia related to the artist, and is interested in digitizing these materials for an online exhibit and including them in the Digital Public Library of America. Make a project plan to do this. Include an equipment-cost estimate, an estimate of person-hours required and how to achieve them, and a plan for the technology needed to mount the exhibit. Do not neglect file-format, metadata, and preservation considerations.
2. The library at Challenge College, a mid-sized private liberal-arts institution, is in the market for new library-management technology, as their current Integrated Library System is nearing end-of-life, and they are interested in "discovery layer" technology to supplement their current OPAC. Compose a whitepaper explaining the library's options and recommending a solution package. You may assume that the library has one full-time systems librarian; you must assume that she has other duties in addition to managing the ILS.
3. The American Condiment Archive is beginning to see donations of born-digital materials of various sorts, from manufacturer e-records to email to hard drives containing historical material to the online history of important figures. The archive isn't sure how best to handle all this. Select, and write a plan to implement, a software/hardware/cloud system for assessing, accessioning, preserving, and (as appropriate) providing web access to the materials. Do not neglect donor-agreement and cost considerations.
4. Mayuscule Public Library Consortium's public website and private intranet are a complete mess, a jumble of hand-coded HTML pages, many of whose content is obsolete. The site looks dated and ugly, and is completely unusable on smartphones and tablets. Only three people in the entire consortium can change content on the site, and they are hopelessly overworked. Make a plan (including timeline and cost estimates) for transitioning the intranet to a more sustainable and collaborative infrastructure with a responsive design. Do not neglect training and policy-development considerations.
5. Mayuscule Consortium also wants to implement a makerspace in its flagship urban library. Assume the existence of an open, windowed space on the first floor of the library. Offer a well-thought-out overall vision for the makerspace. Determine what audience(s) the makerspace will serve, what technologies and support resources it will offer, how it will be staffed (keep skills in mind), how it will be marketed, and how it will be assessed and (as necessary) changed.

PROJECT MANAGEMENT AND GROUP EVALUATION

Your group should select a Project Manager. The PM is responsible for all communications about the project to me: this will entail a project charter and schedule as well as end-of-semester project deliverables (Krikelas Award application, demo arrangements, project plan). The PM is also responsible for keeping the group “on time and under budget.” S/he may come to me at any time with concerns about group progress or group dynamics. Other group members with concerns should approach the PM first for resolution. PM and group are responsible for ensuring that neither the PM nor any other group member is overloaded. (The PM doing the entire group project is a failure, not a success!)

The group is also expected to use the online project-management tool Asana. Please add me to your Asana group; I will not interfere, but I will check in with your group at random times by looking in on the tool. You will lose 3 final-grade points if I discover your group is not using Asana.

During the last week of the semester, everyone must post a short “360 evaluation” of the other members of their group to a locked Learn@UW forum: a suggested *and justified* participation score for each group member, including the PM and yourself, out of 5 points. I will use this information to raise or lower individual project-participation grades as I see fit; only I will ever see the post.

SEMESTER CHARTER AND SCHEDULE

The Project Manager will submit a charter and schedule for the group’s semesterlong work on both project plan and technology implementation by the due date listed above. (You may use information in https://docs.google.com/document/d/1aCZaScfh1VsvkOH4ksZDh6exzAH7n8_mMrpnw4yINC1 to guide your charter, with the understanding that not all segments will make sense for a class project.) This charter should make clear which group members will be working on which segments of the project, and when results (final and intermediate) are due back to the PM. (N.b. this is a different document from the charter in your project plan! This charter governs your group’s work over the semester; the project-plan charter is about the work your fictional library or archives is doing.)

Risk management strategies should also be outlined: obvious contingencies to plan for include any group member’s sudden incapacity (dropping the class, illness, unexpected absence, etc) or an unexpected and time-consuming complexity popping up in the project, but any other threats to the project that occur to the group may of course also be considered.

Each group member should email the PM an acknowledgement that they have participated in the charter’s construction and are committed to the workload and due dates outlined in it. (No need to copy me, but the PM may forward me someone’s acknowledgement should a difficulty arise!)

ON GROUP PROJECTS

The idea that group projects are uniquely designed to torture library-school students is a snare and a delusion. All information professions include immense amounts of collaborative work, from local committees and task forces to involvement in national professional organizations and everything in between. None of the obstacles to working in groups – scheduling, free riders, personality conflicts – disappears when you receive your degree. If you are not good at working in a team, now is the time to learn!

Likewise, formal project management is a highly marketable skill. Even if you are not your group’s PM, learning everything you can about how to plan, charter, steer, and budget a project will serve you well, as will thoughtful reflection on how best to encourage fruitful teamwork among colleagues.

Course learning objective	Related to SLIS Program-Level Outcome(s)	Assignments providing evidence of Program-Level Outcome(s)	How mastery of Program-Level Outcome(s) will be assessed
Broad awareness of digital technologies in use in libraries and other information agencies.	3d. Students understand and use appropriate information technologies.	Final project bibliography. Short webinar. Position description assignment. SQL assignments. Learning-network assignment. Emerging-technology assignment.	Graded on quality and variety of information sources discovered and used.
Vocabulary and knowledge of conventions needed to communicate with technical staff.	3d. Students understand and use appropriate information technologies. 4b. Students demonstrate good oral and written communication skills.	Bug report assignment. Short webinar.	Graded on clarity and comprehensibility of expression, correctness of terminology use.
Ability to evaluate, plan for, select, and safely and securely work with digital technologies.	3d. Students understand and use appropriate information technologies.	Security reflection. Project plan.	Reflection graded on honesty and improvement plans; project plan graded on ability to discover and gauge alternatives, select those fit for purpose.
Awareness of the social and legal forces that impact digital technologies; controversies surrounding them; and the complex relationship between digital technologies and the future of information agencies.	1a. Students apply key concepts with respect to the relationship between power, knowledge, and information. 2a. Students evaluate and debate information policy and ethics applicable in local, national, or global contexts. 2b. Students apply core ethical principles to professional practice.	Learning-network assignment. Privacy-policy assignment. Short webinar assignment on a technology standard. Emerging-technology assignment.	Graded on depth of consideration, ethical quality of responses, breadth of awareness, willingness to experiment and make considered judgments.
Ability to contribute appreciably to a team working on a defined project; awareness of project-management tools and techniques.	4a. Students participate effectively as team members to solve problems.	Project plan, technology implementation.	360 peer evaluation feeds into final-project grade. For project managers, communication quality with instructor affects grade.
Sufficient courage, self-awareness, and skill for self-sufficiency in acquiring technical knowledge.	3d. Students understand and use appropriate information technologies.	Short webinar assignment, technology implementation.	See assignment rubrics.

Course learning objective	Related to SLIS Program-Level Outcome(s)	Assignments providing evidence of Program-Level Outcome(s)	How mastery of Program-Level Outcome(s) will be assessed
Development of ethical and principled approaches to technology adoption and education.	<p>1a. Students apply key concepts with respect to the relationship between power, knowledge, and information.</p> <p>2b. Students apply core ethical principles to professional practice.</p>	Project plan, technology implementation, privacy-policy assignment.	See assignment rubric, particularly considerations of audience, intellectual-property rights, privacy, and security.
Ability to contribute appreciably to a team working on a defined project; awareness of project-management tools and techniques.	4d. Students demonstrate innovation and skills necessary for leadership.	Project plan.	360 peer evaluation feeds into final-project grade. For project managers, communication quality with instructor affects grade.