

Course Syllabus

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 Edit

Syllabus, with linked materials, starting from the point at which Paul E. took over the course. The previous syllabus is still [available here](http://www-personal.umich.edu/~csandvig/710F16/) (<http://www-personal.umich.edu/~csandvig/710F16/>). Guest instructors marked with an asterisk have confirmed.

Course requirements have not changed, except for the following:

- Serve as a lead discussant twice during the term (25 percent of grade; 12.5 percent for each session). Working in pairs, discussion leaders prepare a discussion plan and a handout for the class (a 1-2 page summary of major points from the readings, bullet points only). Maximum time for any presentation is 20 minutes, but other elements (discussion, exercises, small-group work, games) may be added. Discussion leaders will meet with the instructor prior to the class session to go over the students' draft plan. Discussion leaders are also responsible for finding copies of that week's readings and forwarding them to Paul by Wednesday of the week prior to the session. **When you are serving in this role, you don't need to write a weekly response.** [Sign up here](http://www.SignUpGenius.com/go/10C0B4FAEAC2FA13-discussion%20) (<http://www.SignUpGenius.com/go/10C0B4FAEAC2FA13-discussion%20>) for two weeks (you can swap slots with other students later if need be).
- Grading of term paper proposals and term papers: I'll enlist your advisors and perhaps some others to help with this. I'll discuss this with each of you individually to work out a mutually agreeable plan.
- Due date for paper proposals is now Nov. 14, so that I can be there for the proposal workshop day.

3 Oct (Mon): How should we conceptualize "culture" itself?

- Please post your [weekly question](#) one hour before class begins.
- Williams, Raymond. 1976/1983. [Culture](#). In: Keywords (Oxford University Press), pp. 87-93. NOTE: I've given you the entire book, which was a major intervention in its time. The following reading, from Striphas, is in Ben Peters' collection that deliberately echoes the revered Williams volume. You only need to read the entry on Culture.
- Striphas, Ted. 2014. [Culture. In: Digital Keywords](#). Ben Peters (ed.)
- Castells, Manuel. 2000. [Materials for an exploratory theory of the network society](#). British Journal of Sociology 51(1): 5-24.
- Young, Justin. [review of Terranova 2004, Network Culture](#)
- Heather's [Prelim Notes on Terranova 2004](https://heathersprelimnotes.wordpress.com/2014/11/19/terranova-network-culture-politics-for-the-information-age/) (<https://heathersprelimnotes.wordpress.com/2014/11/19/terranova-network-culture-politics-for-the-information-age/>) (this and the previous item will substitute for the excerpts from Terranova's book)
- Wilf, Eitan. 2013. ["Toward an Anthropology of Computer-Mediated, Algorithmic Forms of Sociality"](#). Current Anthropology 54(6): 716-739.
- Striphas, Ted. 2014. ["Culture now has two audiences: People and Machines"](#)

10 Oct (Mon): What new methods are being developed to investigate algorithmic systems? What is algorithm auditing?















- Please post your [weekly question](#) one hour before class begins.
- Bogost, I. (2012). Alien Phenomenology: or, What It's Like to Be a Thing. Minneapolis: University of Minnesota Press. ([Ch. 4: Carpentry](#) (<http://site.ebrary.com.proxy.lib.umich.edu/lib/umich/detail.action?docID=10762725>) -- N.B.: "OOO" stands for Object-Oriented Ontology .)
- [Ch. 5: "Search as Research: Source Distance and Cross-Spherical Analysis"](#). In: Rogers, R. (2013). Digital Methods. Cambridge, MA: MIT Press.
- Sandvig, Christian, Kevin Hamilton, Karrie Karahalios, and Cedric Langbort. forthcoming. ["Auditing Algorithms: Research Methods for Detecting Discrimination on Internet Platforms"](#). Computational Culture.
- Sweeney, L. (2013). [Discrimination in Online Ad Delivery](#). ACM Queue 11(3): 1-19.
- Edelman, B. (2011). [Bias in Search Results? Diagnosis and Response](#). Indian Journal of Law and Technology 7: 16-32.
- Hannak, A., Soeller, G., Lazer, D., Mislove, A., Wilson, C. (2014). [Measuring Price Discrimination and Steering on E-commerce Web Sites](#). ACM SIGCOMM/SIGMETRICS Internet Measurement Conference (IMC '14).
- Mathias Lecuyer, Guillaume Ducoffe, Francis Lan, Andrei Papancea, Theofilos Petsios, Riley Spahn, Augustin Chaintreau, and Roxana Geambasu. (2014). ["XRay: Increasing the Web's Transparency with Differential Correlation"](#). Technical report. Columbia University.
- OPTIONAL: Ratto, Matt. 2011. ["Critical Making: Conceptual and Material Studies in Technology and Social Life"](#). The Information Society 27 (4): 252-60.

17 Oct (Mon): NO CLASS (Fall Study Break)













24 Oct (Mon): How do "users" (or "algorithmic subjects") experience and think about algorithms and culture?

- Please post your [weekly question](#) one hour before class begins.
- Sandvig, Christian. 2015. ["Seeing the Sort: The Aesthetic and Industrial Defense of 'The Algorithm'"](#) (<http://median.newmediacaucus.org/art-infrastructures-information/seeing-the-sort-the-aesthetic-and-industrial-defense-of-the-algorithm/>) (<http://%20http://median.newmediacaucus.org/art-infrastructures-information/seeing-the-sort-the-aesthetic-and-industrial-defense-of-the-algorithm/>). Media-N
- Ned Rossiter and Soenke Zehle. 2015. [The Aesthetics of Algorithmic Experience](#) (<http://nedrossiter.org/?p=436>). In: Randy Martin (ed.), The Routledge Companion to Art and Politics, New York: Routledge.
- Lustig, Caitlin, and Nardi, Bonnie. 2015. ["Algorithmic Authority: The Case of Bitcoin"](#). 48th Hawaii International Conference on System Sciences (HICSS), 743-752.
- Emilee Rader and Rebecca Gray. 2015. [Understanding User Beliefs About Algorithmic Curation in the Facebook News Feed](#). In Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15). 173-182.
- Eslami, Motahare, Vaccaro, Kristen, Rickman, Aimee, Hamilton, Kevin, Sandvig, Christian, and Karahalios, Karrie. 2015. [First I "like" it, then I hide it: Folk Theories of Social Feeds](#). CHI 2016.
- Cosley, D., Lam, S.K., Albert, I., Konstan, J.A. and Riedl, J. 2003. [Is seeing believing? How recommender system interfaces affect users' opinions.](#) In: Proceedings of the conference on Human Factors in Computing Systems, pp. 585-592
- OPTIONAL: Dietvorst, Berkeley, Simmons, Joseph, and Massey, Cade. 2014. ["Algorithm Aversion: People Erroneously Avoid Algorithms after Seeing Them Err"](#) (July 6.). Forthcoming in Journal of Experimental Psychology

31 Oct (Mon): How do "technologists" or "developers" experience and think about algorithms and culture?

- Please post your [weekly question](#) one hour before class begins.
- [Ch. 2: The Black Art of Programming](#)   (and additional excerpt.) From: Ensmenger, N. 2012. *The Computer Boys Take Over*. Cambridge: MIT Press.
- [Ch. 3: Configuring the User](#)   From: Grint, K. & Woolgar, S. 1997. *The Machine at Work*. London: Polity.
- Ensmenger, Nathan. 2012. "[Is Chess the Drosophila of Artificial Intelligence? A Social History of an Algorithm](#)  .
- Sterne, Jonathan. 2006. "[The mp3 as cultural artifact](#)  .
- Schüll, Natasha Dow. 2014. [Addiction by Design: Machine Gambling in Las Vegas](#)   ([http://reader.eblib.com.proxy.lib.umich.edu/\(S\(ujrafw1unkdye0kaasziplib\)\)/Reader.aspx?ip=1023692&o=1864&u=sA9SExwnDXA%3d&t=1477332887&h=7E0D65F80A02B6BB816B11D397608EF6084FDE12&s=49239315&ut=6209&pg=1&r=img&c=-1&pat=n&cms=-1&sd=2](http://reader.eblib.com.proxy.lib.umich.edu/(S(ujrafw1unkdye0kaasziplib))/Reader.aspx?ip=1023692&o=1864&u=sA9SExwnDXA%3d&t=1477332887&h=7E0D65F80A02B6BB816B11D397608EF6084FDE12&s=49239315&ut=6209&pg=1&r=img&c=-1&pat=n&cms=-1&sd=2)). Ebook edition. Princeton, NJ: Princeton University Press. Read the vignette that opens Part Two (about 3 pp) and Chapter 5. The Introduction provides some useful background, but isn't required.
- Seaver, Nick. 2013. "[Knowing Algorithms](#)  .
- Seaver, Nick. 2014. [On Reverse Engineering](#)  . Medium.com.






7 Nov (Mon): What challenges and opportunities does machine learning pose in a cultural context? **Guest instructor: Prof. Sheila Murphy** (<https://lsa.umich.edu/digitalstudies/people/faculty/scmurphy.html>)

- Please post your [weekly question](#) one hour before class begins.
- Domingos, P. (2012). [A few useful things to know about machine learning](#)  . *Communications of the ACM*, 55(10), 78.
- Wallach, Hannah. 2014. [Big Data, Machine Learning, and the Social Sciences](#)  . NIPS 2014 workshop keynote.
- Burrell, Jenna. 2015. "[How the Machine 'Thinks': Understanding Opacity in Machine Learning Algorithms](#).  
- Hallinan, Blake, and Ted Striphas. 2014. "[Recommended for You: The Netflix Prize and the Production of Algorithmic Culture](#).  ." *New Media & Society*. <http://nms.sagepub.com/content/early/2015/02/02/1461444814538646>
- Mackenzie, Adrian. 2015. "[The Production of Prediction: What Does Machine Learning Want?](#)  ." *European Journal of Cultural Studies* 18(4/5): 429–45.
- [Tidings of Comfort and Joy: The Seven Wise Men and the Science of Economics](#)   (book chapter) Ch. 5 of "The Golem at Large" (1998), by Harry Collins and Trevor Pinch. Cambridge University Press.
- OPTIONAL: Mackenzie, Adrian. *Machine Learning and Genomic Dimensionality: From Features to Landscapes*. In: *Postgenomics: perspectives on biology after the genome*. ed. / Sarah Richardson; Hallam Stevens. Durham, N.C. : Duke University Press, 2015. p. 73–102.

14 Nov (Mon): Seminar Paper Proposal Workshop Day

- Seminar **paper proposal** due.





14 Nov (Mon): Is algorithmic judgement inhuman? What would that mean?









- Please post your [weekly question](#) one hour before class begins.
- Napoli, Philip M. 2014. "[On Automation in Media Industries: Integrating Algorithmic Media Production into Media Industries Scholarship](#)  .
- Sharkey, N., Suchman, L. 2013. "Wishful mnemonics and autonomous killing machines." [Sharkey & Suchman 2013 Wishful Mnemonics and Autonomous Killing Machines.pdf](#)   In: *Proceedings of the AISB*. 136, p. 14-22.
- Neyland, Daniel. 2015. "[On Organizing Algorithms](#)  .
- Pasquale, Frank. 2015. "[The Algorithmic Self](#)  .
- Thrift, Nigel, and Shaun French. 2002. "[The Automatic Production of Space](#)  .
- OPTIONAL: McQuillan, Daniel. 2015. "[Algorithmic States of Exception](#)  .

21 Nov (Mon): What data and/or metrics do cultural algorithms require? Are there new kinds of quantification because of cultural algorithms? (*) **Guest instructor: Prof. Sophia Brueckner** (<http://www.sophiabruckner.com/>).


- Please post your [weekly question](#) one hour before class begins.
- Grosser, Ben. (2012). [Facebook Demetricator](#) (<https://vimeo.com/51487572>) (video; 2:51)
- Grosser, Ben (2014) "[What do Metrics Want? How Quantification Prescribes Social Interaction on Facebook](#) (<http://computationalculture.net/article/what-do-metrics-want/>)," *Computational Culture*
- Bucher, Taina (2012) "[Want to be on the top? Algorithmic power and the threat of invisibility on Facebook](#) (<http://nms.sagepub.com/content/14/7/1164>)," *New Media & Society*
- Gerlitz, Carolin and Anne Helmond (2013) "[The like economy: Social buttons and the data-intensive web](#) (<http://sites.uci.edu/mariaselenebose/files/2016/01/New-Media-Society-2013-Gerlitz-1348-65.pdf>)," *New Media & Society*
- Gerlitz, Carolin and Celia Lury (2014) "[Social media and self-evaluating assemblages: on numbers, orderings and values](#) (<http://www.tandfonline.com/doi/abs/10.1080/1600910X.2014.920267>)," *Distinktion: Journal of Social Theory*

28 Nov (Mon): How can algorithmic processes provide accountability? How are algorithms governed? **Guest instructor: Prof. Nicole Ellison** (<http://www-personal.umich.edu/~enicole/>).













- Please post your [weekly question](#) one hour before class begins.
- Data & Society Research Institute. 2014. "[Workshop Primer: Algorithmic Accountability](#) (<http://www.datasociety.net/pubs/2014-0317/AlgorithmicAccountabilityPrimer.pdf>)."  
- boyd, danah, Karen Levy, and Alice Marwick. 2014. "[The Networked Nature of Algorithmic Discrimination](#)  .
- Diakopoulos, Nicholas. 2015. "[Algorithmic Accountability](#) (http://www.nickdiakopoulos.com/wp-content/uploads/2011/07/algorithmic_accountability_final.pdf)." *Digital Journalism* 3 (3): 398-415

- Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). [Online dating: A critical analysis from the perspective of psychological science](#)  . *Psychological Science in the Public Interest*, 13(1), 3-66
- Heino, R. D., Ellison, N. B., & Gibbs, J. L. (2010). [Relationshopping: Investigating the market metaphor in online dating.](#)   *Journal of Social and Personal Relationships*, 27(4), 427-447
- Pizzato, L., Rej, T., Akehurst, J., Koprinska, I., Yacef, K., & Kay, J. (2013). [Recommending people to people: the nature of reciprocal recommenders with a case study in online dating](#)  . *User Modeling and User-Adapted Interaction*, 23(5), 447-488. [Skim the more technical description of the algo.]
- OPTIONAL: Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2016). [Dating in a Digital World](#)  . *Scientific American*, 25, 104-111.

5 Dec (Mon): What industrial complexes are part of emergent algorithm-driven industries (aka 'big data industries')? The case of biometrics **Guest instructor: Prof. Muzzamil Hussain** (<https://mmhussain.net>)*

- Please post your [weekly question](#) one hour before class begins.
- Gates, Kelly. 2011. [Our Biometric Future](#)  , Chapter 1
- Magnet, Shoshana Amielle. 2014. [When Biometrics Fail: Gender, Race, and the Technology of Identity](#)  , Chapters 3 and 4.

12 Dec (Mon): Summing up: What is the role of algorithms in cultural theory?



- Please post your [weekly question](#) one hour before class begins.
- Soderman, Braxton. 2007. "[The Index and the Algorithm](#)  . *differences* 18(1): 153-86.
- Beer, David. 2013. "[Algorithms: Shaping Tastes and Manipulating the Circulations of Popular Culture](#)  . Chapter 4 of *Popular Culture and New Media: The Politics of Circulation*. Palgrave MacMillan.
- Totaro, Paolo, and Ninno, Domenico. 2014. "[The Concept of Algorithm as an Interpretative Key of Modern Rationality.](#)  . *Theory, Culture & Society* 31 (4): 29-49.
- Galloway, Alex R. 2014. "[The Cybernetic Hypothesis](#)  . *differences* 25(1): 107-131.
- OPTIONAL: Mager, Astrid. 2012. "[Algorithmic Ideology: How Capitalist Society Shapes Search Engines](#)  . *Information, Communication & Society* 15(5): 769-787.
- OPTIONAL: Uricchio, William. 2015. "[Recommended for You: Prediction, Creation and the Cultural Work of Algorithms](#)  . *The Berlin Journal* 28: 6-9. (NB, the PDF contains the entire issue of this journal, but the recommended reading is only the 4 pages indicated.)

21 Dec (Wed): Final paper due

Final paper due at 10:00 a.m.

This is the end of the scheduled final exam period for this course according to the registrar's office. Submitting the paper will count as the final examination for this seminar; there is no other final examination. Submit your paper via e-mail to the instructor.

Course Summary:

Date	Details
Mon Nov 14, 2016	 Final project proposal (https://umich.instructure.com/courses/87074/assignments/196543) due by 12pm
Mon Dec 19, 2016	 Final project - final version (https://umich.instructure.com/courses/87074/assignments/196544) due by 11:59pm