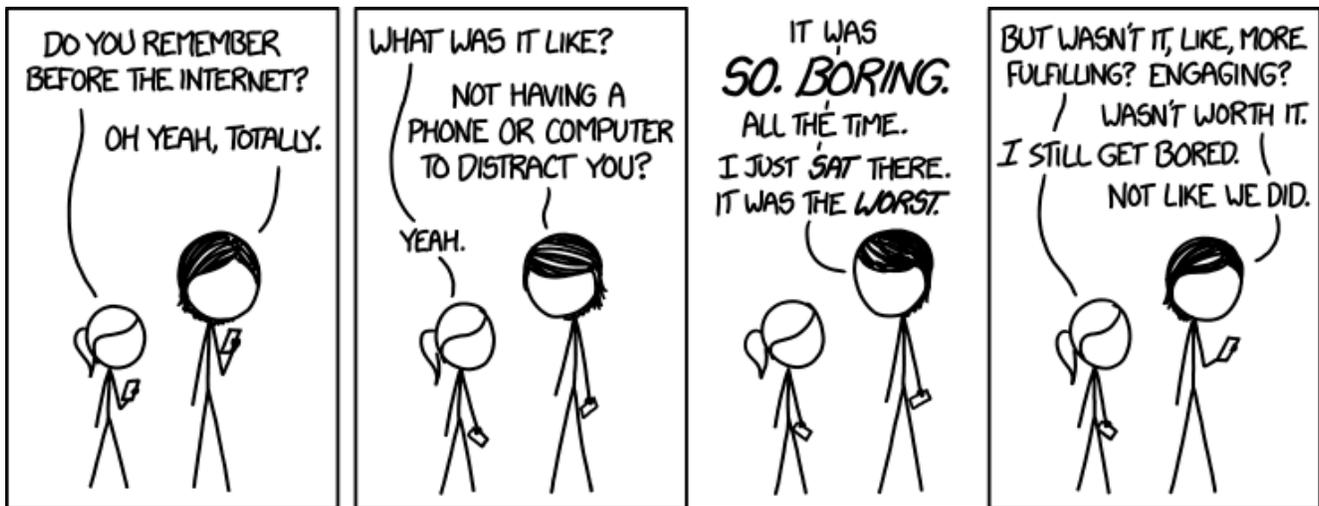


HIST 216: A (LONG) HISTORY OF THE INTERNET

University of Waterloo
Department of History
HIST 216
A (LONG) HISTORY OF THE INTERNET
Winter 2017
6:30-9:30, HH 138



Source: [xkcd](http://xkcd.com)

Instructor Information

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Course Description

The Internet has enabled global connection on an unprecedented level. To live and innovate in a society dominated by network communications requires understanding from where we have come from. Yet, as Google executives Eric Schmidt and Jared Cohen have noted, "the Internet is among the few things humans have built that they don't totally understand."

While the technological story of the rise of the Internet and the Web today is important – our course touches on

early computing, theories of hypertext, the ARPANET, and the networking revolutions of the 1980s and 1990s – the longer human story is equally critical. How has the concept of information evolved? How has print media emerged and evolved? How have humans communicated over time and space? How have common standards evolved, allowing people across the globe to communicate with each other?

Topics include:

- The invention and impact of the printing press;
- 19th-century communications technology (or why it turns out early fights around telephones can shed a lot of light on net neutrality!);
- The Emergence of Hypertext from Unlikely Places;
- Cold War Research Networks and the Rise of the Modern Internet;
- How the 'net developed around the world, from BBSes in Taiwan to Minitel in France; and
- Much more!

Course Goals and Learning Objectives

We have three goals for this course:

- To introduce you to a long history of the Internet by introducing you to the technological and social predecessors of today's networked communications: we largely begin with the printing press in early Modern Europe and end with the World Wide Web.
- To develop and hone your research and writing skills through two short papers.
- To help you gain confidence in your speaking and discussion skills.

Required Texts

There are no required texts. All readings are available through the UW Library E-Reserves System or the Web.

Assessment in a Nutshell

HIST 216 Assessment Breakdown		
Assignment	Due Date	Percentage
Participation	Ongoing	20%
Essay #1: Early Technologies	9 February 2018	25%
Essay #2: The Early Web	30 March 2018	25%
Final Exam	Exam Period	30%

Assignment Breakdown

Note: I offer a no-questions-asked extension on either of the essays. On one of the two essays (NOT the exam), you can take five days extension just by e-mailing Professor Milligan.

Participation

You get participation by doing a few things in HIST 216.

- Attendance;
- Having done the readings and thought about them (the professor will give a prompt before each class about things to think about!);
- Participating in discussions we have in lecture;

- Participating in weekly in-class activities, etc.;

Don't worry! Some of us are shy, some of us aren't, etc. If you have trouble contributing, or have questions, just e-mail Professor Milligan.

Essay One: Early Technologies (4-5 pages), due 9 February 2018 by 11:59pm

For this paper, you will flesh out a discussion that we'll have in class, based on in-class readings and lectures. Answer one of the following questions:

- Is it appropriate to draw parallels between the printing press and the invention of the Internet? Does a historical perspective help us in this respect, or does it obscure?
- How has the role of the library evolved over the last few thousand years? What can we learn from history to think about the future of libraries? Are libraries still relevant today?
- The Internet as we know it inherited quite a bit of its regulatory (the rules by which it operates) framework from the telephone. Today, we're debating moving away from those principles – which have informed "net neutrality" – in favour of a new model. How can the history of the telephone inform our political debates today?

Please do so in a **4-5 page paper**. Each paper should make sure that it has a **strong thesis**, backs up that thesis with arguments, and ends with a conclusion. We'll talk about each of those building blocks in class, so don't worry. If it's your first essay you've written for a history course, you'll be in good hands.

Essay Two: The Early Web (5-6 pages), due 30 March 2018 by 11:59pm

What can we learn from early websites? It seems odd to use websites as historical sources, but as we'll talk about in class, the Web is actually pretty old now. Indeed, you can now go back to look at websites that were created before you were even born!

In this short paper, I'd like you to carry out a short research project using only old websites. You can be creative and come up with your own topic, using the example questions I provide below. Or you can be non-creative and use one of the example questions. As always, I'd like you to follow your passions however.

Example:

- How did Canadian restaurants change between 1996 and 2005 on the Web? (looking at chain restaurant menus, recipes, food blogs);
- How did people express their love of the Backstreet Boys?
- How did people engage with the 9/11 attacks online?

One way to structure your paper could be as follows:

- Introduce your topic and provide a thesis (1 page);
- Discuss your findings (4 pages);
- In your conclusion, discuss what it is like to do this sort of research. Was it easy? Difficult? (1 page)

Final Exam

There will be a final exam scheduled during the final exam period, covering all concepts from the course. We will do an exam review during the last class.

The format of the final exam is still to be determined, but will likely include:

- Two questions where you identify a term and discuss why it is important. A full list of terms will be provided during the study period. (40%)

- One essay question, chosen from a list of three, covering a major topic or theme from the course. (60%)

Week-by-Week Breakdown

Every week, I will post on LEARN a list of the readings (with links) and discussion questions. They're here for reference but you will find it easier to use LEARN to follow along.

Week-by-Week Breakdown		
Week	Topic	Readings
1 - January 8th, 2018	Course Introduction	No readings this week
2 - January 15th, 2018	The Invention and Impact of the Printing Press	<p>John Naughton, <i>From Gutenberg to Zuckerberg: Disruptive Innovation in the Age of the Internet</i>, pp. 1-23.</p> <p>James A. Dewar, "The Information Age and the Printing Press." A now somewhat dated but provocative think piece from RAND Corporation. https://www.rand.org/pubs/papers/P8014/index2.html</p> <p><i>Discussion idea: Is it appropriate to draw parallels with the invention of the Internet? Does history help us in this respect, or does it obscure? Jot a few notes down in favour of either argument.</i></p> <p>Abby Smith Rumsey, <i>When We Are No More: How Digital Memory is Shaping our Future</i>, pp. 30-47.</p> <p>VERY Short Readings</p> <p>Brewster Kahle, Ana Parejo Vadillo, "The Internet Archive: An Interview with Brewster Kahle," https://www.19.bbk.ac.uk/articles/10.16995/ntn.760/.</p>
3 - January 22nd, 2018	Storing and Preserving Information: The History of the Library	<p>"Do We Still Need Libraries?" <i>New York Times</i> section, https://www.nytimes.com/roomfordebate/2012/12/27/do-we-still-need-libraries.</p> <p>Mark Y. Herring, "10 Reasons Why the Internet is No Substitute for a Library," <i>American Libraries</i>, 2010. https://americanlibrariesmagazine.org/2010/01/20/10-reasons-why-the-internet-is-no-substitute-for-a-library/.</p> <p><i>As you read these pieces, think about the library. What was its role in the 17th century? The 18th century? The 19th century? What about today? What can we learn from history to think about the future of libraries?</i></p>
4 - January 29th, 2018	The Telegraph and the Telephone	Robert MacDougall, <i>The People's Network: The Political Economy of the Telephone in the Gilded Age</i> , ch. 2.

VERY Short Readings

Laura Sydell, "Long Before Net Neutrality, Rules Leveled the Landscape for Phone Services," 27 February 2015, <https://www.npr.org/sections/alltechconsidered/2015/02/27/389318714/fcc-votes-along-party-lines-for-net-neutrality>.

Larry Downes, "The Tangled Web of Net Neutrality and Regulation," *Harvard Business Review*, 31 March 2017, <https://hbr.org/2017/03/the-tangled-web-of-net-neutrality-and-regulation>.

As you read these pieces, think about net neutrality and the telephone. How can the history of the telephone inform our political debates today?

Reading: Mary Vipond, "The Beginnings of Public Broadcasting in Canada: The CRBC, 1932-1936." *Canadian Journal of Communication*, 1994. <http://cjc-online.ca/index.php/journal/article/view/806/712>

5 - February 5th, 2018 Wireless, Radio, Television... oh my

I will provide a few VERY Short readings the week before, cognizant that your assignments are shortly due.

ASSIGNMENT #1

ASSIGNMENT #1 DUE 9 FEBRUARY 2018

Reading: Belinda Barnet, *Memory Machines: The Evolution of Hypertext*, ch. 2.

6 - February 12th, 2018 Hypertext: From Memex to Xanadu to the Web

Primary reading: Vannevar Bush, "As We May Think," *Atlantic Monthly*, July 1945. <https://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/>

READING WEEK READING WEEK

READING WEEK - TAKE A HIST 216 BREAK!

Reading: James Gillies and Robert Cailliau, *How the Web was Born*, ch. 1.

7 - February 26th, 2018 ARPANET to TCP/IP

Primary reading: Paul Baran, "On Distributed Communications," RAND Corporation, August 1964. https://www.rand.org/content/dam/rand/pubs/research_memoranda/2006/RM3420.pdf

Don't be overwhelmed by the Baran piece. But it's a central document in where our modern Internet comes from (and once you put aside all the random pages and

stuff, it's about 35 double-spaced pages long).

8 - March 5th, 2018	San Francisco Hippies: From Counterculture to Cyberculture	<p>Reading: Fred Turner, <i>From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism</i>, ch. 1.</p> <p>Primary reading: I will provide some documents the week before. Bring your favourite Grateful Dead CDs.</p>
9 - March 12th, 2018	The Emergence of the World Wide Web	<p>Reading: Tim Berners-Lee, <i>Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web</i>, ch. 2.</p> <p>Tim Berners-Lee, "Information Management: A Proposal," http://info.cern.ch/Proposal.html.</p> <p>Readings: Li Shao Liang et al, "A Brief History of the Taiwanese Internet," in <i>The Routledge Companion to Global Internet Histories</i>, 2017.</p> <p>Mark McClelland, "Early Computer Networks in Japan, 1984-1994," in <i>The Routledge Companion to Global Internet Histories</i>, 2017.</p> <p>Jo Dongwon, "H-Mail and the Early Configuration of Online User Culture in Korea," in <i>The Routledge Companion to Global Internet Histories</i>, 2017.</p> <p><i>(Don't worry about all the reading this week, we'll talk before the class about how we'll divvy it up)</i></p>
10 - March 19th, 2018	Web Around the World	<p>Readings: Ian Milligan, "The Problem of History in the Age of Abundance," <i>Chronicle of Higher Education</i>, December 2016. Read it here.</p> <p>Zeynep Tufekci, <i>Twitter and Tear Gas</i>, ch. 1.</p> <p>Primary document: None this week, make sure to work on Assignment #2!</p>
ASSIGNMENT #2		ASSIGNMENT #2 DUE 30 MARCH 2018
12 - April 2nd, 2018	Course Conclusion, Exam Review, and the Road Ahead	No readings. Study and work!
FINAL EXAM	FINAL EXAM	FINAL EXAM SCHEDULED BY REGISTRAR

Rules and Importance Course Policies

Late Assignments

Late Assignments: In order to be fair to your classmates, there is a late assignment of 5% per day. However, ONCE per term you can take a no-questions-asked one week delay on either Assignment #1 or Assignment #2.

Academic Integrity

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity webpage](#) and the [Arts Academic Integrity webpage](#) for more information.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt, please be certain to contact the department’s administrative assistant who will provide further assistance.

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#).

Accommodation for Students with Disabilities

Note for students with disabilities: The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Mental Health Support

All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health supports if they are needed.

On Campus

- Counselling Services: counselling.services@uwaterloo.ca / 519-888-4567 xt 32655
- **MATES:** one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services
- Health Services Emergency service: located across the creek from Student Life Centre

Off campus, 24/7

- **Good2Talk:** Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-433 ext. 6880
- **Here 24/7:** Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- **OK2BME:** set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213

Full details can be found online at the Faculty of ARTS [website](#)

Download [UWaterloo and regional mental health resources \(PDF\)](#)

Download the [WatSafe app](#) to your phone to quickly access mental health support information