Weekly Topics and Reading List:

Recommended Readings/Textbooks:

Guzman, A., McEwen, R., & Jones, S. (2023). *The Sage handbook of human-machine communication*. Thousand Oaks, CA: Sage.

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

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

Required Readings:
(*: Optional.)

Week 2: 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). Alive enough. In *Alone together: Why we expect more from technology and less from each other.* Basic Books.

Week 3: Defining AI by Understanding Emerging Technology

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 4: Computers are Social Actors I

1. Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of Social Issues*, *56*(1), 81-103.

2. Fogg, B. J. (2002). *Computers as persuasive social actors.* In Persuasive technology: Using computers to change what we think and do. Morgan Kaufmann Publishers.

3. Nass, C. I., Lombard, M., Henriksen, L., & Steuer, J. (1995). Anthropocentrism and computers. *Behavior & Information Technology*, *14*(4), 229-238

4. *Nass, C., Steuer, J., & Tauber, E. R. (1994, April). Computers are social actors. *Proceedings of the SIGCHI Conference on Human factors in Computing Systems*, 72-78.

Week 5: Computers are Social Actors II

1. Lombard, M., & Xu, K. (2021). Social responses to media technologies: The Media are Social Actors paradigm. *Human-Machine Communication, 2,* 29-55.

2. 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.

3. Xu, K. & Liao, T. (2020). Explicating cues: A typology for understanding emerging media technologies. *Journal of Computer-Mediated Communication, 25*(1), 32-43.

4. *Xu, K. (2019). First encounter with robot Alpha: How individual differences interact with vocal and kinetic cues in users' social responses. *New Media & Society*, *21*(11-12), 2522-2547.

Week 6: 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: Machine Agency & Algorithms

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. Sundar, S. S. (2020). Rise of machine agency: A framework for studying the psychology of human–AI interaction (HAII). *Journal of Computer-Mediated Communication*, *25*(1), 74-88.

3. Hancock, J. T., Naaman, M., & Levy, K. (2020). AI-mediated communication: Definition, research agenda, and ethical considerations. *Journal of Computer-Mediated Communication*, *25*(1), 89-100.

4. *Gillespie, T. (2014). The relevance of algorithms. In T. Gillespie, P. Boczkowski, & K. Foot (Eds.), *Media technologies: Essays on communication, materiality, and society*, *pp. 167-193.* Cambridge, MA: MIT Press.

5. *Lee, E. J. (2024). Minding the source: toward an integrative theory of human–machine communication. *Human Communication Research*, *50*(2), 184-193.

6. *Dehnert, M., & Mongeau, P. A. (2022). Persuasion in the Age of Artificial Intelligence (AI): Theories and Complications of AI-Based Persuasion. *Human Communication Research*, 48, 386-403.

Week 9: 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 10: 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-scription 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 11: 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 12: Ubiquitous computing and affective 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: Explainable & Transparent AI

1. Liu, B. (2021). In AI we trust? Effects of agency locus and transparency on uncertainty reduction in human–AI interaction. *Journal of Computer-Mediated Communication*, *26*(6), 384-402.

2. Xu, K., & Shi, J. (2024). Visioning a two-level human–machine communication framework: initiating conversations between explainable AI and communication. *Communication Theory*, qtae016.

3. Molina, M. D., & Sundar, S. S. (2022). When AI moderates online content: effects of human collaboration and interactive transparency on user trust. *Journal of Computer-Mediated Communication*, *27*(4), zmac010.

Additional readings:

*Week: 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: 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. *Havard Business Review*, 1-20.

*Readings that you can use for your presentation

Lee, K. M., Park, N., & Song, H. (2005). Can a robot be perceived as a developing creature? Effects of a robot's long-term cognitive developments on its social presence and people's social responses toward it. *Human Communication Research*, *31*(4), 538-563.

Ho, A., Hancock, J., & Miner, A. S. (2018). Psychological, relational, and emotional effects of self-disclosure after conversations with a chatbot. *Journal of Communication*, *68*(4), 712-733.

Lew, Z., & Walther, J. B. (2022). Social Scripts and Expectancy Violations: Evaluating Communication with Human or AI Chatbot Interactants. *Media Psychology*, 1-16.

Awad, E., Dsouza, S., Kim, R., Schulz, J., Henrich, J., Shariff, A., ... & Rahwan, I. (2018). The moral machine experiment. *Nature*, *563*(7729), 59-64.

Liao, T., & Tyson, O. (2021). "Crystal Is Creepy, but Cool": Mapping Folk Theories and Responses to Automated Personality Recognition Algorithms. *Social Media+ Society*, *7*(2), 20563051211010170.

Liu, B., Wei, L., Wu, M., & Luo, T. (2023). Speech production under uncertainty: how do job applicants experience and communicate with an AI interviewer?. *Journal of Computer-Mediated Communication*, *28*(4), zmad028.

Sundar, S. S., & Nass, C. (2000). Source orientation in human-computer interaction: Programmer, networker, or independent social actor. *Communication Research*, *27*(6), 683-703.

Darling-Wolf, F. (2021). In the city, they go "pit pit pit": Digital media's affordances and imagined (dis) connections in a rural Japanese community. *New Media & Society*, *23*(7), 1863-1881.

Nyhan, B., Settle, J., Thorson, E., Wojcieszak, M., Barberá, P., Chen, A. Y., ... & Tucker, J. A. (2023). Like-minded sources on Facebook are prevalent but not polarizing. *Nature*, 1-8.

Humphreys, L. (2010). Mobile social networks and urban public space. *New Media & Society*, *12*(5), 763-778.

Leo-Liu, J., & Wu-Ouyang, B. (2022). A "soul" emerges when AI, AR, and Anime converge: A case study on users of the new anime-stylized hologram social robot "Hupo". *New Media & Society*, 14614448221106030.

Liao, T. (2018). Mobile versus headworn augmented reality: How visions of the future shape, contest, and stabilize an emerging technology. *New Media & Society*, *20*(2), 796-814.

Lu, W. (2024). Streets as experienced through the body, mind, and screen: The smartphone and the pedestrian's engagement with an urban public space. *Mobile Media & Communication*, *12*(1), 71-94.

Xu, K., Chen, X., Liu, F., & Huang, L. (2024). What did you hear and what did you see? Understanding the transparency of facial recognition and speech recognition systems during human–robot interaction. *New Media & Society*, 14614448241256899.