

Weekly Topics and Reading List:

Recommended Readings:

Guzman, A. L. (2018). *Human-machine communication: Rethinking communication, technology, and ourselves*. New York, NY: Peter Lang.

Rogers, Y. (2012). *HCI theory: Classical, modern, and contemporary*. Morgan & Claypool.

Required Readings:

(*: Optional.)

Week 2: Conceptualizing Emerging Technologies

1. Lievrouw, L. A., & Livingstone, S. (2006). *Handbook of new media: Social shaping and consequences of ICTs*. London: Sage. pp. 1-32.
2. Manovich, L. (2001). *The language of new media*. MIT press. **Chapter 1**.
3. Marvin, C. (1997). *When old technologies were new*. Oxford University Press. **Introduction**.
4. Marvin, C. (1997). *When old technologies were new*. Oxford University Press. **Chapter 2**

Week 3: Conceptualizing Human-Machine Communication

1. Guzman, A. L. (2018). What is human-machine communication, anyway? In A. L. Guzman (Ed.). *Human-machine communication: Rethinking communication, technology, and ourselves*. New York, NY: Peter Lang.
2. Gunkel, D. J. (2012). Communication and artificial intelligence: Opportunities and challenges for the 21st century. *Communication+ 1*, 1(1), 1-25.
3. Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. New York: Basic Books. **Chapter 2**.

Week 4: Computers are Social Actors

1. Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of Social Issues*, 56(1), 81-103.
2. Lombard, M., & Xu, K. (2021). Social responses to media technologies: The Media are Social Actors paradigm. *Human-Machine Communication*, 2, 29-55.

3. Gambino, A., Fox, J., & Ratan, R. A. (2020). Building a Stronger CASA: Extending the Computers Are Social Actors Paradigm. *Human-Machine Communication, 1*, 71-85.
4. *Xu, K. & Liao, T. (2020). Explicating cues: A typology for understanding emerging media technologies. *Journal of Computer-Mediated Communication, 25*(1), 32-43.

Week 5: Conceptualizing Affordances

1. Norman, D. A. (1988). *The psychology of everyday things*. Basic Books. Chapter 2.
2. Norman, D. A. (1988). *The psychology of everyday things*. Basic Books. Chapter 5.
3. Gaver, W. W. (1991). Technology affordances. In *Proceedings of the SIGCHI conference on Human factors in computing systems* (pp. 79-84). ACM.
4. Evans, S. K., Pearce, K. E., Vitak, J., & Treem, J. W. (2017). Explicating affordances: A conceptual framework for understanding affordances in communication research. *Journal of Computer-Mediated Communication, 22*(1), 35-52.

Week 7: User Interface & Machine Heuristic

1. Sundar, S. S., Jia, H., Waddell, T. F., & Huang, Y. (2015). Toward a theory of interactive media effects (TIME): Four models for explaining how interface features affect user psychology. In S. S. Sundar (Ed.), *Handbooks in communication and media. The handbook of the psychology of communication technology* (pp. 47–86). Wiley-Blackwell.
2. Yang, H., & Sundar, S. (2020). Machine heuristic: A concept explication and development of a scale. Paper presented at the annual conference of the International Communication Association, Gold Coast, Australia.
3. Sundar, S. S. (2020). Rise of Machine Agency: A Framework for Studying the Psychology of Human–AI Interaction (HAI). *Journal of Computer-Mediated Communication, 25*(1), 74-88.
4. *Spiliotopoulos, K., Rigou, M., & Sirmakessis, S. (2018). A comparative study of skeuomorphic and flat design from a UX perspective. *Multimodal Technologies and Interaction, 2*, 1-21.
5. *Google Material design: <https://material.io/design>
6. *Human Interface Guidelines: <https://developer.apple.com/design/human-interface-guidelines/ios/overview/themes/>

Week 8: Human-Computer Interaction

1. Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions*. Cambridge University Press. Chapter 5.
2. Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions*. Cambridge University Press. Chapter 6.
3. Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions*. Cambridge University Press. Chapter 7.
4. Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions*. Cambridge University Press. Chapter 9.

Week 9: Artifacts, Politics, and Actor-Networks

1. Winner, L. (1980). Do artifacts have politics? *Daedalus*, 121-136.
2. Latour, B. (1992). Where are the missing masses? The sociology of a few mundane artifacts. In W. E. Bijker, & J. Law (Eds.), *Shaping technology/building society: Studies in sociotechnical change*, pp. 225-258. Cambridge, MA: MIT Press.
3. Akrich, M. (1992). The de-description of technical objects. In W. E. Bijker, & J. Law (Eds.), *Shaping technology/building society: Studies in sociotechnical change*, pp. 205-224. Cambridge, MA: MIT Press.

Week 10: Science and Technology Studies

1. Pinch, T. J., & Bijker, W. E. (1987). The social construction of facts and artifacts: Or how the sociology of science and the sociology of technology might benefit each other. In W. E. Bijker, T. P. Hughes, & T. J. Pinch (Eds.), *The social construction of technological systems: New directions in the sociology and history of technology*, pp. 17-50. MIT Press.
2. Bijker, W.E. (1989). The Social Construction of Bakelite: Toward a Theory of Invention. In Bijker, W.E., Hughes, T.P. E Pinch, T.J., *The social construction of technological systems: New directions in the sociology and history of technology* (pp. 159-187). Massachusetts: MIT Press.
3. Winner, L. (1993). Upon opening the black box and finding it empty: Social constructivism and the philosophy of technology. *Science, Technology, and Human Values*, 18, 362-378.

Week 11: Science and Technology Studies 2

- 1] Kling, R. (1992). Audiences, narratives, and human values in social studies of technology. *Science, Technology, & Human Values*, 17(3), 349-365.
- 2] Grint, K., & Woolgar, S. (1992). Computers, guns, and roses: what's social about being shot? *Science, Technology, & Human Values*, 17(3), 366-380.
- 3] Kling, R. (1992). When gunfire shatters bone: Reducing sociotechnical systems to social relationships. *Science, Technology, & Human Values*, 17(3), 381-385.

Week 12: Ubiquitous computing and persuasive computing

1. Weiser, M. (1991). The computer for the 21st Century. *Scientific American*, 265, 94-110.
2. Tsujita, H., & Rekimoto, J. (2011, September). Smiling makes us happier: enhancing positive mood and communication with smile-encouraging digital appliances. In *Proceedings of the 13th international conference on Ubiquitous computing* (pp. 1-10).
3. Picard, R. W. (2003). Affective computing: challenges. *International Journal of Human-Computer Studies*, 59(1-2), 55-64.

Week 13: Introduction to machine learning

1. Grimmer, J., & Stewart, B. M. (2013). Text as data: The promise and pitfalls of automatic content analysis methods for political texts. *Political Analysis*, 21, 267-297.
2. *Denny, M., & Spirling, A. (2017). Text preprocessing for unsupervised learning: Why it matters, when it misleads, and what to do about it. *Political Analysis*, 26, 168-189.
3. *Peng, Y. (2018). Same candidates, different faces: Uncovering media bias in visual portrayals of presidential candidates with computer vision. *Journal of Communication*, 68, 920-941.
4. McAfee, A., & Brynjolfsson, E. (2017). The Business of Artificial Intelligence. *Harvard Business Review*, 1-20.