# Information Technologies

**Section**: INFO 654-04  
**Credits**: 3  
**Day and Time**: Wednesday 06:30PM - 09:20PM Eastern Time  
**Location**: Manhattan - W14, Room 606

**Instructor:**

* Josh Hadro (please call me “Josh”, pronouns are he/him/his)
  + josh.hadro at gmail dot com
  + (917) 428-4152

**Drop-in hours:** Before class, and by appointment as needed

**Tech Tutor(s) for Fall 2022:**  
Email: [techtuto@pratt.edu](mailto:techtuto@pratt.edu)

**Course Collaborative Notes**  
<https://etherpad.wikimedia.org/p/prattsi654fa22-1>  
[increment last digit for subsequent class numbers, e.g. -2 for class session 2, -6 for class session 6, etc.]  
N.B. These notes are technically public, and will persist as long as Wikimedia maintains the Etherpad software.

**Course WordPress site:**  
<https://lis654fa22.wordpress.com/> (invitations and logins to come)

**Assignments** <https://github.com/hadro/info654fa22/tree/master/assignments>

**Course hashtag** [#INFO654](https://twitter.com/search?f=tweets&q=%23info654) (this is totally optional, and not very high traffic!)

## Course Description

This course introduces the fundamental concepts of computing and networking, with an emphasis on the role these technologies play in creating, manipulating, storing, and accessing information. Topics essential to the work done by information professionals will be highlighted: web technologies, database concepts, markup languages, data management, and design and accessibility. Students will conduct frequent hands-on activities to acquire skills that are immediately applicable to working with information technologies. The course will explore recent trends in technology within information organizations, preparing students for their roles as information professionals and providing the foundation for future technology-related coursework.

**The goals of this course are to:**

* Introduce fundamental concepts of information technology infrastructure, internet, and web design principles
* Develop a general understanding of the information technologies used for creating, managing, storing, and accessing information
* Understand contemporary issues and trends in the development and changes of information technologies and their impact on information organizations

## Student Learning Outcomes

**Upon successful completion of this course, a student will be able to:**

* Understand, use, discuss, and be able to help others with core computing technologies, including hardware, operating systems, software applications, Internet/web technologies and assistive technologies.
* Evaluate different technologies to determine the most appropriate infrastructure, systems, and tools needed to solve a problem or achieve a goal.
* Be able to use up-to-date web technologies to edit and maintain a substantial website.
* Ability to use critical approaches when evaluating information technologies, including the evaluation of technology-related current events.

**NOTES:**

* Aspects of this course are subject to change at the discretion of the instructor. Any modifications will be announced and documented in a timely fashion.
* This is not necessarily a skills class. Although we will study and use specific technologies, such as HTML, CSS and other related tools, the focus of the course will be on the role of these technologies in the information professions, not necessarily on full expertise in the skills themselves.

1. **Prerequisites**

This is a graduate-level technology course. Although there are no academic prerequisites, prior to enrolling in SI, students must be proficient in the skills listed in “The SI Student Technology Expectations” adopted and distributed to students since July 2006 (see attached at end of syllabus). The course will move along under this assumption and SI faculty will provide no remedial assistance during or outside of class.

1. **Technology Tutoring**

Pratt SI offers technology tutorial assistance to students taking 654 and other courses. Assistance with development components of assignments should be directed to the tutor. The tutoring service is managed through the SI office and is available 20 hours a week either by walk-in or appointment. For information on hours of operation, contact the SI office or see above.

## Information Technologies Course Waiver

Students with significant incoming technology experience may apply to waive taking LIS/INFO 654 Information Technologies. First, you should review the syllabus to assess your existing familiarity with the topics covered. Then, if you wish to apply to waive the course, send the following to si@pratt.edu for review:

* A few sentences describing your past/current technology work and why you would like to waive the course
* Your resume
* A portfolio (or other demonstration of your work), if you have one

If you are approved for the course waiver, you will be notified within one week and a letter to that effect will be added to your file.

## Class Schedule

### August 31 — [Introduction and Information Technology Basics](../slides/class_1.html)

In class: We will meet each other, learn about the class, and set up WordPress blog profiles!

Readings with an \* can sometimes be behind a paywall. A copy has been saved in the /readings folder in the github repository.

A list of slides will become available [here](../slides/index.html).

### September 07 — [The Internet, Networks, and Protocols](../slides/class_2.html)

**Due: Technology and Service Inspiration Post 1**

Readings:

* \* 1945. Vannevar Bush. [As We May Think](http://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/?single_page=true) (35min)
* c.1997. Barry M. Leiner, Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts, Stephen Wolff. [A Brief History of the Internet](http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet) (40min)
* c.2000. W3C [A Little History of the World Wide Web](http://www.w3.org/History.html) (7min)
* 2019-01-14. Amy Dickens. [Web Standards: The What, The Why, And The How](https://www.smashingmagazine.com/2019/01/web-standards-guide/) (29min)
* \* 2015-12-06. Ingrid Burrington. [The Environmental Toll of a Netflix Binge](https://www.theatlantic.com/technology/archive/2015/12/there-are-no-clean-clouds/420744/) (8min)
* 2016-08-11. Sanna Mustelin. [Women in Programming: Erasure and Visibility](https://recompilermag.com/issues/issue-4/women-in-programming-erasure-and-visibility/) (7min)
* 2017-03-17. Amy Wibowo. [A Career Retrospective—10 years working in tech](https://medium.com/@sailorhg/a-career-retrospective-10-years-working-in-tech-ea0bf2a29696) (17min)

### September 14 — [Web Design Basics: HTML (LAB)](../slides/class_3.html)

**Due: Reflection Post 1**

Readings:

* 2018-09-01. Julia Evans. [How to teach yourself hard things](https://jvns.ca/blog/2018/09/01/learning-skills-you-can-practice/) (8min)
* c.1998. Addison Wesley Longman. [A history of HTML](http://www.w3.org/People/Raggett/book4/ch02.html) (32min)
* 2010-05-04. Jeremy Keith. [A Brief History of Markup](http://www.alistapart.com/articles/a-brief-history-of-markup/) (8min)
* 2017-02-13. J. M. Porup. [A battle rages for the future of the Web](https://arstechnica.co.uk/information-technology/2017/02/future-of-the-www-timbl-drm/) (16min)
* Sir Tim Berners-Lee. [The next web](https://www.ted.com/talks/tim_berners_lee_the_next_web?language=en) (video, 16 minutes)
* 2021-09-14. Tom McGrath. [Can MIT’s Tim Berners-Lee Save the Web?](https://www.bostonmagazine.com/news/2021/09/14/tim-berners-lee/) (22 min)

Optional, web history:

\* - 2021-06-30. Jonathan Zittrain. [The Internet Is Rotting](https://www.theatlantic.com/technology/archive/2021/06/the-internet-is-a-collective-hallucination/619320/)  
\* - 2014-11-20. Paul Ford. [The Group That Rules The Web](http://www.newyorker.com/tech/elements/group-rules-web) (15 min)  
- 2021-08-26. Elise Blanchard. [Why are hyperlinks blue?](https://blog.mozilla.org/en/internet-culture/deep-dives/why-are-hyperlinks-blue/)

Technical resources:

* [Mozilla web docs: Introduction to HTML](https://developer.mozilla.org/en-US/docs/Learn/HTML/Introduction_to_HTML)

### September 21 — [Web Design Basics: CSS (LAB)](../slides/class_4.html)

Readings:

* 2015-06-11. Paul Ford. [What is code?](http://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/) (**142 min**, plus playtime [not a typo!])
* c.1999. Håkon Wium Lie and Bert Bos. Cascading Style Sheets, designing for the Web, Chapter 20: [The CSS Saga](http://www.w3.org/Style/LieBos2e/history/Overview.html) (12 min)
* [Code.org: Web Development: Intro to CSS](https://www.youtube.com/watch?v=EP9QMdoXvXE) (video) (3.5 min)
* 2019-10-11. Rachel Andrews. [The W3C at Twenty-Five](https://www.smashingmagazine.com/2019/10/happy-birthday-w3c/) (12 min)

Technical resources:

* [CSS Basics](http://www.cssbasics.com/)
* Current. Mozilla. [Introduction to CSS](https://developer.mozilla.org/en-US/docs/Learn/CSS/Introduction_to_CSS)
* Current. Mozilla. [CSS Selectors](https://developer.mozilla.org/en-US/docs/Learn/CSS/Introduction_to_CSS/Selectors)

Bonus:

* [How to Center in CSS](http://howtocenterincss.com/) (Because it will definitely come up!)
* Jennifer Dewalt. [180 websites in 180 days](https://jenniferdewalt.com/) ([Background talk on this project](https://www.youtube.com/watch?v=QaSbL4sRff8))

Optional:

* 2022-03-27. Miriam Posner. [Agile and the Long Crisis of Software](https://logicmag.io/clouds/agile-and-the-long-crisis-of-software/)

### September 28 — [Digitization, File Formats and Web Design Wrap-up](../slides/class_5.html)

**Due: Technology and Service Inspiration Post 2**

Readings:

* \* 2015-01-26. Jill Lepore. [The Cobweb: Can the Internet be archived](http://www.newyorker.com/magazine/2015/01/26/cobweb) (31 min)
* 2021-06-22. Dorothy Berry. [The House Archives Built](https://www.uproot.space/features/the-house-archives-built) (15 min)
* 2018-07-31. Emma Stanford (Bodleian Libraries). [Booksquashing](https://medium.com/@bodleian/booksquashing-1d3fa800c253) (9 min)
* 2019-02-06. Allison Whalen. [The Expanding Digitization Universe](https://www.library.ucla.edu/blog/preservation/2019/02/06/the-expanding-digitization-universe) (11 min)
* 2016-11-02. Sid Bala. [H.264 is Magic](https://sidbala.com/h-264-is-magic/) ([alt link](https://web.archive.org/web/20190628062616/https://sidbala.com/h-264-is-magic/))
* 2019-05-01. Omar Shehata. [Unraveling the JPEG](https://parametric.press/issue-01/unraveling-the-jpeg/) (20 min, plus playtime)

Resources:

* [Federal Agencies Digitization Guidelines Initiative (FADGI)](http://www.digitizationguidelines.gov/guidelines/)
* Mailchimp. [Welcome to the Mailchimp Content Style Guide](https://styleguide.mailchimp.com/)

### October 05 — [Accessibility, Usability, and Universal Design](../slides/class_6.html)

**Due: Reflection Post 2**

Readings:

* 2017-09-20. Ashley Blewer. [Accessibility and Archivability](https://bits.ashleyblewer.com/blog/2017/09/20/accessibility-and-archivability/) (6 min)
  1. ADA.gov. [Guidance on Web Accessibility and the ADA](https://beta.ada.gov/resources/web-guidance/) (10 minutes)
* 2013-08-27. Aarron Walter. [Connected UX](http://alistapart.com/article/connected-ux) (9 min)
* [Web Style Guide- Chapter 2*:* Universal Usability](http://www.webstyleguide.com/wsg3/2-universal-usability/index.html) (note this is across several pages)
* 2009-10-06. Dana Chisnell. [Usability Testing Demystified](https://alistapart.com/article/usability-testing-demystified) (8 min)
* 2016-05-08. Sina Bahram. [How I Code and Use a Computer at 1,000 WPM!!](https://youtu.be/G1r55efei5c) (video, 13 minutes)
* 2017-09. Moriel Schottlender. [Wait, it does ??tahW: How supporting Right-to-Left can expose your bad UX](https://www.youtube.com/watch?v=xpumLsaAWGw) (video, 28 minutes)
* 2014-07-31. Anne Gibson. [An Alphabet of Accessibility Issues](https://the-pastry-box-project.net/anne-gibson/2014-July-31) (7 min)
* c.2017. Cynthia Ng. [A Practical Guide to Improving Web Accessibility](https://quod.lib.umich.edu/w/weave/12535642.0001.701?view=text;rgn=main) (20 min)

Optional Fun:

* 2007-08. Stephen Few. [Save the Pies for Dessert](https://www.perceptualedge.com/articles/visual_business_intelligence/save_the_pies_for_dessert.pdf)
* 2018-05-09. Jason Clauss. [The Five Stages of Grief Over the Death of Pie Charts](https://uxplanet.org/the-five-stages-of-grief-over-the-death-of-pie-charts-effb54894fee)
* 2017-06-04. Fabricio Teixeira. [The worst volume control UI in the world](https://uxdesign.cc/the-worst-volume-control-ui-in-the-world-60713dc86950)
* 2022-06-17. Aaron Straup Cope. [have you now or have you ever](https://aaronland.info/weblog/2022/06/17/expectations/#usf)

Resources:

* [usability.gov](https://www.usability.gov/)
* <http://www.libsuccess.org/Website_Design#Accessibility>
* [The Difference Between Responsive and Adaptive Design](https://css-tricks.com/the-difference-between-responsive-and-adaptive-design/)
* [9 GIFs That Explain Responsive Design Brilliantly](https://www.fastcodesign.com/3038367/9-gifs-that-explain-responsive-design-brilliantly-2)
* [User-Centered Design for Complex Digital Objects](https://drive.google.com/file/d/0Byr1_3Ruh_oYYkZwWF9yTTlSb2M/view)

### October 12 — [Structured Data, XML, and JSON (LAB)](../slides/class_7.html)

Readings:

* Eric Lease Morgan. [Getting started with XML: A workshop](http://infomotions.com/musings/getting-started/getting-started.pdf) (Read Part I: “General introduction to XML”) (4 min)
* 2020-02-13. Text Encoding Initiative. [A Gentle Introduction to XML](http://www.tei-c.org/release/doc/tei-p5-doc/en/html/SG.html) (60 min)
* 2005-09. Ronald Bourret. [XML and Databases](http://www.rpbourret.com/xml/XMLAndDatabases.htm) (Sections 1-4, rest is optional) (13 min)
* 2011-03-24. Matt Doyle. [JSON Basics: What You Need to Know](http://www.elated.com/articles/json-basics/) (don’t worry about the JavaScript and PHP parts, unless you’re interested!) (full text: 19 min)
* 2015-11-16. Yegor Bugayenko. [Stop Comparing JSON and XML](https://www.yegor256.com/2015/11/16/json-vs-xml.html) (5 min)
* 2018-03-28. Christine Taylor. [Structured vs. Unstructured Data](https://www.datamation.com/big-data/structured-vs-unstructured-data.html) (9 min)
* 2014-01-17. Anthony Cocciolo. [Unix Commands and Batch Processing for the Reluctant Librarian or Archivist](https://journal.code4lib.org/articles/9158) (18 min)

### October 19 — [APIs and Linked Data (LAB)](../slides/class_8.html)

**Due: Personal homepage**

Readings:

* 2015-02-05. Dorothea Salo. [MARC, Linked Data, and Human-Computer Asymmetry](https://dsalo.info/marc-linked-data-and-human-computer-asymmetry/) (7min)
* 2015-02-19. Matthew Hughes. [What Is An API & What Are They Good For?](http://www.makeuseof.com/tag/api-good-technology-explained/) (6 min)
* 2020-12-13 Raivat Shah. [Introduction to REST APIs: Get started with RESTful APIs using a real-world example](https://towardsdatascience.com/introduction-to-rest-apis-90b5d9676004) (5 min)
* Current. White House. [WhiteHouse api-standards](https://github.com/WhiteHouse/api-standards)
* 2012-06-16. Manu Sporny. [What is Linked Data?](http://www.youtube.com/watch?v=4x_xzT5eF5Q) (video, 12 minutes)
* 2017-05-07. Jonathan Blaney. [Introduction to the Principles of Linked Open Data](https://programminghistorian.org/en/lessons/intro-to-linked-data) (25 minutes)
* 2017-10-19. Mia Ridge. [Unlocking Potential: Where Next for Open Cultural Data in Museums?](http://museum-id.com/unlocking-potential-next-open-cultural-data-museums-mia-ridge/) (7 min)

Optional:

* 2016-03-20. Ruth Kitchin Tillman. [An Introduction to RDF for Librarians (of a Metadata Bent)](http://ruthtillman.com/introduction-rdf-librarians-metadata/) (24 min)

### October 26 — [Technology Law and Ethics](../slides/class_9.html)

Readings:

* 2019-02-20. Kate Dohe. [Care, Code, and Digital Libraries: Embracing Critical Practice in Digital Library Communities](http://inthelibrarywiththeleadpipe.org/2019/digital-libraries-critical-practice-in-communities/) (32 min)
* 2018-12-14. Martin Tisne. [It’s time for a Bill of Data Rights](https://www.technologyreview.com/s/612588/its-time-for-a-bill-of-data-rights/) (13 min)
* Spring 2005. Edward M. Corrado. [The Importance of Open Access, Open Source, and Open Standards for Libraries](http://www.istl.org/05-spring/article2.html) (12 min)
* 2011-09-27. Meredith Farkas. [Open Source, Open Mind](https://americanlibrariesmagazine.org/2011/09/27/open-source-open-mind/) (3 min)
* 2019-10-06. Christie Koehler. [Open Source Licenses and the Ethical Use of Software](https://subfictional.com/open-source-licenses-and-the-ethical-use-of-software/) (30 min)
* [Roads and Bridges: The Unseen Labor Behind Our Digital Infrastructure](https://www.fordfoundation.org/about/library/reports-and-studies/roads-and-bridges-the-unseen-labor-behind-our-digital-infrastructure) (Read through “How The Current System Works” pg 37-57) (12 min)

Resources:

* Current. University of Minnesota. [Copyright Basics](https://www.lib.umn.edu/services/copyright/basics)
* [Code of Best Practices in Fair Use for Software Preservation](https://www.arl.org/wp-content/uploads/2018/09/2019.2.28-software-preservation-code-revised.pdf)
* [American Alliance of Museums: Ethics, Standards, and Professional Practices](https://www.aam-us.org/programs/ethics-standards-and-professional-practices/ethics/)
* [ALA Code of Ethics](http://www.ala.org/tools/ethics)
* [Mapping open source in museums](https://geealbers.github.io/mapping-open-source/network/)

### November 02 — [Data analysis and visualization, and privacy/security/content moderation](../slides/class_10.html)

**Due: Technology and Service Inspiration Post 3**

Readings:

* 2017-09-18. [Intro To Data Analysis For Everyone! Part 1](https://towardsdatascience.com/intro-to-data-analysis-for-everyone-part-1-ff252c3a38b5) (10 min + v20 min video)
* 2019-06-02. Lindsey Rogers Cook. [How We Helped Our Reporters Learn to Love Spreadsheets](https://open.nytimes.com/how-we-helped-our-reporters-learn-to-love-spreadsheets-adc43a93b919) (5 min)
* Data + Design: A simple introduction to preparing and visualizing information: Read Chapters [1](https://trinachi.github.io/data-design-builds/ch01.html)-[2](https://trinachi.github.io/data-design-builds/ch02.html) and [12](https://trinachi.github.io/data-design-builds/ch12.html)-[13](https://trinachi.github.io/data-design-builds/ch13.html)
* 2018-10-17. Nathan Yau. [Ask the Question, Visualize the Answer](https://flowingdata.com/2018/10/17/ask-the-question-visualize-the-answer/) (6 min)
* 2019-02. Kashmir Hill. [Goodbye Big Five](https://gizmodo.com/c/goodbye-big-five) (Either read text or watch videos)
* 2019-11-05. Amelia Acker. [Data Craft: The Manipulation of Social Media Metadata](https://datasociety.net/output/data-craft/) (Download PDF – 15 min)
* Current. [Library Freedom Project](https://libraryfreedomproject.org/) (timeless)
* 2018-04. Data Privacy Project. [A zine about privacy at the library](https://dataprivacyproject.org/wp-content/uploads/2018/04/zine_for_printer_printing_order.pdf) [PDF]

Resources:

* 2020-09-22. Surya Mattu. [Blacklight: A Real-Time Website Privacy Inspector](https://themarkup.org/blacklight)
* Current. Mozilla. [Data Detox Kit](https://datadetoxkit.org/en/home)
* [The Quartz guide to bad data](https://github.com/Quartz/bad-data-guide)

### November 09 — Blank Technology Canvas Pitch Presentations Feedback

**Due: Blank Technology Canvas Pitch Presentations**

### November 16 — Blank Technology Canvas Pitch Presentations Feedback

**Due: Reflection Post 3**

### November 23 — NO CLASS!

### November 30 — [Content Management, Digital Asset Management, Digital Preservation](../slides/class_11.html)

Readings:

* c.2016. Karen Coyle. [Catalogs and Context](http://kcoyle.net/catcon.html) (39 min)
* Current. Digital Preservation Coalition. [Digital Preservation Handbook](https://dpconline.org/handbook) (Read “Introduction” “Technical solutions and tools” [you can skip over the “Resources” sections in each])
* 2017-12-15. Lauren J. Young. [ScienceFriday: Ghost in the Reels](https://apps.sciencefriday.com/data/ghosts.html) (13 min)
* 2019-02-07. David Rosenthal. [Cloud For Preservation](https://blog.dshr.org/2019/02/cloud-for-preservation.html) (34 min)

References:

* [A high-level overview of the differences between CMSs](https://docs.google.com/spreadsheets/d/1cXOug3qM0pNNeD_wssiVEv9c0W1Y5I1VDTnSPTk7fb4/edit?ts=5ca9a929#gid=0)
* 2013-08. Library of Congress. [Analysis of Current Digital Preservation Policies: Archives, Libraries and Museums](https://blogs.loc.gov/digitalpreservation/2013/08/analysis-of-current-digital-preservation-policies-archives-libraries-and-museums/)

### December 07 — [Databases and Structured Queries (LAB)](../slides/class_14.html)

Readings:

* 2008-10-23. Ryan Deschamps. [What is a Database, really? Data Storage for Librarians](http://otherlibrarian.wordpress.com/2008/10/23/what-is-a-database-really-data-storage-for-librarians/) (12 min)
* Current. Wikiversity. [Introduction to Relational Databases](https://en.wikiversity.org/wiki/Relational_Databases/Introduction) (10 min)
* c.2009. Randy Jay Yarger, George Reese, and Tim King. [Chapter 1. Introduction to Relational Databases](http://docstore.mik.ua/orelly/linux/sql/ch01_01.htm) (10 min)
* 2013-11-07. Noah Veltman. [SQL: The Prequel (Excel vs. Databases)](https://schoolofdata.org/2013/11/07/sql-databases-vs-excel/) (13 min)
* 2015-09-12. Ruth Kitchin Tillman. [An Introduction to SQL for Librarians](http://ruthtillman.com/an-introduction-to-sql-for-librarians/) (12 min)
* 2015-06-27. qntm. [Obergefell v. Hodges: the database engineering perspective](https://qntm.org/support) (8 min)
* Sandboxes! Have fun and play around with these, you can’t break them!:
  + Australian Dogs SQL Sandbox: https://australian-dogs.now.sh/australian-dogs-3ba9628?sql=select+\*+from+%5BAdelaide-City-Council-dog-registrations-2013%5D+where+%5BAnimal+name%5D+like+%22%25Ma%25%22
  + Bechdel Test movie data from FiveThirtyEight: https://fivethirtyeight.datasettes.com/fivethirtyeight?sql=select+\*+from+%5Bbechdel%2Fmovies%5D
  + All FiveThirtyEight datasets: https://fivethirtyeight.datasettes.com/fivethirtyeight
  + NYC Cultural Institutions: https://nyc-cultural-institutions.now.sh/csv-data-edb5063
  + More datasets here: https://github.com/simonw/datasette/wiki/Datasettes

Extra reading (useful to try in conjunction with reading directly above):

* [Introduction to SQL (Interactive Tutorial)](http://sqlzoo.net/wiki/SQL_Tutorial)

### December 14 — [Information Technology of the Future, and Wrap-up](../slides/class_15.html)

**Due: Blank Technology Canvas Final Report Site**

Readings:

* 2014-09. Keir Winesmith and Flora Grant. [How Do Institutional Philosophies Manifest in Online Collections?](https://www.sfmoma.org/read/how-do-institutional-philosophies-manifest-online-collections/) (16 min)
* 2013-08. [Can’t Buy Us Love: The Declining Importance of Library Books and the Rising Importance of Special Collections](https://sr.ithaka.org/wp-content/uploads/2013/08/SR_BriefingPaper_Anderson.pdf) [PDF]
* 2017-05-10. Beatrice Martini. [Decolonizing technology: A reading list](https://beatricemartini.it/blog/decolonizing-technology-reading-list/) (8 min)
* 2014-05-13. Jason Scott. [The Robot Army of Good Enough](http://ascii.textfiles.com/archives/4285) (8 min)
* 2017-08-10. Jennifer Howard. [What Happened to Google’s Effort to Scan Millions of University Library Books?](https://www.edsurge.com/news/2017-08-10-what-happened-to-google-s-effort-to-scan-millions-of-university-library-books) (9 min)
* 2018-10-16. Melanie Ehrenkranz. [How Archivists Could Stop Deepfakes From Rewriting History](https://gizmodo.com/how-archivists-could-stop-deepfakes-from-rewriting-hist-1829666009/amp) (8 min)
* c.2019 or 2020. Mozilla. [Internet Health Report](https://foundation.mozilla.org/en/internet-health-report/)
* 2018-06-15. MoreThanCode. [#MoreThanCode: Practitioners reimagine the landscape of technology for justice and equity (executive summary)](https://morethancode.cc/2018/06/15/morethancode-executive-summary.html)

## Textbooks, Readings and Materials

There is no textbook for this class. Reading and materials are indicated in the above weekly schedule.

There are no texts that are required purchases for this course. All required readings are provided directly or will be available online. It is expected that you will complete all assigned readings and tutorials **before** the class session. Links to all assigned materials will be available in the syllabus and posted on Github.

## Suggested Texts, Sites, and Lists

Given that technology develops at such a rapid pace, online outlets are more suited to giving the background that will give students a useful understanding of current issues in the information fields. It is highly recommended that students follow at least some of the sites and lists provided below with some regularity.

**Library-related outlets featuring significant technology coverage:**

<http://planet.code4lib.org/>  
<http://code4lib.org/>  
<http://weaveux.org/>  
<http://hacklibraryschool.com/>  
<http://www.inthelibrarywiththeleadpipe.org/>  
<http://scholarlykitchen.sspnet.org/>  
<http://www.dlib.org/>  
<http://firstmonday.org/>

**Email lists and Newsletters:**

* Humane Ingenuity (Dan Cohen, Northeastern University Library): <https://buttondown.email/dancohen>
* Soulful Computing by David Nuñez, MIT Museum: <https://buttondown.email/davidnunez/>
* “Dig It!”, a newsletter featuring digital trends and practices from museums & cultural institutions. <https://embracedigital.substack.com/p/coming-soon>
* Current Cites: <http://currentcites.org/>

**Also recommended more general publications:**

* <http://arstechnica.com/>
* <http://pewinternet.org/>
* <http://www.theverge.com/>
* <http://www.theatlantic.com/technology/>
* <http://www.nytimes.com/pages/technology/>
* <http://www.newyorker.com/magazine/annals-of-technology>
* <http://chronicle.com/section/Technology/30/>
* <http://www.insidehighered.com/news/focus/technology>
* <https://news.ycombinator.com/>
* Twitter

## Coding tutorials and sandboxes:

* [Getting started with the Command Line (in roughly 20-50 minutes)](https://github.com/miriamposner/unix/blob/main/getting_started_with_commandline.md)[Highly recommended, from a fellow lIS professor Miriam Posner]
* [Codecademy](https://www.codecademy.com)
* [Programming Historian](https://programminghistorian.org/lessons/)
* [Automate the Boring Stuff with Python](https://automatetheboringstuff.com/2e/)
* [LinkedIn Learning](https://www.linkedin.com/learning-login/go/nypl) [Available to you for [free with an NYPL card](https://www.nypl.org/collections/articles-databases/lyndacom)!]
* [Glitch.com](https://glitch.com/)

## Projects, Papers, and Assignments

All graded assignments must be added to the class WordPress blog or emailed to the instruction before class on the due date (unless otherwise noted). If there is a medical or personal reason for absences or late homework assignments, please present your excuse in advance and in writing, via email. Unexcused late assignments will receive a reduced grade, and may not receive feedback.

1. Reflection Posts (20%)
2. Technology and Service Inspiration Posts (10%)
3. Personal Homepage (25%)
4. Blank Technology Canvas Presentation (10%)
5. Blank Technology Canvas Report (25%)
6. News of the Week (10%)

**Technology and Service Inspiration Posts (10%)**

Students will contribute three brief (150 word minimum) posts to the class blog over the course of the semester. The posts should include: an excerpted portion, quote, or embed (with Fair Use criteria in mind; see Fair Use appendix below) and direct link to the source; and a brief summary or explanation of the connection of the technology inspiration source to the provision of service in an information resource setting. A separate assignment sheet with specific blog post and format criteria will be distributed the first day of class.

**Reflection Posts (25%)**

Students will contribute three significant posts to the class blog over the course of the semester. Initial topic suggestions and a non-exhaustive list of potential sources will be distributed the first day of class. The posts should be a minimum of 700 words in length, and must include: an excerpted portion, quote, or embed (with Fair Use criteria in mind see Fair Use appendix below) and direct link to the source; a brief summary or explanation of the material with comment on how the material was discovered; and the student's reflection, drawing connections and parallels to material covered in class and/or ongoing concerns to the library and archives communities. A separate assignment sheet with specific blog post and format criteria will be distributed the first day of class.

**Personal Homepage (20%)**

Using skills, tools, and technique introduced in class, students will create a linked series of web documents featuring biographical information, images, and outbound links relevant to student interests. Required elements will include: a home page, three additional linked pages, an external style sheet, hidden commented code in both HTML and CSS documenting sections and style choices, at least one web-optimized image on each page, inclusions of alt tags for accessibility, and at least one HTML table element. The personal homepage should demonstrate the cumulative knowledge of coding and design skills covered in the course, as well as the integration of design considerations from other sites and examples discussed in class. Students will host all files on the server space provided by the Pratt Institute. A separate assignment sheet with explicit requirements will be distributed in class.

**Blank Technology Canvas Pitch Presentation (10%)**

The ability to pitch ideas effectively to a group and to integrate feedback are essential skills in any information profession. As a precursor to the Blank Technology Canvas Proposal Report, students will prepare a roughly five-minute in-class presentation, covering a proposed vision for the space, their inspirations, and other relevant elements supporting their proposal. Students will have the option of using PowerPoint, Prezi (free education version), or other tools (upon approval) to create the presentation. A separate assignment sheet will be distributed in class.

**Blank Technology Canvas Proposal Site (25%)**

For this exercise, students will draft a proposal to develop a large information service space for a user demographic of their choice. Students will work under the assumption that a parent organization has set aside space dedicated for this purpose, and have already secured funding to award to a meritorious proposal. Basic IT and broadband infrastructure are a given, but further potential uses for the space will stem from the student’s vision. The proposal should take into account the specific needs of a particular target user demographic, and will also require that students consider potential partner organizations as well as areas of potential expansion. Likewise, students will include with the proposal examples of sites – real or conceptual – that served as inspiration. Students will receive feedback on their proposed ideas in class before embarking on the final proposal report. A separate assignment sheet detailing specifications and requirements will be distributed in class.

**News of the Week (5%)**

A huge part of understanding technology is simply the ability to pay attention to new developments and connect them with relevant contexts including prior events. In order to cultivate habits of actively paying attention to technology news and connecting new stories to past contexts, students will be asked to be prepared to share one technology-related news article at the beginning of each class session and very briefly articulate the relevance of the article they’ve chosen.

## Pratt’s Grading Scale

* Superior work: A 4.0 (96-100) A- 3.7 (90-95)
* Very good work: B+ 3.3 (87-89) B 3.0 (83-86) B-2.7 (80-82)
* Marginally satisfactory: C+ 2.3 (77-79) C 2.0 (73-76)
* Failed: F 0.0 (0-72)

## Portfolio

Work completed for this course may be included in your portfolio. For more information on each program’s portfolio requirements, please visit the program’s respective webpage:

* MS Library & Information Science: Portfolio - <http://bit.ly/prattmslisportfolio>
* MS Information Experience Design: Portfolio - <http://bit.ly/prattmsixdportfolio>
* MS Data Analytics and Visualization: Portfolio - <http://bit.ly/prattmsdavportfolio>
* MS Museums and Digital Culture: Portfolio - <http://bit.ly/prattmsmdcportfolio>

You are encouraged to meet with your advisor about including projects in your portfolio.

## Attendance/Participation:

Attendance in class is the most valuable way to learn both from the instructor and from your peers. Of course, absences are at times unavoidable. A student who must be absent from a class meeting still has certain responsibilities:

* To inform the instructor in advance, or if advance notice is not possible given the circumstances, as soon after the absence as possible to arrange for delivery to the instructor of any assignment due at the class meeting.
* To obtain notes, handouts, etc. from a classmate (in anticipation of this need, each student is advised to exchange contact information with one or two others in the class).
* Unexcused absences will necessarily result in diminished participation grade.
* Active participation includes, but is not limited to the following:
  + Being involved in class discussions, whether via voice or via chat or other class mechanism or technology.
  + Asking relevant questions, debating, or challenging points.
  + Suggesting new ways of looking at things.
  + Volunteering to take notes, organizing activities and helping other students.

## Written Work:

Students should always keep copies of all assignments that are turned in. In the case of a piece of written work becoming lost, regardless of fault, it is the responsibility of the student to provide a second copy.

## Academic Integrity Code

Academic integrity at Pratt means using your own and original ideas in creating academic work. It also means that if you use the ideas or influence of others in your work, you must acknowledge them. For more information on Pratt’s Academic Integrity Standards, please visit http://bit.ly/prattacademicintegrity

## Students with Disabilities and Accessibility

Pratt Institute is committed to the full inclusion of all students. If you are a student with a disability and require accommodations, please contact the Learning/Access Center (L/AC) at LAC@pratt.edu to schedule an appointment to discuss these accommodations. Students with disabilities who have already registered with the L/AC are encouraged to speak to the professor about accommodations they may need to produce an accessible learning environment.

Requests for accommodation should be made as far in advance as reasonably possible to allow sufficient time to make any necessary modifications to ensure the relevant classes, programs, or activities are readily accessible. The Learning/Access Center is available to Pratt students, confidentially, with additional resources and information to facilitate full access to all campus programs and activities and provide support related to any other disability-related matters.

For more information, please visit http://www.pratt.edu/accessibility/.

## Human Rights, Equity, BERT, and Title IX

Pratt Institute seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of harassment, discrimination, bias, or sexual misconduct, we encourage you to report this.

To report an incident regarding a student, faculty, or staff member, please fill out the Bias, Discrimination & Sexual Misconduct Incident Form (http://bit.ly/pratt\_biasform). Submitting an incident report allows the Institute to investigate and take appropriate actions to address your concerns.

If you inform me (your professor) of an issue of harassment, discrimination or bias, or sexual misconduct I will keep the information as private as I can, however, I am required to bring it to the attention of the institution’s Title IX Coordinator. You can access Title IX services by emailing titleix@pratt.edu. You can also speak to someone confidentially by contacting our non-mandatory reporters: Health Services at 718-399-4542, Counseling Services 718-687-5356 or Campus Ministries 718-596-4840.

In incidents where you may prefer to place an anonymous report in confidence, you are encouraged to submit reports through EthicsPoint (http://bit.ly/pratt\_ethicspoint).

If you have any questions about filing or completing an incident report, please contact the Director of Diversity, Equity, and Inclusion or the Title IX Coordinator, by emailing bias@pratt.edu.

For more information, please refer to the Community Standards webpage: http://bit.ly/prattcommunitystandards.

## Communication

The best way to contact me is via email ([josh.hadro@gmail.com](mailto:josh.hadro@gmail.com)). I will make every effort to respond within 24 hours during the school week, though there may be a delay on weekends (weekends are important for everyone!). Should this communication preference change, you will be notified in advance. For questions pertaining to upcoming assignments, make sure to contact us well in advance of the deadline such that you can receive the necessary help prior to the deadline.

## Student Agreement

Attendance at this class signifies that the student has agreed to abide by and adhere to the policies and regulations specified above. It is understood that the instructor may adapt or change this syllabus and the assignments contained within it according to circumstances that may arise during the course of the class.

# Appendix: On Fair Use

Fair use is an extremely important facet of the information industry, and is an essential component of the law to understand and be able to clearly communicate to patrons, researchers, students, and anyone else who might benefit from fair use.

## 17 U.S. Code § 107 - Limitations on exclusive rights: Fair use

<http://www.law.cornell.edu/uscode/text/17/107>

Notwithstanding the provisions of sections [106](http://www.law.cornell.edu/uscode/text/17/106) and [106A](http://www.law.cornell.edu/uscode/text/17/106A), the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

1. **the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;**
2. **the nature of the copyrighted work;**
3. **the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and**
4. **the effect of the use upon the potential market for or value of the copyrighted work.**

The following are the best and most succinct informal criteria for fair use I’ve heard:

1. *Are you using the material to illustrate a specific point that you’re trying to make?*
2. *Are you only using so much as is necessary to make that point?*
3. *Is it clear to the audience what that point is?*

As quoted in “[Fair Use Panel Cautions Against Adopting Georgia State Ruling as Definitive](http://lj.libraryjournal.com/2012/06/shows-events/ala/fair-use-panel-cautions-against-adopting-georgia-state-ruling-as-definitive-ala-annual-2012/)”, *Library Journal*, June 26, 2012.

**Read more:**

Copyright: Fair Use: <https://www.copyright.gov/fair-use/>

Measuring Fair Use: The Four Factors: <http://fairuse.stanford.edu/Copyright_and_Fair_Use_Overview/chapter9/9-b.html>

Fair Use Checklist: <https://copyright.columbia.edu/basics/fair-use/fair-use-checklist.html>

## Pratt School of Information

### Student Technology Expectations

Aptitude in the use of Microsoft Windows-based personal computers, the Microsoft Office Suite and core Internet technologies is expected prior to enrollment. Proficiency with the skills listed below is assumed and will not be taught by SI faculty or staff. Remedial and refresher texts are available in the Pratt Manhattan Library.

**A. Microsoft Windows**

1. Proficiency using **Windows-based computers**. Presently, Apple computers are not supported within the SI curriculum.
2. **File Management** using Microsoft Windows (directories, folders, files, extensions, backing up files, install and uninstall programs).
3. Basic **software troubleshooting** using online help and by following instructions in software manuals.

**B. Microsoft Office**

1. Proficiency in word processing using **Microsoft Word.**
2. Design and creation of effective electronic presentations using **Microsoft PowerPoint.**
3. Familiarity with the principles for simple database design using **Microsoft Access** (set up, edit, save, sort, search for and manipulate data)

**C. Internet**

1. Use of **e-mail** (sending, receiving, replying, forwarding, backing up & deleting messages, as well as sending and opening file attachments)
2. **Web browsing** and **searching** (connecting to website, bookmarking, using Yahoo and Google for searching)
3. Downloading and uploading files using **FTP.**