CHAPTER 6

Sociology of Information Disorder
An Annotated Syllabus for Informed Citizens

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Introduction
Impetus

I have always been fascinated by looking at the big picture, the contexts in which our day-to-day lives play out. What is this world that we live in and why is it so? As I am an academic social sciences librarian, the particular context that has most captured my imagination is the role of information and knowledge in society. We live in interesting times; librarians are an information profession, yet the Information Age has perhaps brought more crises and questioning to our profession than strength and solidification. Has the internet made the library obsolete? Are librarians dinosaurs? Of course, *we* know the answers to those questions are a resounding "NO"—librarians and libraries are just as relevant as ever—but it seems that a shocking preponderance of the population might answer those questions with a "YES."

Looking at broad contexts means getting to the root of things, identifying the foundations upon which the everyday takes place. The modern American library, especially the public library, is an institution born of the Enlightenment. It is the embodiment of the philosophy that reason outweighs faith, that knowledge will guide us to a better place, and that information should be accessible to everyone. The library is a place of equality, an embodiment of the grand idea of democracy, that we should *all* have the right and opportunity to pursue the good life.

So, here we are at the present moment in a twenty-first-century information society. It is a world of massive inequality. The 2016 US presidential election brought to the forefront a reckoning of many different forces and, if nothing else, demonstrated the resentment and dissatisfaction of the general population with the status quo. The 2016 election was when *fake news* became a household term. The fake news phenomenon is a centerpiece that wraps up so many elements of our societal woes. As it is essentially an information problem, fake news is of utmost interest to librarians. Our job, after all, is to promote information literacy, to promote reason and education, and to bring order to information. Fake news underscores the continued relevance of librarians in modern society.

A key solution to the fake news problem that has been readily agreed upon is to promote information and media literacy.[1] But this solution alone is inadequate.[2] If we pinpoint our focus solely on information literacy, we risk missing the big picture. We risk framing the problem of fake news as a problem of *individual* literacy and cognitive biases. But it is so much more. High information illiteracy rates among the population are an issue of inequality; it is a systemic problem. The various societal systems and institutions, among them education, are so intertwined that we must look at the cores of our societal functioning. That is why I am proposing that we consider a *sociology* of information disorder. A sociological approach invites us to ask how individual problems are actually evidence of societal problems.[3]

Although fake news is the most recent and visible galvanizing force behind attention to information literacy, this chapter and syllabus are named for the concept of information disorder. *Fake news* is a contested term and names only one piece of the puzzle, whereas *information disorder* describes the big picture context. A 2017 Council of Europe report by Claire Wardle and Hossein Derakhshan with the title *Information Disorder* has only recently popularized the term and uses it to describe a set of false and misleading information types and the processes through which they are created and shared.[4] It is Wardle and Derakhshan's system-level approach and analysis that have inspired my adoption of the term.

The modern digitally networked information system is characterized by its vastness and the increasing production of information and data in multiple forms, primarily organized and accessed through opaque algorithmic filters. We live in an information society, wherein information and information technologies are central to our everyday lives, culture, and economy.[5] As information proliferates and becomes increasingly pervasive, our collective ability to manage and make sense of multiple messages and inputs is stressed and starts to break down. For example, complaints of "information overload" demonstrate the difficulty of sorting information and determining credible sources from false and misleading material. The recent proliferation of fake news and the accompanying sentiment that we are in "post-truth" times, where ideology has splintered reality, are symptoms of the inadequacy of any organizational system to bring order and coherency to

the information landscape. These symptoms also highlight the social aspects of knowledge and knowledge production and the relationships between information, knowledge, and power.

Form

The following content of this chapter takes the rough form of a syllabus that has been expanded with annotations that offer what are essentially abbreviated lectures that highlight points for discussion tied to the selected readings. The Sociology of Information Disorder has not yet been taught at any college; it is a proposal for a course of study that will provide a foundation and framework that can be used as a basis for engaging in reflective dialogue that seeks to understand the proliferation of "alternative truths" stemming from the overall state of our information infrastructure and our interactions and relationships with it. It is a starting point that readers may take in multiple directions: as a course of self-study, as a reading plan for a discussion group, as the inspiration for proposing such a class at your own institution, or as something to break apart and apply components to traditional one-shot library instruction sessions or workshops. This chapter also stands on its own as a discrete reading that will walk you through the range of topics that, taken together, make up an interwoven tapestry of the essential elements of information disorder.

In particular, for librarians, this syllabus will place the overarching goal of the modern library—to foster the creation of informed citizens—into the social contexts of our information society. It offers an expansion of core information literacy concepts through a critical investigation into the theoretical, historical, and societal underpinnings of the information system, primarily focused on the United States. Literacy and education, although incomplete solutions on their own, help to engage people in critical thinking about their world and form the basis of social change. We must be aware; we must engage in thoughtful critique of the status quo and identify common ground between political divides in order to identify positive courses of action.

In the following syllabus, I will start with a brief description of the course and then introduce each topic by explaining its importance and context. Along the way, I will invite you to consider a series of questions that we can ask in order to spark discussion and a deeper understanding of the issues. There is a wealth of literature that addresses course topics. This class presents an intentionally concise and careful selection of course readings that I believe will speak directly to the questions and topics and would be within reason to take on as extracurricular reading for the busy professional librarian. As a college course, it could be taught at the undergraduate or graduate student level; although selections may seem to make for a relatively light reading load, the concepts that are introduced are suitably complex for deep engagement at any level in a discussion-based course.

Should you desire additional readings, entire books could be read where I have selected chapters or documentary film adaptations, and the introductory "lecture" for each topic will introduce additional sources that should be considered as supplementary readings and pointers for further investigations.

The Syllabus
Introduction to the Course

Welcome to the Sociology of Information Disorder! In this course, we will explore how information disorder and the more particular phenomenon of fake news are social problems. We will use a sociological lens to analyze the modern information environment; broadly, to understand what we determine to be the "truth"— and specifically to examine the interplay of social reality, information, and the public good. A central theme that we will encounter throughout the course is the relationship between information, democracy, and capitalism. This will include examination of the role of information technology and other social forces in the current post-truth polarized era.

The ultimate goal of this course is to develop our capacity to be informed and engaged citizens who are lifelong learners and members of the voting public. Through a sociological discussion of information disorder, we will bolster our ability to *be informed* and knowledgeable; to navigate the available information in order to reach an understanding of current events and how our society works.

As a result of taking this course, you will be able to

- analyze the role of information and information technology in a democratic society
- recognize bias in information creators, interpreters, and processes of dissemination
- reflect on personal information behaviors and current awareness strategies and how they are shaped by social contexts

Schedule and Readings
SECTION A: BACKGROUND
Week 1: Information Disorder and Fake News

What is information disorder and fake news?

Most people who lived through the 2016 US election will be aware of the term *fake news* and some of its various definitions and applications. A good place to start discussion is to simply ask the question at the outset: *How do you define fake news?* Then look at popular uses of the concept. These might include articles identified by BuzzFeed News as the top-performing fake news stories of the 2016 election,

the GOP's Fake News Awards, and congressional investigations into disinformation and social media advertisements.[6] From a sociological and constructionist perspective, the many different people and institutions naming fake news as a negative issue are what define it as a social problem.[7]

Fake news is a manifestation of a wider dis-ease with the state of information and related digital technologies. The concept of information disorder takes into account this broader perspective and accepts as a premise that the present-day digital networked information systems contain a confused jumble of information of varying levels of quality that is difficult to navigate. As coined by Wardle and Derakhshan, the term *information disorder* encompasses the multiple forms of false and misleading information, the roles and actions of information creators and readers, and the processes through which information is shared.[8] Essentially, information disorder names and describes the fake news phenomenon that rose to prominence in the 2016 US election: an abundance of mis-information, dis-information, and mal-information that spreads easily via digital technologies and serves to negatively influence public debate and increase ideological divides.

The report by Claire Wardle and Hossein Derakhshan, *Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making*, will in fact provide us with a sort of framework for this class.[9] The first part of the report grapples with definitions of fake news and information disorder and introduces many of the topics that will be investigated further in later weeks. Likewise, in this class we will begin by contextualizing the problem of information disorder in modern US society (although *Information Disorder* deals with global issues, it is written in service of the Council of Europe). We will then take up components of Wardle and Derakhshan's conceptual framework dealing with the "phases" and "elements" of information disorder. Elements are the agents, messages, and interpreters of information. Phases are the life cycle of information: creation, production, and distribution. The second section of the syllabus will focus on the traditional dominant information creators and the messages they send. Next, in the third section, we will shift to looking at the readers and interpreters of information. In the fourth and final section of the course, the processes by which information is found and shared in the digital environment will be considered.

The report *Dead Reckoning* by Robyn Caplan, Lauren Hanson, and Joan Donovan serves to provide another perspective in answering the question regarding definitions of *fake news*.[10] Based on analysis of the term's popular usage, the report identifies overarching categories detailing how *fake news* is actually defined and used by various stakeholders. New points for discussion deal with insights to consider the different fears and social tensions that are exacerbated by fake news. The power to define what is "real" versus "fake" has serious implications. This is apparent in how the term is leveraged to inspire trust (or distrust) in information sources, as well as in how the conception of fake news is used to find solutions to the problem.

Readings

Pages 4–28. Wardle, Claire, and Hossein Derakhshan. *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking.* Council of Europe Report DGI(2017)09. Strasbourg, France: Council of Europe, October 2017. https://rm.coe.int/information-disorder-report-november-2017/1680764666.

Caplan, Robyn, Lauren Hanson, and Joan Donovan. *Dead Reckoning: Navigating Content Moderation after "Fake News."* New York: Data and Society Research Institute, February 2018. https://datasociety.net/pubs/oh/DataAndSociety_Dead_Reckoning_2018.pdf.

Week 2: Threat to Democracy

Why are information disorder and fake news perceived as a threat to democracy?

President Trump, shortly after taking office in 2017, called the mainstream news media "the enemy of the people" and blocked several major news organizations from attending a White House press briefing.[11] This was met with hurrahs from some and horror from others.[12] Why were Trump's statement and action incendiary?

Undermining and promoting distrust of the news media is in direct conflict with the democratic value of a free press and an informed citizenry. Responsible citizenship entails the ability to vote in your best interests based upon awareness of the issues. The core values of institutions that are designed to foster the public good are explicitly tied to the ideal of the informed citizen. Institutions and professions such as those represented by the American Library Association, the American Association of Colleges and Universities, and the Society of Professional Journalists all embrace a set of values and ethics that codify supporting roles in the democratic endeavor.[13]

The *Code of Ethics* of the American Sociological Association likewise includes the principle of "social responsibility" and the purpose of sociological science to serve the public good.[14] C. Wright Mills is well known to sociologists for his book, *The Sociological Imagination*, which expresses the distinctive ethos of the discipline to understand personal troubles as public issues and to consider the impact of broader social and historical contexts on personal situations. In the final chapter of *The Sociological Imagination*, "On Politics," Mills discussed the intersection of the values of sociologists and public policy.[15] The discipline of sociology embodies certain political ideals, including the value of truth and fact, reason, and freedom. These are universal democratic values. Yet, in practice, US society does not function as a true democracy, and perceptions of the facts are routinely manipulated to serve the aims of the powerful over the public good. Mills reasoned that sociologists must therefore practice the "politics of truth" and promote education, awareness of social reality, critical thinking, and self-knowledge.

Democratic values and ideals heavily feature the primacy of public knowledge and educated voters. In his article on "The Social Construction of the 'Informed Citizen,'" Michael Schudson called into question the ideal of the informed citizen

as just that—as an ideal that has never been a true reality.[16] Schudson even questioned the notion that the US founding fathers had any faith at all in the concept of an informed voting public or a free press. He maintained that this ideal was a product of Progressive Era reforms and sets up an impossible standard of political virtue and citizenship. What does this mean for those professions and institutions that work for the good of public knowledge?

Readings

Mills, C. Wright. "On Politics." In *The Sociological Imagination*, 177–94. New York: Oxford University Press, 1959.

Schudson, Michael. "The Social Construction of the 'Informed Citizen.'" *Good Society* 9, no. 1 (1999): 30–35. https://www.jstor.org/stable/20710919.

Week 3: Why Now? This Isn't New!

How has the internet shaped the current fake news problem?

The previous week's readings highlighted the historical and persistent problem of educated publics and democratic functioning. There are also many historical examples of false and fabricated news stories.[17] There have been other periods in recent US history wherein significant attention has been turned to the problem of information quality, such as the era of yellow journalism in the 1880s–1890s, jazz journalism in the 1920s–1930s, and new journalism in the 1960s–1970s.[18] However, the current era crystallizes the intensity of previous trends in "truth decay" as well as having a notable increase in the inability of people to agree on the facts.[19]

The current fake news and information disorder problem is irrevocably tied to the shift in our information environment to the networked digital sphere. There are both more information created and made available as a result of digitization and more options for its dissemination, retrieval, and consumption. For example, consider the role of social media in "trending" fake news stories and in providing a platform for Donald Trump to bypass traditional news media. A key part of the change in information is the shift in how people access information from human gatekeepers to digital gatekeepers. Where we used to rely primarily on librarians to organize information and help us retrieve it and editors to choose which news stories to share with us, we now increasingly rely on machines and algorithms to filter and present information to us. What remains the same and what has changed with this technological shift in how information is produced and accessed?

In "Before Google: A Pre-history of Search Engines in Analogue Times," Anton Tantner gave us a nuanced look at a variety of historical human-mediated tools and professionals who brokered and provided access to information.[20] What sort of values did human information gatekeepers embody? The motives of these people were mixed, many with clear business interests rather than altruistic purposes. Not all people in the business of information belonged to professional societies dedicated to the public good. Even in information systems designed to

benefit society, such as public libraries, classification systems such as Dewey Decimal reflected an overtly Western and Christian viewpoint to the ordering and value of information.

Moving us to the modern techno-historical context, the internet was created with public funds by people who sought democratic purposes. The NSFNet, a precursor the World Wide Web, had an acceptable-use policy that explicitly cited its utility as a public good. Things changed in the early 1990s when the federal government started to privatize the internet. This sparked significant economic growth with the dot-com boom, and lack of regulation has seen the rise of technology industry monopolies in more recent years. Robert McChesney laid out this history of the internet in "Digital Disconnect" (a documentary film based on his book of the same title) and focused on the role of unchecked capitalism in fostering an environment of information disorder and fake news.[21] The central question McChesney asked is: Has the internet revolution been good or bad for democracy? There are arguments for either a yes or no answer, but McChesney characterized the internet revolution as co-opted by corporate interests at the expense of the public interest. The technology of the internet has been used to disrupt the commercial basis of news production from control of advertising revenues by the content producers themselves to the middle men of internet search and filter tools (i.e., search engines and social media) that control our access to information.

Readings

Tantner, Anton. "Before Google: A Pre-history of Search Engines in Analogue Times." In *Society of the Query Reader: Reflections on Web Search*. Edited by Rene Konig and Miriam Rasch, 121–38. INC Reader 9. Amsterdam, Netherlands: Institute of Network Cultures, 2014.

McChesney, Robert W. "Digital Disconnect: How Capitalism Is Turning the Internet against Democracy." Jeremy Earp, director. Video, 1:22:08. Northampton, MA: Media Education Foundation, 2018. https://kanopy.com/video/digital-disconnect.

SECTION B: INFORMATION CREATORS
Week 4: Attack on the Mainstream Media

Are the mainstream media biased?

A component of President Trump's attacks on the mainstream media as being fake news is the accusation of liberal bias. As we learned from Caplan, Hanson, and Donovan, this is a long-standing critique.[22] Many people agree that the news media reflect some sort of bias and are not completely neutral, particularly in their coverage of political issues.[23] The website AllSides.com categorizes news sources by media bias ratings based on crowdsourcing opinions of perceived bias combined with third-party data such as academic research studies.[24] These include the popular "UCLA study" by Groseclose and Milyo,[25] but there are significant critiques regarding the efficacy of their approach and the scientific measurement of media bias in general.[26] Can you measure bias?

"The Myth of the Liberal Media," a documentary film based on the insights of Edward Herman, Noam Chomsky, and Justin Lewis, offers a direct retort to the well-known assertion that the mainstream media is liberal.[27] A main component of the critique is structural, focusing on corporate ownership of news outlets. Similar to McChesney's analysis,[28] Hermann, Chomsky, and Lewis pointed to the interests of capitalists as having a negative effect on the promise of news information to foster a democratic society. The overall filter of what counts as news is set by corporate powers, effectively censoring true democratic debate. In this analysis, any variation in partisan policy is a distraction from the maintenance of the power of big business; media treatment of identity and social issues (e.g., abortion) is swept under the rug as largely irrelevant to the overarching conservative elite paradigm on offer from the mainstream news media.

Michael Schudson, in his writings on the *Sociology of News*, offered a more nuanced approach to considerations of media bias, presenting arguments from both the political left and the right and giving them more thorough attention.[29] He directly addressed Chomsky and Herman as putting forth hyperbolic arguments and gave more agency to journalists and readers. The overall issue, Schudson asserted, is not about bias but rather framing—that is, the selection and emphasis offered by the media on what counts as news. Bias in the news does not necessarily come from corporate or ideological direction, but from the constraints and distortions inherent in the medium itself—complete objectivity in providing a picture of the world is simply not possible.

Readings

Sender, Katherine, Sanjay, Talreja, and Sut Jhally, dirs. "The Myth of the Liberal Media: The Propaganda Model of News." Video, 60:00. Northampton, MA: Media Education Foundation, 1997. https://kanopy.com/node/41497.

Schudson, Michael. "Does News Matter? (Media Effects, Part 1)." Chapter 2 in *The Sociology of News*, 2nd ed., 8–25. Contemporary Societies. New York: W. W. Norton and Co., 2011.

Schudson, Michael. "Media Bias (Media Effects, Part 2)." Chapter 3 in *The Sociology of News*, 26–56. Contemporary Societies. New York: W. W. Norton and Co., 2011.

Week 5: All Governments Lie

What is the role of journalism in a democratic society?

Last week, we started a discussion of the extent to which the news media are able to uphold a neutral stance and allow for fulsome democratic debate. The need for the news to produce a profit in the US market-based model certainly has impacts on journalism, and the recent disruption by the internet of the long-standing advertising- and subscription-based business models has added new concerns. Rupert Murdoch, the head of News Corp, has advocated for Facebook and Google (which now take the bulk of advertising profits) to pay trusted publishers a carry-

ing fee for their content in order to promote quality information.[30] The Facebook Journalism Project and the Google News Initiative show acknowledgement of these economic and cultural shifts in the way news is funded and accessed.[31] In order for journalists to do their work in any capacity, it must be supported. Who should support journalism?

There are pressures from both corporate and government powers in writing the news. Journalism is commonly called the "fourth estate" for its role as government watchdog ensuring democracy and the public good.[32] Therefore, in order to uphold the integrity of the news, journalists need agency and independence from economic and political interests. In the documentary "All Governments Lie," the question of journalistic independence is examined through the legacy of investigative journalist I. F. Stone and his independent newsletter, *I. F. Stone's Weekly,* which ran from 1953 to 1971.[33] This documentary offers another powerful rebuke of the mainstream media, this time through the eyes of journalists. Despite the dominance of large media corporations, investigative independent journalism is still part of the news environment. Although many independent sources must be intentionally sought out by readers, there are powerful examples of investigative journalism working in the mainstream press, such as Watergate and Snowden. However, the overall critique offered by "All Governments Lie" is well-exemplified in the example of the *New York Times* and other media outlets acting complicitly in the now-debunked fallacy on the irrefutable evidence that there were weapons of mass destruction found in Iraq, and the role of mainstream media in keeping out voices that were critical of the war effort.

Whereas "All Governments Lie" incites emotional reaction to its claims, Michael Schudson's *Sociology of News* offers a more measured discussion of the role of journalism in democracy.[34] He disambiguated the conflation of journalism equaling democracy by pointing out that news exists in all sorts of political regimes and laid out the risks of censorship by market and government forces. Schudson walked through examples of the US government grappling with interpretation of the First Amendment ("Congress shall make no law … abridging the freedom of speech, or of the press"), centering on the question of whether or not there is a role for state intervention and regulation to ensure open and equitable public discussion. (Schudson extended this to discuss the roles of moderators to safeguard public debate by enforcing normative and fair discussion. The question of moderation in online forums has been raised within the fake news phenomenon: e.g., Facebook's and Twitter's attempts at enforcing community standards; whether or not Google should actively curate results).[35] The dominant "liberal-libertarian" philosophy is marked by the government's hands-off approach to the news media; the efficacy of this method is debatable. In its ideal democratic role, journalism supports the public sphere and community discussion. But although the news has great potential to support democratic ideals, the very same tool can be used toward antidemocratic aims: "There is no natural law declaring that good infor-

mation will triumph over bad, but nor does the opposite hold, a Gresham's law for information that bad information drives out good."[36]

Readings

Peabody, Fred, dir. "All Governments Lie: Truth, Deception, and the Spirit of I. F. Stone."
     Video. New York: First Run Features, 2016. https://kanopy.com/node/354382.
Schudson, Michael. "Law, Democracy, and News." Chapter 11 in *The Sociology of News*,
     188–204. Contemporary Societies. New York: W. W. Norton and Co., 2011.

Week 6: Propaganda

Who creates propaganda and why?

Since the 2016 US election, the characterization of fake news and the news generally as *propaganda* is a way to name anxiety and dissatisfaction with the current state of the media.[37] As a tactic used by the Russians, propaganda is named as a tool of information warfare, although the official terminology is *information operations*.[38] Broadly speaking, *information management* is the practice of producing and disseminating information with the intent of persuading public opinion that is undertaken through public relations and advertising for corporate and government interests.[39]

The documentary film "Toxic Sludge Is Good for You" (based on a book of the same name by John Stauber and Sheldon Rampton) profiles the public relations industry.[40] It provides a historical overview of the development of the industry, including the early PR guru Edward Bernays. Bernays supported the philosophy of propaganda as an essential element of democracy that fulfills the public good by leading citizens to support the best interests of the nation. The stance of the film, however, is that the public relations machine and the government and corporate clients it supports are not actually working for the public, but rather for their own vested interests. PR is in the business of "massaging reality" to insure that your interests align with its client's interests. This is achieved through a variety of strategies and tactics, such as "video news releases," or prepackaged news stories provided to local TV stations, provision of experts for journalists to interview, and the creation of front groups that claim to be public interest advocates.[41] An interesting vignette that takes up the issue of official interpretation of the First Amendment deals with Texas food disparagement laws, wherein industry lobbyists were able to usher through the passage of laws to effectively limit speech that criticizes agribusiness. The powerful reach of the PR industry to control media messages impacts the available information on controversial issues, such as genetically modified foods, resulting in censorship by the market.

We return to Wardle and Derakhshan's *Information Disorder* report for their "elements of information disorder" model.[42] This model analyzes the agents, messages, and interpreters of dis-information, mis-information, and mal-information through a lens that looks at recent political events and the digital informa-

tion environment. Wardle and Derakhshan present a wider range of producers of propaganda and other forms of information disorder, including both official and unofficial actors with varying motivations and levels of sophistication, from state-organized Russian social media campaigns with political aims to suburban entrepreneurs looking to profit from clickbait articles. Another motive is based in the social and psychological realm stemming from highly partisan identity-based agents who purposefully create and spread divisive content, such as the activities of online alt-right communities.

Readings

Smith, Jeremy, Loretta Alper, Margo Robb, and Sut Jhally, dirs. "Toxic Sludge Is Good for You: The Public Relations Industry Unspun." Video. Northampton, MA: Media Education Foundation, 2002. https://kanopy.com/video/toxic-sludge-good-you-public-relations-industry-unspun.

Pages 29–41. Wardle, Claire, and Hossein Derakhshan. *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Council of Europe Report DGI(2017)09. Strasbourg, France: Council of Europe, October 2017. https://rm.coe.int/information-disorder-report-november-2017/1680764666.

SECTION C: INFORMATION INTERPRETERS
Week 7: This I Believe

What do I believe to be true and why?

If media bias is one side of the coin, then personal bias is the other. Social psychology is replete with research on a multitude of cognitive biases that we rely on to interpret information and how we make decisions and reason based on our desire to confirm preferred outcomes.[43] We may unconsciously limit our exposure to or perception of certain information that conflicts with our beliefs. Sociologists talk about the social construction of reality, which means that what we take for granted as normal in our world may vary by place and time and is upheld by institutions and interpersonal relationships. News and other sources of information are part of our social reality and shape our view of the world.

In "Information and Propaganda," Jacques Ellul wrote on the difficulties of being informed, the limits of objectivity, and the need for propaganda in a world of limited attention and overwhelming information.[44] He cautioned against the view that all propaganda is negative and saw it fulfilling a legitimate purpose. In a prescient commentary, Ellul noted that any claims that a superior tool for "pooling all world information" would have little effect on solving the problem of objective selection and presentation of all the relevant facts.[45] Information and propaganda are essential to social awareness.

Ellul commented that an advantage of propaganda over fact is the use of myth.[46] The power of myth is obvious in national narratives, such as the US story of the self-made man and the idea that one should "pull yourself up by the boot-

straps." This American Dream story persists in the face of illogical aphorisms, a legacy of slavery, and empirical evidence such as sociological studies revealing the persistence of racism and other structural inequalities.[47] It persists because the American Dream story provides an emotional and moral framework for describing how we believe our society should work, it models normative values and behaviors, and it legitimates social hierarchies (e.g., people are poor because they don't work hard enough).[48]

It seems as though continued belief in the American Dream as the dominant reality of our society requires either ignoring evidence to the contrary or compartmentalizing it. How is it that people can believe in two conflicting views at once? The documentary film "American Denial" addresses this question through the story of Gunnar Myrdal's 1944 study of the so-called "Negro Problem" in the Jim Crow–era Southern US and an investigation into the unconscious and implicit biases that continue to exist today.[49] Myrdal found that the problem of black poverty and race-based social tensions was actually a problem of white racism supporting structural inequalities through discrimination and exclusion. The narrative of the American Dream was used against black people to legitimate racism and perceived racial inferiority—that is, black people should be able to bring themselves out of poverty if only they would work hard enough. This sentiment was internalized by both whites and blacks. "American Denial" asks us to take a look at our beliefs and where they come from and interrogate the power and impact of myths.

Readings

Ellul, Jacques. "Information and Propaganda." *Diogenes* 5, no. 18 (June 1, 1957): 61–77. https://doi.org/10.1177/039219215700501805.
Herbes-Sommers, Christine, Kelly Thomson, and Llewellyn Smith, dirs. "American Denial." Video. Boston: Vital Pictures, 2014. https://kanopy.com/node/175061.

Week 8: Truth Decay

How do public discourse and the social environment affect individual ability to discern the truth?

It's a popular observation that we have entered the post-truth era.[50] Even if myths and propaganda have been a part of the social landscape for a long time, there is a sense that there is something different about our current moment. In week 3, we were briefly introduced to "truth decay" with respect to historical phases of low-quality journalism and the idea that the internet has compounded issues of fake news and information disorder. *Truth Decay* is a book-length report by Jennifer Kavanagh and Michael D. Rich, published by the RAND Corporation, that sets out to provide *An Initial Exploration of the Diminishing Role of Facts and Analysis in American Public Life* (as the subtitle explains) and identify gaps in research to set an agenda for further investigation and analysis.[51] Truth decay is also a set of trends that describe the current state of discourse in the US. Like the concept

of information disorder, truth decay seeks to contextualize the fake news problem within a broader framework. Therefore, the question of our individual capacities to discern fact from opinion, emotion, and propaganda and form beliefs and gain knowledge is answered in the social and public realm.

Kavanagh and Rich defined four trends as comprising truth decay:

1. "Increasing disagreement about facts and analytical interpretations of facts and data"
2. "A blurring of the line between opinion and fact"
3. "The increasing relative volume, and resulting influence, of opinion and personal experience over fact"
4. "Declining trust in formerly respected sources of factual information"[52]

Chapter 2 of the report provides examples and evidence to substantiate the existence of these trends, although this is optional reading in the interests of keeping homework to a reasonable amount. For the same reason, we will also skip over chapter 3, which is devoted to examining historical examples supporting the claim that modern truth decay is different in degrees of severity from truth decay in the past. The final chapter of the report, dealing with recommendations for future research, is also out of scope for us this week.

In chapter 4, Kavanagh and Rich looked at the drivers of truth decay.[53] These are the societal and technological forces that are behind the phenomenon, as well as the interplay between individual cognition and social reality. How do cognitive biases impact social life? They may form from the internalization of ideological worldviews, and they may be institutionalized as many individuals come together in organizations that enact policy and build technology. Other social forces driving truth decay include the modern digital information system; the educational system and constraints on teaching civics, media literacy, and critical thinking; and political and sociodemographic polarization. Behind these drivers are the agents of truth decay. As stated by Wardle and Derakhshan, agents are the entities that produce and distribute information. Kavanagh and Rich identified categories of agents as being the media, academic and research organizations, political actors and the government, and foreign actors.

The final part of the truth decay system is its outcomes. Chapter 5 makes the direct claim that truth decay threatens democracy by describing a set of key consequences: the erosion of civil discourse, political paralysis, alienation and disengagement, and uncertainty.[54] Insight into these consequences helps to identify possible solutions and areas for improvement. How do we counteract decay and build trust in a common truth?

Readings

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Week 9: Establishing Credibility

How do I know what information to trust?

In research methods classes, we learn the importance of empirical evidence and the necessity of citing sources to legitimate our claims. The ability to evaluate information sources and determine credibility is a key information literacy skill. Credibility is determined based on the perceived trustworthiness and expertise of a source and is further operationalized as a series of discrete dimensions in order to measure the credibility of a source and the ability of a person to make an assessment of credibility.[55] In the practice of librarianship, attempts to convey the complex process of source evaluation have been critiqued for overreliance on checklists of credibility indicators. Although such approaches are essential to conceptualizing and defining credibility, real-world interaction with information sources doesn't always afford the time or motivation to consciously run through a set of indicators.

In actual practice, people rely on a series of cognitive processes of which we are not always aware. The article "Misinformation and Its Correction: Continued Influencing and Successful Debiasing" by Lewandowsky and colleagues discusses both factors in individual cognition and societal mechanisms that lead to the holding of false beliefs and concludes with a set of practical recommendations for effective communication.[56] This article is distinctive in its well-rounded approach to the examination of misinformation, beginning with the origins and types of misinformation, such as government and corporate interests and the role of the media (reinforcing our previous readings). Lewandowsky and colleagues made the point that false beliefs are actually more harmful than ignorance; the latter is more easily corrected than the former. This confirms Ellul's assertion that propaganda requires information.

After this introduction, the authors examined a set of cognitive strategies that we use to assess information, determine credibility, and form our beliefs. In consideration of the difficulties of correcting misinformation, the need to connect to existing mental models is important. This includes the power of narrative and stories: people need a coherent story; they need familiarity either through repetition or through easy connection to existing worldviews. Corrections are less likely to

hold or may even backfire when they clash with personal ideologies. Understanding how misinformation persists and can be corrected is essential for those working in the public interest, especially in a world of information disorder.

Stephanie Edgerly, in her article "Seeking Out and Avoiding the News Media: Young Adults' Proposed Strategies for Obtaining Current Events Information," provided us with some specific examples of information evaluation strategies in the context of obtaining current events information.[57] She found that among the young adults in her study, two sets of strategies emerged: the first is based on use of familiar news sources, the second on functional alternatives to directly consulting the news media. Previous experience and practice in information literacy skills were a necessary prerequisite to have achieved knowledge of and familiarity with credible sources and evaluation strategies, revealing the social capital required to successfully navigate the news media and inequalities in education and information access. Navigating the "high choice media environment" of the internet without pre-existing knowledge of specific quality sources meant reliance on Google, social networks, and constrained conceptions of credibility. While all the study participants were aware of the need to be skeptical and evaluate the trustworthiness of the information they locate online, the sophistication of their strategies varied. Encouraging skepticism of sources goes only so far in helping people evaluate information; understanding credibility and developing self-awareness of personal beliefs and their impact on perceptions of trust will go a lot farther.

A third reading rounds out this week, by circling back to Wardle and Derakhshan and the last component of the "elements" of information disorder: the interpreters.[58] In an echo of Lewandowsky and colleagues, Wardle and Derakhshan walked us through factors in individual processing of information. However, the focus here is on cultural and social theory. On social media, the reading and sharing of information can be a public activity, implicating performance in social interactions and group belonging. The difficulty of information overload—making many decisions about source credibility in a continuous and fast-paced stream of information—is recognized as a reason for reliance on mental shortcuts and lack of careful analysis of information. If I trust my friends and family, can I also trust the information that they share?

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SECTION D: THE INFORMATION LANDSCAPE
Week 10: Just Google It

How do algorithms impact what we know?

For many of us, the primary entry point to information on the web is a search engine or a social media site. Algorithms are the technology that powers what we see on these sites: the list of results or the information feed. These algorithms mediate much of our experience with the digital world, and awareness is being increasingly drawn to the need to critically examine the tools that guide us to sources as much as we need to evaluate the credibility of the sources themselves. When we rely on Google to tell us what information is most relevant to our query, we expect it to offer us a fair picture of the world.

In December 2016, Carole Cadwalladr published a series of articles in *The Guardian* criticizing Google for allowing right-wing extremist websites to dominate top-ranked search results, particularly on the topic of Holocaust denial.[59] She also condemned the failure of governments to regulate Google as a media company that has responsibility for its content. Google prefers to deny responsibility for its results and claim neutrality behind the shield of algorithms—impartial, unbiased artificial intelligence. We discussed how the US government has typically shied away from media regulation; Cadwalladr pointed to the lobbying influence Google invests in the US and other countries.[60]

In fact, the issue of anti-Semitic hate groups receiving top rankings on Google is long-standing. In this week's reading from *The Googlization of Everything*, Siva Vaidhyanathan raised the same example from 2004 when the US Anti-Defamation League complained about hate sites getting top-ranked spots for searches on "Holocaust" and "Jew."[61] Vaidhyanathan denied Google's assertions of computer-generated impartiality as false. Search ranking by its very nature must be biased to favor certain criteria over others. This is not to say that these biases are bad or wrong; they are simply necessary. (See also Lewandowski for a focused investigation of search engine bias.[62] Although Vaidhyanathan did not provide a direct list of biases, he discussed various ones throughout the chapter, such as weeding out pornography and spam, favoring online popularity via hyperlinks, user location, user history and profiling, and currency.) Google's algorithm is proprietary, but it chooses to hide even basic information about how search works, preferring to maintain a simple interface and promote the illusion of magic: Google as the oracle helping us to seek meaning in the world. Vaidhyanathan named the ethos of Google (its founders, as well as many of its employees and users) as "techno-fundamentalism," a blind faith in technology and excessive hubris in the ability of technology (and, by extension, software engineers) to provide us with the truth in the interest of the public good.

Tarleton Gillespie, writing on "The Relevance of Algorithms," questioned this technological faith.[63] The reliance on algorithms for decision-making and information gathering is a momentous turn in the history of knowledge and requires examination of their powerful role in shaping our social and cultural worlds. Gillespie offered a set of conceptual dimensions that explain the interplay between the creators and users of algorithm-based tools and the socio-political implications of the resultant shifts in public knowledge. The first dimension is the "patterns of inclusion" as to what makes up the database upon which the algorithm works, including what is included in and excluded from the collection of items, as well as how they are categorized and described. Second, "cycles of anticipation" seek to understand users through building user profiles and tailoring results to satisfy both a general understanding of human behavior and psychology and a particular understanding of the individual user. Third, "the evaluation of relevance" considers the inherent biases or criteria that must be programmed into algorithms for them to function and how those choices are made. Given this, the fourth dimension follows as the false "promise of algorithmic objectivity." The quest for neutral objectivity is essential to public trust and legitimacy. "Entanglement with practice" is the fifth dimension, focused on how users modify their behavior to fit the algorithm, both in the mannerisms of search and in the creation of content. Finally, algorithms result in "the production of calculated publics"— shaping the public in their own image to fit the parameters of the system and then reflecting ourselves back to us (as in the applications of big data). As algorithms have become part of our everyday lives, it is worth questioning their fundamental logic and considering their impact on how we gain knowledge about the world.

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Week 11: Surveillance Capitalism

What is the extent of digital surveillance and how does it impact information-seeking and online behavior?

Privacy is dead, or as the popular declaration from Scott McNealy, CEO of Sun Microsystems, in 1999 goes: "You have zero privacy anyway. Get over it."[64] Another popular sentiment is that we shouldn't need privacy if we don't have anything to hide, that giving up privacy for security and the conveniences of modern life is a

fair trade. Despite this widespread acknowledgement that very little privacy is left in the world, it's not clear that everyone understands the realities of the situation. Take, for example, the numerous individuals who post their crimes on social media and brag about getting away with them, only to then be apprehended.[65] It's easy enough to laugh at the stupidity of the bank robber who posts the story of her crime on YouTube and feel that justice has been properly served when she is sent to jail, or to feel relief that national intelligence agencies are continually monitoring communications and activities of suspected terrorists to protect us from another major attack. But what about arresting people for criticizing the police and engaging in civil protest activities?[66] What is the line between justified surveillance and prosecution and impinging on our right to privacy and free speech? What are the consequences for our freedom and liberty if we are constantly being monitored and tracked?

Privacy brings with it a sense of personal control and agency. With surveillance, someone else is in charge. "Everything's Under Control" is the title of a documentary film by Werner Boote that investigates "Surveillance, Privacy and Security in the Digital World."[67] Boote traveled around the world talking to regular people and experts from all sides of the equation about surveillance, seeking to answer these questions: "When are we being surveilled? How? Where? By who? Why? Why us?" And most importantly: "Where is all this leading to?" We follow Boote around the globe on security cameras, by tracking his cell phone location and selfies on social media, with help from Mimi (his personal digital assistant) keeping him on schedule. Boote was curious and endearing, but even his polite manner wouldn't get him into National Security Agency facilities. He made attempts in Menwith Hill, England, and in Bluffdale, Utah. When Boote finally managed to get a brief interview with NSA workers in Bluffdale, after assiduously following cars leaving the facility for two days, it was only a brief informal conversation in a parking lot. The NSA employees are blacked out, and they refused a group selfie photo request with this explanation: "I prefer my privacy…. I don't believe in social media." Earlier, the sociologist Zygmunt Bauman described how privacy was a value that meant freedom from coercion, but now privacy seems to mean loneliness and abandonment: the tantalizing promise of technology is to never be alone. Boote concluded that the price may be too steep, that surveillance brings with it the potential for total control, behavior modification, and machine-mediated decisions.

Shoshana Zuboff is not optimistic about a surveillance saturated world either. In "Big Other: Surveillance Capitalism and the Prospects of an Information Civilization," she described how a new model of capitalism has emerged based on the logic of data accumulation and charted the negative potential of its current trajectory, if left unchecked.[68] Using documents authored by Google chief economist Hal Varian as a point of analysis, Zuboff theorized on the social aspects of big data. Too often, big data and the surveillance processes that create it are viewed with technological determinism; the surveillance-for-service exchange that we enter into to use Google and other digital tools is viewed as inevitable. Zuboff described

the shift to ubiquitous computer mediation of our daily lives and the opportunistic and indifferent attitude of Google in creating, collecting, and capitalizing on our data. Surveillance capitalism negates the social contract between employer and employee that (although fraught) brought us Ford's "five dollar day" and the rise of the middle class. Whereas Ford saw its employees as its customers, Google does not see this same relationship. Google's customers are advertisers; its users are there to be used without meaningful reciprocity and consent. The monitoring and datafication functions of Google and its ilk have created the Big Other. As opposed to the centralized Big Brother, Big Other is a "ubiquitous networked institutional regime that records, modifies, and commodifies everyday experience… with a view to establishing new pathways to monetization and profit."[69] The power of surveillance capitalism is in its potential for behavior modification in the interests of Google and its clients. Even if control and manipulation were wielded by benevolent powers, would that be a free society?

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Week 12: Fakebook

What is the impact of social media on public information?

Social media exemplifies the issues we've been discussing so far in this course: the role of algorithms in promoting content, surveillance, targeted advertising, the spread of propaganda, increasing pressures on journalists, difficulties establishing credibility and staying informed, and the decay of public discourse. Since the 2016 US election, a backlash has emerged against the culture of social media and corporate technology monopolies. (There are many examples of this; particularly illustrative are a series of articles from former tech executives.[70]) The largest social network, Facebook, has been spotlighted at the center of the information disorder problem. Since the Cambridge Analytica scandal, Facebook's role in spreading political propaganda was made unambiguously clear.[71] Although Facebook CEO Mark Zuckerberg initially denied that Facebook could have had anything to do with the spread of fake news, he eventually relented. Facebook Security released a report in April 2017, *Information Operations and Facebook*, which explains how "false news" and "false amplifiers" spread on the social network and steps Facebook is taking to promote real civic engagement.[72] After Zuckerberg's apology tour, Facebook released a short film called "Facing Facts" in order to ease worries over Facebook's commitment to fight misinformation on its platform.[73]

Even if Facebook finds a way to filter out blatant disinformation (which may well be impossible[74]), other issues inherent to the medium are likely to remain. Wardle and Derakhkshan raised the "challenges of filter bubbles and echo chambers" in their discussion of the digital information environment.[75] Facebook and other virtual spaces function as a public sphere, a place where people can come together to share and discuss. However, the effect of digitization has been fragmentation and concentration of like-minded people in insular networks. As local newspapers are increasingly replaced by personalized news feeds, people have less common ground, and polarization increases. Wardle and Derakhshan's report emphasizes that personalized social media reinforces the ritual function of sharing and consuming information to (re)create identity and social connections, favoring the emotional over the rational.

The irony of Facebook as a public sphere is that it is a privately owned company. Zeynep Tufekci characterized the architecture of the internet under Facebook and Google as more "a world of algorithmic walled gardens" than an open public commons.[76] Her article "As the Pirates Become CEOs: The Closing of the Open Internet" interrogates the structure of platforms that rely on ad-financing (or what Zuboff calls surveillance capitalism) and implications for the public sphere. Tufekci affirmed much of Zuboff's critique, pointing out the asymmetric power relations between platform and user and the downsides of the analytic power of data-driven advertising. Although social media played a role in creating a critical mass for social movements, such as the Arab Spring protests in 2011 and Black Lives Matter, activists are simultaneously aided and constrained by social media's digital architecture.[77] There are costs and benefits to corporate-owned social media: are the benefits worth the costs?

Siva Vaidhyanathan remains a Facebook user despite his critique of the social media platform in *Antisocial Media: How Facebook Disconnects Us and Undermines Democracy*.[78] His book provides a (recent) historical analysis of Facebook's role in our social and political lives, both in the US and internationally. An interrogation of Facebook's business practices illustrates the tools and methods by which it has facilitated the splintering of a common discourse and the spread of misinformation. For example, a profile of how Facebook and its Free Basics program (which provides internet access to poor citizens in foreign countries through mobile devices that offer Facebook and other Facebook-approved sites for free and charge for access to other parts of the internet) has been leveraged by authoritarian regimes demonstrates that the power of Facebook can be used to oppress and silence. The effect of limiting internet access to Facebook results in the ability of powerful actors to exert significant control of the information environment.

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Week 13: Synthesis

What is the relationship between (digital) information and power?

Our final reading for the class is esoteric in nature, almost poetic. Byung-Chul Han's slim volume of essays, *Psychopolitics: Neoliberalism and New Technologies of Power,* merges sociological and philosophical thought.[79] The essays are beautifully translated from the German language by Erik Butler; this is a different type of reading that requires a pause from the fast-paced digital world that is at the center of this written meditation, but you will find reward in understanding key points that synthesize what we have discussed in this class. Han's work is intended to serve as a reflection point regarding the intellectual ground we have covered thus far and as an opportunity to consider your own opinions and reactions to his social critique.

In "The Crisis of Freedom," the tension between individual freedom and the freedom of capital is explored in the context of the digitization of reality, wherein the production of self is the production of data. Our reliance on the digital constricts our free will, as big data aims to predict (and thereby shape) our future actions. We are subjugating our freedom to digital *devotion*. The handheld smartphone "works like a rosary … [and a] … confessional," and both "serve the purpose of self-monitoring and control." "Facebook," wrote Han, "is the church…. *Like* is the digital *Amen*."[80] "Smart Power" and "Emotional Capitalism" describe how psychopolitics are based on understanding how to satisfy human nature and appeal to our psyche; they give us one level of our needs and distract us in order to take. "Friendly Big Brother" explains our willingness to expose ourselves to surveillance. And "Big Data"—that is what is behind the ethos of Facebook, Google, the NSA, and other technological powers. We are reduced to the data we freely produce: transparent, quantified, a commodity that is bought and sold. It is by questioning, or engaging in "Idiotism," that we can find freedom and truth.

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Week 14: What Now?

Are there any solutions to the problems of information disorder? How can I apply knowledge of information disorder to my life?

The problems and issues wrapped up in information disorder are complex and resist easy solutions. Information disorder is a name for the confluence of all of the trends we have examined in this class and the technologies that create, support, and propagate them. The sociology of information disorder asks us to look at the social forces and the structural dimensions of how information is produced, consumed, and disseminated in our present-day society and its overarching constructs of capitalism and democracy.

Wardle and Derakhshan discussed potential solutions and pitfalls based on technological, social, media, educational, and regulatory approaches.[81] They were skeptical of the ability of technology companies to solve the problems that proliferate on their platforms and tools. The regulation of content and the authority to decide what is good or bad information is deeply fraught (e.g., consider the issues raised by Caplan, Hanson, and Donovan in week 1).[82] Figuring out how to rebuild trust in reputable sources of information rests not just on strengthening institutions like the media or government (through the ability to regulate), but on the ability of citizens to competently evaluate credibility and engage in critical thinking.

My hope is that this syllabus serves to spark engagement and discussion that begins to bring light to the difficult and sticky problems inherent to information disorder. As an individual citizen, you can be aware of the forces that seek to manipulate and persuade and proceed with eyes open in the pursuit of informed decision-making. You can choose to participate in online systems with a better idea of what is happening inside the technological black box or choose to find and follow alternatives to the status quo. As a librarian, as an educator, you can bring a critical approach to teaching that acknowledges the social contexts within which information-seeking takes place.[83] Now that you know about the sociology of information disorder, what is next for you?

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