



"Don't Have Facebook, My Life is Real" Panama City, Panama, September 2016 (Elvin Wyly)



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Living in the Smart City:

Planetary Urbanization, Social Media Cybernetics, and the New Social Physics

Urban Studies 400: *Seminar in Urban Studies*

January-May, 2019

Mondays, 1:00 - 4:00 pm, Geography Room 229

<http://ibis.geog.ubc.ca/~ewyly/u400.html>

Not long ago, the number of Internet users on the planet surpassed 2.4 billion, the global average time spent in front of computer or smartphone screens reached sixteen hours per week, and Facebook, Inc., completed the integration of its database of birthdays — a billion and counting — with its firehose of other relational data in order to provide birthday gift recommendations optimized according to users' expressed preferences as observed through online activities of 'friend' networks, corporate 'likes,' and various keyword mentions in postings and status updates. When Facebook undertook its IPO (the 'Initial Public Offering,' where the shares of a private company are first offered for wide public sale on the world's larger stock-trading exchanges), the network had 1.11 billion monthly active users spending an average of 31 minutes

on the site per day. That made Facebook (just one of many of the world’s largest social networks) a fast-evolving informational ecosystem of 34.1 billion minutes of human communication every day — translating to a daily magnitude of 64,878 years of human expression that can be measured, monitored, mobilized, and (Facebook’s stockholders demand) monetized. All of these figures are now at least doubled, with Facebook’s user base in late 2017 exceeding 2 billion — more than a quarter of the planet’s entire human population. And all of these trends have coincided with the long-anticipated arrival of a truly global urbanism: sometime in 2007, the world crossed the fifty-percent threshold, and now for the first time in history a majority of the world’s humans live in urban areas.

How are these trends related? Does the meaning of urbanism change when a third of humanity is on the Internet, a quarter is on Facebook, and hundreds of millions more are on other social networking sites around the world? What are the implications when the world’s most highly urbanized societies are now described by marketing firms as the places with the highest rates of Facebook “population penetration” (Figure 1)?

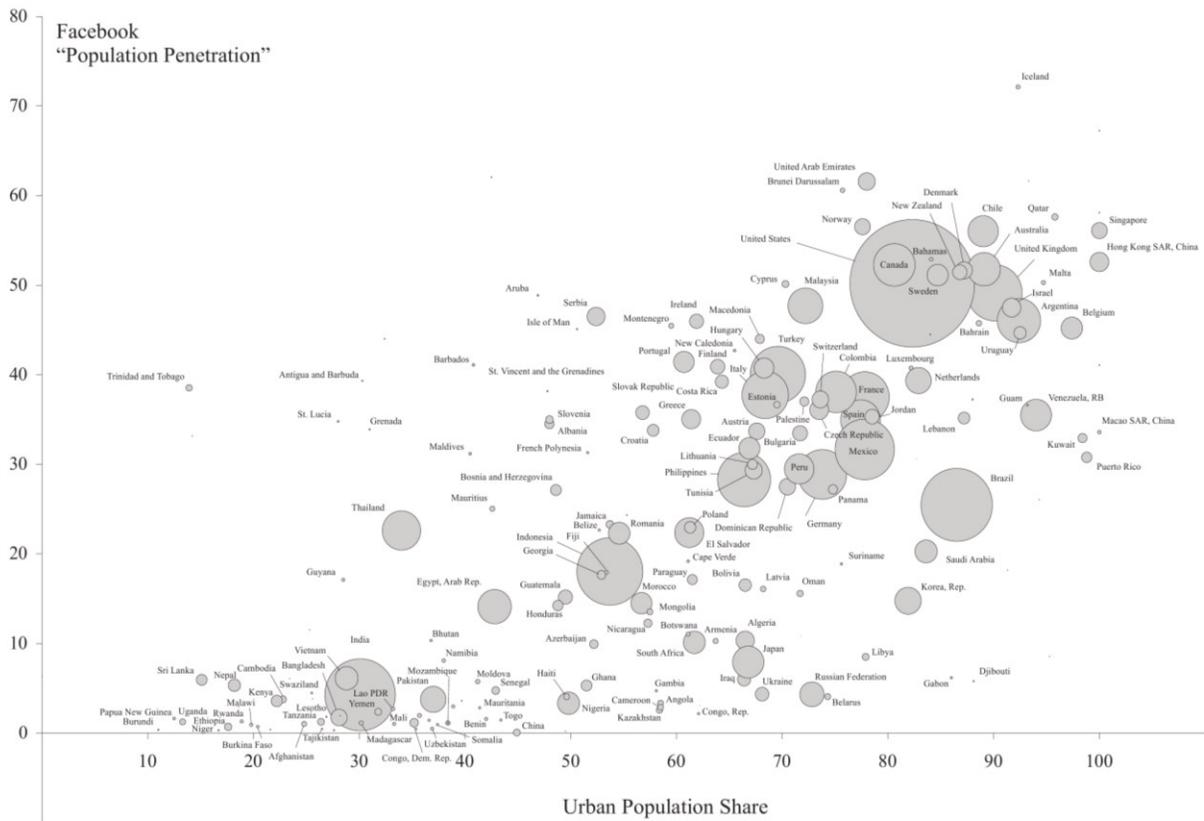
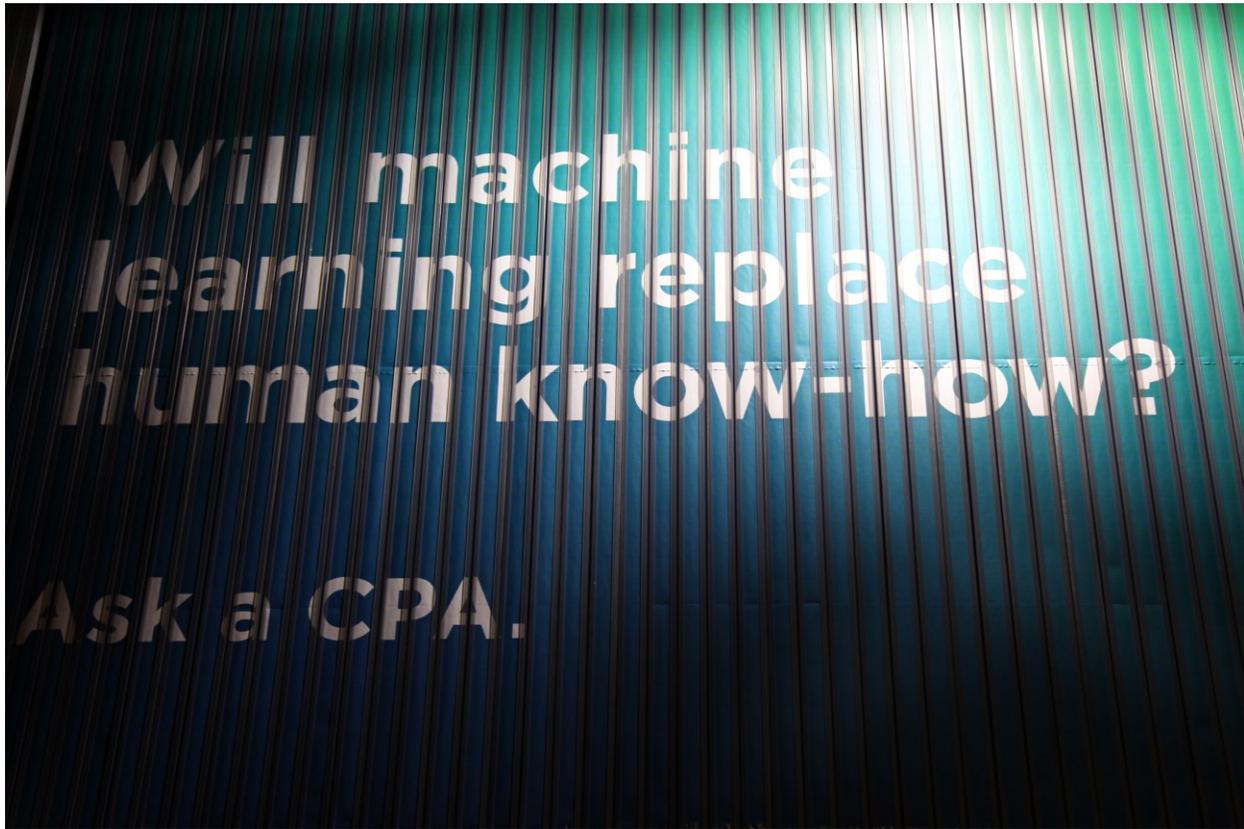


Figure 1. Facebook World City. For the urban sociologist Louis Wirth (1938, p. 2), the city is “the initiating and controlling center of economic, political, and cultural life that has drawn the most remote parts of the world into its orbit and woven diverse areas, peoples, and activities into a cosmos.” Replace “city” with “Facebook” (980 million estimated users), “Qzone” or “Sina Weibo” (480m and 300m, respectively, mostly in mainland China), “Vkontakte” (112m, Russia and former Soviet Republics), or any of dozens of other growing online communities. An urbanizing world is a socially-networked world. Urbanization rates account for 39 percent of the cross-national variance in Facebook’s market penetration. Circle areas are proportional to the number of active Facebook users. *Data Sources:* site registered user estimates from various sources compiled and distributed via Wikipedia; Facebook country figures from publicly distributed estimates of users over previous three months as of July 1, 2012, from

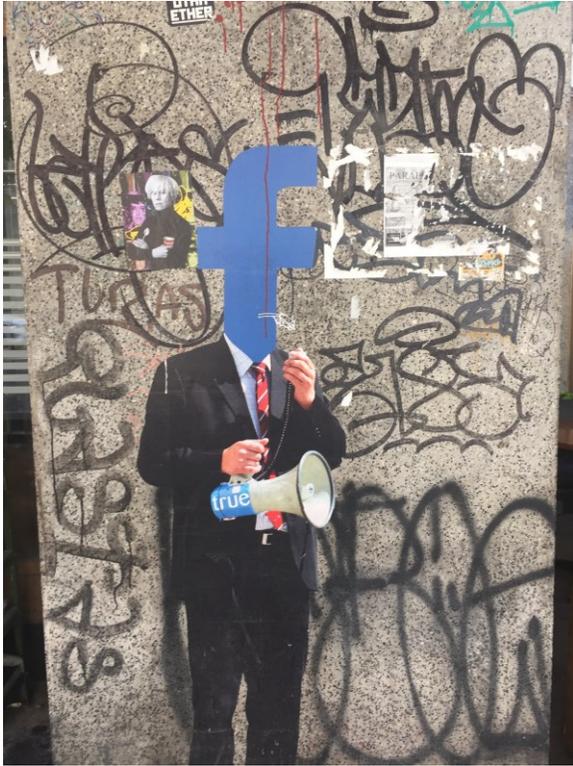
Social Bakers (2012); urbanization rates from World Bank (2011). Note: not all countries are labeled, and 32 countries or territories are omitted due to missing information either on Facebook users or urbanization rates. For further analysis, see Zip et al. (2013).



An automated advertisement asking whether "machine learning" will replace professional human expertise, Main Street, Vancouver, October 2017 (Elvin Wylly)

COURSE OBJECTIVES

The purpose of this course is to explore the relations among urbanization, information technology, social media, and socio-political change. One of our key themes is 'Smart Cities,' a present-day discourse heavily promoted by powerful technology companies and government institutions pushing for the expanded use of technological, informational solutions to a wide array of urban problems. The 'Smart Cities' message is one of new, up-to-the-second technological innovation and disruption, but the central ideas have a very long history. They can be traced back through the 'Quantitative Revolution' that reshaped the social sciences after the Second World War, to the wartime 'cybernetics' advances that understood the hybridity of humans and their computational and communications technologies. The ideas can be traced even further back to Samuel Butler's insight in the 1860s that humanity and technologies were co-evolving in a Darwinian sense, and all the way back to the notion of "social physics," an obscure but persistent concept that was first proposed by the Belgian astronomer/statistician Adolphe Quetelet in 1835. Quetelet's argument for *physique sociale* was bold and simple: the methods that had achieved such remarkable success in the natural sciences should be applied to the "political and moral sciences" as well, to understand the choices and behaviors of individuals, groups, and indeed entire national populations. Social physics was subsequently theorized in more painstaking detail as part of Auguste Comte's philosophy of positivism between the 1830s



Santiago de Chile, October 2016 (Elvin Wyly)

and the 1850s, and eventually found its way into urban studies, economics, planning, geography, and sociology in the 1940s — with the widespread adoption of Newtonian physics metaphors to guide the quantitative measurement of social and political trends. The approach has always been controversial, given the unsettling presumption that human choices, motivations, and meanings can be likened to the motions of stars and planets (or, in the post-Newtonian paradigm, the movements of subatomic particles). There was a strong backlash across the physical sciences, and the social sciences and humanities, beginning in the late 1960s. Yet the framework has consistently delivered the kinds of quantitative measurements demanded by certain types of scientific inquiry and by institutions focused on planning, governance, or corporate competition. And so the approach continues to be widely used. The unpopular connotations of the phrase “social physics” are avoided by speaking instead of the scientific method, ‘evidence-based policy-making,’ data science, or ‘Big Data.’

In recent years, the most dramatic resurgence of social physics modes of thought and analysis comes from the new possibilities of widespread Internet connectivity and the expansion of social media. Wildly popular, best-selling books speak of a global “cognitive surplus,” and of mobile social networking as an entirely new “social operating system” for human relations — replacing or restructuring every major social institution, of family, nation, city, neighborhood, social or cultural identity, corporation ... everything, it seems, is going online, and changing in the process. Manuel Castells describes socially networked crowds like those seen in the Arab Spring and Occupy movements of 2011 and 2012 becoming “a conscious collective actor,” while a physicist historian reminds us that, since the breakthrough of computational sciences involved in the creation of the atomic bomb in the 1940s, we have been living in a “universe of self-replicating code.” Meanwhile, there are heavy media advertisements for Lumosity, a website “based on the science of neuroplasticity” that will help you train your brain; a software program used (by UBC and thousands of other educational institutions) to detect plagiarism is based on a neuroscientist’s insight that brainwave-analysis software could be applied to texts written by students; a Wall Street trading firm promises to execute equities trades “at the speed of thought”; and a secretive firm, Cambridge Analytica, mined the fine-grained digital trails of online social lives of millions of Facebook users to develop what a repentant software engineer called “Steve Bannon’s psychological warfare mindfuck tool.”¹ This all seems to resemble a resurgence of a lot of the ideas of social physics. A strange, utopian concept born in the eighteenth century quickly slipped into obscurity, reappearing from time to time in various theories of science and society, suddenly flourished at the birth of the Atomic Age — only to be relegated once again to

¹ See Carole Cadwalladr (2018). “I made Steve Bannon’s Psychological Warfare Tool’: Meet the Data War Whistleblower.” *The Guardian*, March 18.

a distant memory with the widespread critiques of the late 1960s. Now, in the age of planetary urbanization and worldwide social networking, social physics arrives once again — as something that has become our daily environment in an urban world, as something that each of us helps to build each time we go on the Web, each time we pull out the smartphone or flash a QR code.



Main Street, Vancouver, June 2012 (Elvin Wylly)

TEXTS

Required

Rob Kitchin and Sung-Yueh Perng, eds. (2016). *Code and the City*. New York: Routledge.

Shannon Mattern (2017). *Code and Clay, Data and Dirt: Five Thousand Years of Urban Media*. Minneapolis: University of Minnesota Press.

Manuel Castells (2012). *Networks of Outrage and Hope: Social Movements in the Internet Age*. Cambridge: Polity Press.

George Dyson (2012). *Turing's Cathedral: The Origins of the Digital Universe*. New York: Vintage Books.

David Harvey (2012). *Rebel Cities: From the Right to the City to the Urban Revolution*. Athens and London: University of Georgia Press.

Andy Merrifield (2013). *The Politics of the Encounter: Urban Theory and Protest Under Planetary Urbanization*. Athens, GA: University of Georgia Press.

Anthony M. Townsend (2014). *Smart Cities: Big Data, Civic Hackers and the Quest for a New Utopia*. New York: W.W. Norton.

Sherry Turkle (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.

Tim Wu (2016). *The Attention Merchants: The Epic Scramble to Get Inside Our Heads*. New York: Knopf Doubleday.

Recommended

We've done this seminar for quite a few years now. Each time we do something slightly different, although there are many points of overlap. Here are some of the books we've explored in previous years, mixed in with various other sources that we've found interesting, useful, and/or provocative. These are certainly not part of our "required" reading list. But consider skimming through one or more of these as you begin formulating ideas for your term paper.

Neil Brenner, Peter Marcuse, and Margit Mayer (2011). *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City*. New York and London: Routledge.

John Brockman, ed. (2015). *What Do You Think About Machines That Think?* New York: HarperCollins.

Nicholas Carr (2011). *The Shallows: What the Internet is Doing to Our Brains*. New York: W.W. Norton.

Rob Kitchin, Tracey P. Lauriault, and Matthew W. Wilson (2017). *Understanding Spatial Media*. London: Sage Publications.

Richard T. LeGates and Frederic Stout, eds. (2015). *The City Reader, Sixth Edition*. London: Routledge.

Stephen Graham, ed. (2004). *The Cybercities Reader*. London: Routledge.

Sherry Turkle (2015). *Reclaiming Conversation: The Power of Talk in a Digital Age*. New York: Penguin.

Jaron Lanier (2010). *You Are Not a Gadget: A Manifesto*. New York: Alfred Knopf.

Jaron Lanier (2013). *Who Owns the Future?* New York: Simon & Schuster.

Adam Pez (2014). *The Silicon Rapture: Close Encounters With Artificial Intelligence and the Singularity*. Vancouver, BC: Nonvella.

Walter Isaacson (2011). *Steve Jobs*. New York: Simon & Schuster.

Robert Greenfield (2006). *Timothy Leary: A Biography*. New York: Harcourt.

Michael Lewis (2014). *Flash Boys: A Wall Street Revolt*. New York: Norton.

Norbert Wiener (1954). *Cybernetics and Society: The Human Use of Human Beings*. New York: Da Capo Press.

Marshall McLuhan (1962). *The Gutenberg Galaxy*. Toronto: University of Toronto Press.

Clay Shirky (2010). *Cognitive Surplus: How Technology Makes Consumers into Collaborators*. New York: Penguin.

Ray Bradbury (1953). *Fahrenheit 451*. New York: Ballantine Books.

Neal Town Stephenson (1999). *Cryptonomicon*. New York: Avon Books. But then a crucial companion, which I have not yet finished reading, is N. Katherine Hayles (2006). “Performative Code and Figurative Language: Neal Stephenson’s *Cryptonomicon*,” in *My Mother Was a Computer: Digital Subjects and Literary Texts*. Chicago: University of Chicago Press.

EVALUATION

Course marks are based on seminar participation (30 percent) paper-in-progress writing submissions (30 percent), and a final paper (40 percent).

Participation includes three expectations: regular attendance and contributions to seminar discussions, delivering short oral presentations to lead reading discussions from time to time, and submitting brief (one-page) reflection papers each week.

Suggested dates for paper-in-progress writing submissions: January 21, February 25, and March 18. [When you submit a Paper-in Progress Writing Submission, you are not required to submit a one-page-reflection.] The first submission should be a one-page statement of your research question or thesis; the second submission should be five pages either in the form of i) a detailed outline, ii) an annotated bibliography, or iii) a draft of a major section of the paper. The third submission should be at least five pages of a draft of a major section of the paper.

“Suggested dates” is passive-aggressive language specifying that these deadlines are *optional* but *firm*. If feedback or comments are desired, it is suggested that you make the deadlines. If you

are unable to do so, for any reason, submit at the next deadline; if you need a short extension, in other words, you have it. If you need a longer extension, speak to Faculty Advising professionals who have the authority to grant Standing Deferred or other status adjustments. Emails requesting extensions, requesting extensions for subsequent extensions, excuses for missing previously requested extensions, and questions regarding the meaning of “deadline”² will remain unanswered. Column entries on the grade worksheet for the varied components of the course mark will remain blank until such time as sufficient data is provided for evaluation.

Final Papers are due no later than 5:00 PM April 15, 2019. Papers should be approximately 3,500 words, not counting references; include an abstract of no more than 150 words. Papers must conform to general guidelines at <http://www.geog.ubc.ca/~ewyly/guidelines.html>

When classes are in session, all submissions must be on paper, printed on one side only of standard letter-sized (8.5 x 11.0 inch) paper, and submitted in person. The only exception to this policy comes after the end of formal class meetings at the end of the term: the final term paper should be sent to ewyly@geog.ubc.ca as a single *.pdf attachment.

Recommended topics for the final paper involve the interplay between two areas of inquiry:

- 1) Critical urban theory
- 2) Contemporary empirical trends in data, automation, and information technology

What is “critical urban theory”? If you’ve taken a course with me, you will have a general idea of what this phrase means: it’s a deep suspicion towards established structures and institutions of power, in relation to the distinctive social and spatial processes of the concentration of diversity and inequality that have always defined urbanization. More in-depth discussion of critical urban theory can be found in Neil Brenner, Peter Marcuse, and Margit Mayer’s book, *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City*, as well as some of the selections included in the LeGates and Stout *City Reader*. As for the “contemporary empirical trends,” there’s an overwhelming list of topics that floods every day’s headlines in the business and technology press. Consider just a tiny sample of recent trends:

- the increasingly prominent role of social networking in mediating friendships, family life, community organization, employment, and public institutions
- the social implications of adaptive search algorithms and auto-recommend features of Google, Facebook, Amazon, and other information technology companies
- drones and the re-definition of urban public and private spaces
- ‘flash’ crashes of high-speed trading algorithms used on Wall Street

² “Does this mean I should wait for the next week’s reflection paper submission to submit my draft? Or should I wait for the next paper in progress submission date?” I have no idea. The goal for this class is for us to spend time reading, learning, talking, and writing; we need to minimize the time and attention devoted to marks, even though this institution does impose certain requirements on an instructor that require an evaluation translated into a quantitative form. At the beginning of the term, a grade worksheet is created with a series of columns. The columns are filled in as our colleagues in the seminar submit reflection papers, contribute to the seminar discussions, lead discussions of readings, submit papers in progress, and submit a final paper. Column entries remain blank if insufficient information is available to adjudicate a numerical estimate. While it is possible for students to do well even if some of the columns remain blank for a while through the term, it is not guaranteed.

- the “Smart Cities” promotions by IBM and other companies to install sensors and surveillance systems to improve the efficiency of transportation and other infrastructure systems
- cyberbullying
- QR codes, radio-frequency identification (RFID) chips, and near-field communications (NFC) devices that generate streams of data from various kinds of consumer products
- the “quantified self” movement, in which enthusiasts use Fitbits and similar devices to monitor detailed streams of data on their health, exercise, and sleeping patterns
- Google Glass, Oculus Rift, and other attempts to create ‘virtual reality’ or ‘augmented reality’ experiences
- the use of “predictive policing” that combines law-enforcement databases with advanced analytics to predict locations, times, or individuals with greater propensities for criminal violations
- the vast databases of cell phone tracking data, emails, browsing histories, and social-networking data maintained by the U.S. National Security Agency (NSA) and other intelligence agencies
- the deeply personalized data on human social interactions accumulated by internet dating sites and other technology companies
- the increasingly pervasive role of information technology and social media in various kinds of scandals in popular culture and politics (from celebrity phone-hacking to Hilary Clinton’s email server, the ‘triple-delete’ email erasures of B.C. Premier Christy Clark’s ministers and staffers in 2015 and 2016, Wikileaks and the hacking of the Democratic National Committees’s servers before the U.S. presidential election, Kremlin hackers’ impersonation of grassroots organizations to form Facebook groups seeking to influence the election, ... and so many others)
- the ‘Gamergate’ controversies over the gender politics of online games, and the role of cybernetic trolling in the rise of Breitbart, Milo Yiannopolous, and Donald Trump
- the Cambridge Analytica scandal, involving the exploitation of Facebook social activity to calibrate ‘psychographic’ models of voter attitudes in Donald Trump’s campaign for the U.S. presidency
- the ‘right to be forgotten’ legal ruling in the European Union that now allows individuals to demand internet search companies to remove links to embarrassing personal information about past mistakes or misdeeds
- artificial intelligence
- the proliferation of internet connectivity and social-networking features in new automobiles — along with concerns over security after researchers used a Jeep Cherokee to demonstrate that it was possible to hack into the vehicle’s system and to gain remote control over the steering and brakes while it was driving down a test track
- new configurations of intersectional identity politics and technological utopianism in Silicon Valley, ranging from PayPal founder, Facebook first investor, and ‘transhumanist’ Peter Thiel’s support for Donald Trump, to Harmeet Dhillon’s prayer at the Republican National Convention and subsequent representation of James Damore (author of the famous ‘Google memo’).
- ‘robo-journalism,’ the use of robotic algorithms to write short, descriptive news reports about sporting events or natural disasters
- ‘robo-grading,’ the use of algorithms to score essays written by students

- the rise of massive open online courses (MOOCs) and online “learning management systems” that collect massive dossiers of detailed information about individual students’ reading activities and course performance

If you want to see how I integrate some of these topics with critical urban theory, then you should read one or more of the articles I’ve published on these matters in the last few years. The most concise example — it’s just under 3,500 words of main text and one footnote, not counting references, and so it’s a nice model for the length you should aim for in your final paper — is this:

Wyly, Elvin (2013). “The City of Cognitive-Cultural Capitalism.” *City* 17(3), 387-394.

More lengthy and detailed discussions of my perspective on critical urban theory and information technology appear in several other publications:

Wyly, Elvin, Joseph Daniels, Tanaz Dhanani, and Christa Yeung (2019). “Hayek in the Cloud: Conservative Cognition and the Evolution of the Smart City.” *City*, forthcoming. A presentation version with images and Clint Eastwood impersonations is [here](#).

Wyly, Elvin (2015). “Gentrification on the Planetary Urban Frontier: Turner’s Noösphere.” *Urban Studies* 52(14), 2515-2550.

Wyly, Elvin (2015). “Where is an Author?” *City* 19(1), 5-43.

Wyly, Elvin (2014). “Automated (Post)Positivism.” *Urban Geography* 35(5), 669-690.

Wyly, Elvin (2014). “The New Quantitative Revolution.” *Dialogues in Human Geography* 4(1), 26-38.

For examples of papers written by students who have taken this course in previous years, see:

Zip, Larissa, Rebekah Parker, and Elvin Wyly (2013). “Facebook as a Way of Life: Louis Wirth in the Social Network.” *The Geographical Bulletin* 54(1), 1-22.

Gray, Mitchell, and Elvin Wyly (2007). “The Terror City Hypothesis.” In Derek Gregory and Allan Pred, eds., *Violent Geographies: Fear, Terror, and Political Violence*. London and New York: Routledge, pp. 329-348.

Gray, Mitchell (2003). “Urban Surveillance and Panopticism: Will We Recognize the Facial Recognition Society?” *Surveillance & Society* 1(3), 314-330.

Johns, Samuel (2012). “Urban Life in the Age of the Screen.” Vancouver: Urban Studies Program, University of British Columbia. Presentation available at [http://ibis.geog.ubc.ca/~ewyly/Private/u200/Johns\(2012\).html](http://ibis.geog.ubc.ca/~ewyly/Private/u200/Johns(2012).html)

Archives of some of the seminar materials from previous years is available at
<http://ibis.geog.ubc.ca/~ewyly/u400.html>

These resources may be updated from time to time. All other necessary details and recommendations will be provided in class. Please join us. A good seminar is a bit like a city; let's build one together!

SCHEDULE AND READINGS

Below is a *tentative, provisional* schedule to give you a general overview of the kinds of materials we will be exploring. **For the definitive schedule of weekly activities, you must consult the “Schedule” tab at**

<http://ibis.geog.ubc.ca/~ewyly/u400.html>

Always be sure to “refresh” the page, with whatever browser you're using, to ensure that you're seeing the most recent updates rather than a cached version of the page.

Required readings are indicated by an asterisk*; other entries are recommendations.

Introductions.

“Kresge was the sixth college established at the University of California, Santa Cruz. Founded in 1971, it was designed with the concept of participatory democracy as a means of encouraging a strong sense of community. The vision was for the college to be a place where students enjoyed a sense of creativity, community, and individuality.” (Kresge College website, 2013).

*Claudia Dreifus and Adam Alter (2017). “Why We Can't Look Away From Our Screens.” *New York Times*, March 6.

*Stacy Torres (2017). “You Don't Want to Buy Groceries from a Robot.” *New York Times*, June 23.

*Curtis Sittenfeld and Matt Carlson (2017). “A Wedding Announcement 165 Years from Now.” *New York Times*, February 21.

*Michael Kahn (1971). *The Seminar*. Unpublished manuscript. Redding, CA: Kresge College, University of California.

*Nadine Schuurman (2013). “Tweet Me Your Talk: Geographical Learning and Knowledge Production 2.0.” *Professional Geographer* 65(3), 369-377.

*Student (2013). “The Automated Epistemology of an iParadigm Shift.” *Human Geography*, June.

Cities and the New Social Physics: An Overview.

- *Allen J. Scott (2011). "Emerging Cities of the Third Wave." *City* 15(3-4), 289-321.
- *Elvin K. Wyly (2013). "The City of Cognitive-Cultural Capitalism." *City* 17(3), 1-8.
- *Larissa Zip, Rebekah Parker, and Elvin Wyly (2013). "Facebook as a Way of Life: Louis Wirth in the Social Network." *The Geographical Bulletin* 54(1), 1-22.
- *Luis Bettencourt and Geoffrey West (2010). "A Unified Theory of Urban Living." *Nature* 467, 912-913.
- *Evgeny Morozov (2014). "The Rise of Data and the Death of Politics." *The Observer*, 20 July.
- *Robert A. Burton (2017). "Donald Trump, Our A.I. President." *New York Times*, May 22.
- *Kai-Fu Lee (2017). "The Real Threat of Artificial Intelligence." *New York Times*, June 24.
- Allen J. Scott (2011). "A World in Emergence: Notes Toward a Resynthesis of Urban-Economic Geography for the 21st Century." *Urban Geography* 32(6), 845-870.
- Marc Andreessen (2011). "Why Software is Eating the World." *Wall Street Journal*, August 20.
- George Packer (2013). "Change the World." *The New Yorker*, May 27, 44-55.
- Elvin Wyly (2015). "Where is an Author?" *City*, forthcoming.

The History of Social Physics. Statement of Research Question / Thesis Due.

- *Trevor Barnes (2013). "Big Data, Little History." *Dialogues in Human Geography* 3(3), 297-302.
- *Trevor Barnes (2013). *Newton Mangled on a Bissett Home-Made Electrical Computer: The Cold War, Social Physics, and Macrogeography in Mid-Twentieth Century America*. Vancouver: Department of Geography, University of British Columbia.
- *John Q. Stewart (1950). "The Development of Social Physics." *American Journal of Physics* 18(5), 239-253.
- *Mary Pickering (1993). *August Comte: An Intellectual Biography*. Cambridge, MA: Cambridge University Press, pp. 338-339, 605.
- Eduardo Faerstein and Warren Winkelstein, Jr. (2012). "Adolphe Quetelet: Statistician and More." *Epidemiology* 23(5), 762-763.

Auguste Comte (1842). "Social Physics, Chapter 1: Necessity and Opportuneness of This New Science." In Gertrud Lenzer, ed. (1998), *Auguste Comte and Positivism: The Essential Writings*. New Brunswick, NJ: Transaction Publishers, 197-217.

George Kingsley Zipf (1947). "The Hypothesis of the Minimum Equation as a Unifying Social Principle with Attempted Synthesis." *American Sociological Review* 12(6), 627-650.

Donald G. Janelle (1997). "In Memoriam: William Warntz, 1922-1988." *Annals of the Association of American Geographers* 87(4), 723-731.

William Warntz (1989). "Newton, the Newtonians, and the Geographia Generalis Varenii." *Annals of the Association of American Geographers* 79(2), 165-191.

William Warntz (1967). "Global Science and the Tyranny of Space." *Papers in Regional Science* 19(1), 6-19.

Regina Pustet (2004). "Zipf and His Heirs." *Language Sciences* 26, 1-25.

The Universe of Self-Replicating Code.

*George Dyson (2012). *Turing's Cathedral: The Origins of the Digital Universe*. New York: Vintage Books. Chapter 1, "1953," Chapter 3, "Veblen's Circle," Chapter 4, "Neumann Janos," and Chapter 13, "Turing's Cathedral."

George Dyson (2012). "A Universe of Self-Replicating Code." Edge, March 26, at <http://edge.org>

Nielsen, Michael (2015). "The Rise of Computer-Aided Explanation." *Quanta Magazine*, July 23.

A New Social Operating System?

*Lee Rainie and Barry Wellman (2012). *Networked: The New Social Operating System*. Cambridge, MA: MIT Press. Chapter 1, "The New Social Operating System of Networked Individualism," and Chapter 4, "The Mobile Revolution."

*Sherry Turkle (2011). *Alone Together: Why We Expect More from Technology and Less From Each Other*. New York: Basic Books. Introduction, "Alone Together."

Clay Shirky (2010). "Gin, Television, and Cognitive Surplus." In *Cognitive Surplus: How Technology Makes Consumers into Collaborators*. New York: Penguin, 1-29.

University Closed, BC Family Day Statutory Holiday.

Assignment: Read (consider the recommended readings, as well as items cited in the required readings), and **work on your paper**. An additional recommendation:

Elvin Wyly (2014). "Automated Postpositivism." *Urban Geography* 35(5), 669-690.

No Class, UBC Reading Break.

Assignment: Read (consider the recommended readings, as well as items cited in the required readings), and **work on your paper**. An additional recommendation:

Elvin Wyly (2014). "The New Quantitative Revolution." *Dialogues in Human Geography* 4(1), 26-38.

Networked Neuroplasticity. Outline / Annotated Bibliography / Section Draft Due.

*Sherry Turkle (2011). *Alone Together: Why We Expect More from Technology and Less From Each Other*. New York: Basic Books. Chapter 9, "Growing Up Tethered," Chapter 10, "No Need to Call."

*Nicholas Carr (2011). *The Shallows: What the Internet is Doing to Our Brains*. New York: W.W. Norton. Prologue, "The Watchdog and the Thief," Chapter 2, "The Vital Paths," Chapter 3, "Tools of the Mind," Chapter 8, "The Church of Google."

Patricia Marx (2013). "Mentally Fit." *The New Yorker*, July 29, 24-28.

Networks of Outrage and Hope.

*Manuel Castells (2012). *Networks of Outrage and Hope: Social Movements in the Internet Age*. Cambridge: Polity Press. "Opening: Networking Minds, Creating Meaning, Contesting Power," "The Egyptian Revolution," "Changing the World in the Network Society," and "Beyond Outrage, Hope: The Life and Death of Networked Social Movements."

The Noösphere.

*Pierre Tielhard de Chardin (1956). "The Antiquity and World Expansion of Human Culture." In William L. Thomas, Jr., *Man's Role in Changing the Face of the Earth*. Chicago: University of Chicago Press, 103-112.

*Jaron Lanier (2010). "The Noosphere is Just Another Name for Everyone's Inner Troll." In *You Are Not a Gadget: A Manifesto*. New York: Knopf, 45-72.

Thomas J. Campanella (2001). "Web Cameras and the Telepresent Landscape." In Stephen Graham, ed., *The Cybercities Reader*. London: Routledge, 57-63.

Canadian Broadcasting Corporation (1968). "Norman Mailer and Marshall McLuhan Debating 1968." Available on YouTube.

Alan M. Turing (1950). "Computing Machinery and Intelligence." *Mind* 59(236), 433-460.

Peter R. Gould (1985). "Thinks That Machine." *Integrative Psychiatry* 3, 229-232, reprinted in

Peter R. Gould (1999). *Becoming A Geographer*. Syracuse, NY: Syracuse University Press, 300-306.

Theorizing the Right to the City.

Neil Smith (2003). "Foreword." Henri Lefebvre (1970). *The Urban Revolution*. Minneapolis: University of Minnesota Press, vii-xxiii.

Henri Lefebvre (1970). "From the City to Urban Society." In *The Urban Revolution*. Minneapolis: University of Minnesota Press, 2003 Edition, 1-22.

*David Harvey (2012). *Rebel Cities: From the Right to the City to the Urban Revolution*. London: Verso. Chapter 4, "The Art of Rent," Chapter 5, "Reclaiming the City for Anti-Capitalist Struggle," and Chapter 7, "#OWS: The Party of Wall Street Meets its Nemesis."

*Neil Brenner, Peter Marcuse, and Margit Mayer (2012). *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City*. New York: Routledge. Chapter 3, Marcuse, "Whose Right(s) to What City?," Chapter 4, Schmid, "Henri Lefebvre, the Right to the City, and the New Metropolitan Mainstream," and Chapter 6, Goonewardena, "Space and Revolution in Theory and Practice: Eight Theses."

Presentation and Discussion of Draft Papers.

An "Unprecedented Cosmic Singularity."

*Andy Merrifield (2013). "The Urban Question Under Planetary Urbanization." *International Journal of Urban and Regional Research* 37(3), 909-922.

*Sherry Turkle (2011). *Alone Together: Why We Expect More from Technology and Less From Each Other*. New York: Basic Books. Conclusion, "Necessary Conversations," Epilogue, "The Letter."

James Gleick (2011). "Epilogue (The Return of Meaning)." In *The Information: A History, A Theory, a Flood*. New York: Vintage, 413-426.

Ray Bradbury (1953). "The Hearth and the Salamander." In *Fahrenheit 451*. New York: Ballantine Books, 3-73.

Brendan Gleeson (2013). "What Role for Social Science in the 'Urban Age'?" *International Journal of Urban and Regional Research*, 1-13.

Last day of Term 2 classes: Thursday, April 4, 2019. Exam period April 8 to 26 inclusive.

Other Policies and Procedures

Here are some of the other specific policies the University mandates for inclusion in course outlines.³ Regular attendance is expected. The University accommodates students with disabilities who have registered with the Disabilities Resource Centre. The University accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations.

Please let the instructor know in advance, preferably in the first week of class, if you will require any accommodation on these grounds. Students who plan to be absent for varsity athletics, family obligations, or other similar commitments, cannot assume they will be accommodated. Please review the UBC Calendar “Academic regulations” for the university policies on academic dishonesty, and visit www.arts.ubc.ca for useful information on correct documentation and avoiding plagiarism. Violations of academic integrity will result in severe sanctions.

Pursuant to UBC Senate requirements on *Content and Distribution of Course Syllabi*, please note that this course is governed by the following principles, policies, and procedures.

Students are responsible for understanding and complying with the University’s policies on **Academic Honesty and Standards**, described at

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,286,0,0#15620>

which specifies that

“Academic honesty is essential to the continued functioning of the University of British Columbia as an institution of higher learning and research. All UBC students are expected to behave as honest and responsible members of an academic community. Breach of those expectations or failure to follow the appropriate policies, principles, rules, and guidelines of the University with respect to academic honesty may result in disciplinary action.

It is the student's obligation to inform himself or herself of the applicable standards for academic honesty. Students must be aware that standards at the University of British Columbia may be different from those in secondary schools or at other institutions. If a student is in any doubt as to the standard of academic honesty in a particular course or assignment, then the student must consult with the instructor as soon as possible, and in no case should a student submit an assignment if the student is not clear on the relevant standard of academic honesty.

If an allegation is made against a student, the Registrar may place the student on academic hold until the President has made his or her final decision. When a

³ For recent updates on administrative deliberations on information disclosure and procedural regulations, see [http://ibis.geog.ubc.ca/~ewyly/teaching/UBC\(2018\).pdf](http://ibis.geog.ubc.ca/~ewyly/teaching/UBC(2018).pdf)

student is placed on academic hold, the student is blocked from all activity in the Student Service Centre.”

All teaching and learning activities at the University are governed by the **Policy on Academic Freedom**, available at

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0>

which specifies that

“The members of the University enjoy certain rights and privileges essential to the fulfilment of its primary functions: instruction and the pursuit of knowledge. Central among these rights is the freedom, within the law, to pursue what seems to them as fruitful avenues of inquiry, to teach and to learn unhindered by external or non-academic constraints, and to engage in full and unrestricted consideration of any opinion. This freedom extends not only to the regular members of the University, but to all who are invited to participate in its forum. Suppression of this freedom, whether by institutions of the state, the officers of the University, or the actions of private individuals, would prevent the University from carrying out its primary functions. All members of the University must recognize this fundamental principle and must share responsibility for supporting, safeguarding and preserving this central freedom. Behaviour that obstructs free and full discussion, not only of ideas that are safe and accepted, but of those which may be unpopular or even abhorrent, vitally threatens the integrity of the University's forum. Such behaviour cannot be tolerated.”

An essential element of this academic freedom involves UBC's **Policy on Freedom from Harassment and Discrimination**, available at

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,87,0>

which notes that

“The University of British Columbia is committed to ensuring that all members of the University community — students, faculty, staff, and visitors — are able to study and work in an environment of tolerance and mutual respect that is free from harassment and discrimination.”

UBC's Policy on accommodations for students **whose responsibilities conflict with religious observances**, along with procedures for notification, is outlined at

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,48,0,0>

UBC's **Policy on Accommodation for Students with Disabilities** is available at

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,34,0,0>

and provides that

“The University of British Columbia recognizes its moral and legal duty to provide academic accommodation. The University must remove barriers and provide opportunities to students with a disability, enabling them to access university services, programs, and facilities and to be welcomed as participating members of the University community. The University’s goal is to ensure fair and consistent treatment of all students, including students with a disability, in accordance with their distinct needs and in a manner consistent with academic principles.”

Students with a disability who wish to have an academic accommodation should contact the **Centre for Accessibility** as soon as possible:

<https://students.ubc.ca/about-student-services/centre-for-accessibility>

UBC Policy No. 131 specifies that “UBC has a responsibility to maintain a respectful environment where its members can study, work, and live free from sexual misconduct.” Further details on UBC’s **Policy on Sexual Assault and Other Sexual Misconduct** are available at

https://universitycounsel.ubc.ca/files/2017/05/policy131_final.pdf

Resources for the prevention of sexual violence, and for support for survivors, is provided at UBC’s **Sexual Violence Prevention and Response** office, at

<https://svpro.ubc.ca/>

Now let’s translate this bureaucratese. *My job* is play a small role in expanding your education in the Arts, by showing you a bit of the scope and significance of urban geographical research, and by inspiring and revealing the brilliant urbanist that can be found deep in your soul. *Your job* is to help me to do my job. Please do your best to get to class on time. Please turn off any disruptive technological distractions. UBC is not an online university.⁴ I will make a number of

⁴ Yet. Compare with the digital predatory innovations of the University of Phoenix, at <http://www.phoenix.edu>. The Vancouver division, established in 1998, is their first international campus. Their combination of on-campus and on-line resources is called FlexNet®. My combination of in-person interaction and on-line resources is called Common Sense, but I have not yet applied for trademark protection. Stay tuned. Be forewarned, however, if the University of Phoenix succeeds with its heavy advertising budgets in convincing you to pursue your studies there. Several years ago, John Sperling, Phoenix’s Chief Executive Officer, summed up their mission: “This is a corporation, not a social entity. Coming here is not a rite of passage. We are not trying to develop [students’] value systems or go in for that ‘expand their mind’ bullshit.” Quoted in Terri A. Hasseler (2006). “Fomenting Dissent on Campus.” *Academe*, May-June, 20-23, quote on p. 21. Equating mind expansion with ‘bullshit’ is a serious threat to those values of humanity that are sometimes labeled “civilization.” See, for example, the course materials developed at the University of Washington, Seattle, by Carl T. Bergstrom and Jevin West, *Calling Bullshit*, available at <http://callingbullshit.org>. More recently, an entrepreneur whose innovations included launching a predatory, deceptive scheme given the label “University” went on to describe immigrants from Mexico as rapists and murderers, to declare global warming a hoax by the Chinese, to advocate a religious test for admission to the U.S., and to agree with the ‘shock jock’ Howard Stern that the entrepreneur’s own daughter was “a piece of ass.” The

materials available on the course web site, but please do *not* regard these as substitutes for attendance. The best way to know what happened in class is to be there. The second-best way is to ask someone you know, and whose judgment you respect, who was there.⁵ The *worst* way is to miss class and then send emails asking, “what did I miss in class?” This is not an online course.

Welcome to Urban Studies!

If you’ve read this far, I am truly very sorry for all the bureaucratic and legalistic stuff. Really, honest, I am an easygoing person, and I just love urban stuff and hope to get you excited about it too! Urban studies is fascinating and engaging, and this class is pretty easy if we all do our jobs properly. The syllabus has become so detailed and strident for several reasons. Multiple offices of the university are constantly working to refine various rules and regulations governing different aspects of life in the academy; lawyers are often involved to adjudicate tensions and contradictions among a constantly-evolving ecosystem of rules and regulations created by previous offices and committees to deal with the ever-shifting dynamics of human behaviors, expectations, and perceptions about the learning enterprise — as well as its contextual position within the lives of students, citizens, and other constituencies. Other disclosures are attempts to provide answers to all sorts of ‘frequently asked questions’; over the years, stressed-out students who failed to plan ahead have sent many late-night emails asking ever more detailed questions, while devising ever more creative excuses (“...but it was on time! I was on an international flight, and we crossed the International Date Line, and ...”).

online reach of this entrepreneur is impressive: with more than 50 million followers, he once described himself as the “Ernest Hemingway of Twitter.” This is a reference, of course, to Donald J. Trump and Trump University, which was heavily promoted with promises that everyone could get rich from real estate by learning The Donald’s amazing business secrets. The scheme was the subject of class-action lawsuits over high-pressure sales tactics and deceptive, costly programs. Trump settled the lawsuits immediately after winning the 2016 U.S. Presidential election. See Michael Barbaro and Steve Eder (2016). “At Trump University, Students Recall Pressure to Give Positive Reviews.” *New York Times*, March 11; Steve Eder (2017). “Trump University Lawsuits May Not Be Settled After All.” *New York Times*, March 6. The point of this entire footnote? Beware the “innovations” of an online world that is becoming increasingly predatory. See also Student (2013). “The Automated Epistemology of an iParadigm Shift.” Human Geography, pre-publication distribution version at [http://ibis.geog.ubc.ca/~ewyly/Private/g350/Student\(2013a\).pdf](http://ibis.geog.ubc.ca/~ewyly/Private/g350/Student(2013a).pdf), and then see http://ibis.geog.ubc.ca/~ewyly/Private/Redish_Letter_2015.pdf, which deals with the evolutionary dialectical epistemological violence between the cognitive predator drone turnitin.com and human capital ponzi schemes like <https://www.acemytermpaper.com>

⁵ Among the most frequently asked questions is, “Did I miss anything in class?” or, even more curiously, “Did I miss anything important in class?” Turn to your left, and introduce yourself. Turn to your right, and introduce yourself. Share contact information, and if you miss class, ask them for notes, advice, and suggestions.