"My AI must have been broken": How AI Stands to Reshape Human Communication

Mor Naaman
mor.naaman@cornell.edu
Cornell Tech
New York, NY, USA

ABSTRACT

From autocomplete and smart replies to video filters and deepfakes, we increasingly live in a world where communication between humans is augmented by artificial intelligence. AI often operates on behalf of a human communicator by recommending, suggesting, modifying, or generating messages to accomplish communication goals. We call this phenomenon AI-Mediated Communication (or AI-MC) [1, 4]. While AI-MC has the potential of making human communication more efficient, it impacts other aspects of our communication in ways that are not yet well understood. Over the last three years, my collaborators and I have been documenting the impact of AI-MC on communication outcomes, language use, interpersonal trust, and more. The talk will outline early experimental findings from this work, mostly led by Cornell and Stanford graduate students Maurice Jakesch, Hannah Mieczkowski, and Jess Hohenstein. For example, the research shows that AI-MC involvement can result in language shifting towards positivity [2, 7]; impact the evaluation of others [2, 4]; change the extent to which we take ownership over our messages [6]; and shift assignment of blame for communication outcomes [3]. Given the impact of AI-MC on interpersonal evaluations, the talk will also cover our recent research examining the (mostly false) heuristics humans use when evaluating whether text was written by AI [5]. Overall, AI-MC raises significant practical and ethical concerns as it stands to reshape human communication, calling for new approaches to the development and regulation of these technologies.

ACM Reference Format:
Mor Naaman. 2022. "My AI must have been broken": How AI Stands to Reshape Human Communication. In *Sixteenth ACM Conference on Recommender Systems (RecSys '22), September 18–23, 2022, Seattle, WA, USA*. ACM, New York, NY, USA, 1 page. https://doi.org/10.1145/3523227.3555724

BIOGRAPHY

Mor Naaman is a professor of Information Science at Cornell Tech where he also serves as the associate dean for technical programs. Mor leads a research group focused on the intersection of technology, media and democracy. The group applies multidisciplinary techniques — from machine learning to qualitative social science — to study our information ecosystem and its challenges. Before

Cornell, Mor was on the faculty at the Rutgers School of Communication and Information, led a research team at Yahoo! Research Berkeley, received a Ph.D. in Computer Science from the Stanford University InfoLab, and played professional basketball for Hapoel Tel Aviv. He is also a former startup co-founder, and advises startup companies in social computing and related areas.

REFERENCES

[1] Jeffrey T Hancock, Mor Naaman, and Karen Levy. 2020. AI-mediated communication: Definition, research agenda, and ethical considerations. *Journal of Computer-Mediated Communication* 25, 1 (2020), 89–100.

[2] Jess Hohenstein, Dominic DiFranzo, Rene F. Kizilcec, Zhila Aghajari, Hannah Mieczkowski, Karen Levy, Mor Naaman, Jeff Hancock, and Malte Jung. 2021. Artificial intelligence in communication impacts language and social relationships. https://arxiv.org/abs/2102.05756.

[3] Jess Hohenstein and Malte Jung. 2020. AI as a Moral Crumple Zone: The Effects of AI-Mediated Communication on Attribution and Trust. *Comput. Hum. Behav.* 106, C (may 2020), 13 pages. https://doi.org/10.1016/j.chb.2019.106190

[4] Maurice Jakesch, Megan French, Xiao Ma, Jeffrey T. Hancock, and Mor Naaman. 2019. AI-Mediated Communication: How the Perception That Profile Text Was Written by AI Affects Trustworthiness. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (Glasgow, Scotland Uk) *(CHI '19)*. Association for Computing Machinery, New York, NY, USA, 1–13. https://doi.org/10.1145/3290605.3300469

[5] Maurice Jakesch, Jeffrey Hancock, and Mor Naaman. 2022. Human Heuristics for AI-Generated Language Are Flawed. https://arxiv.org/abs/2206.07271.

[6] Hannah Mieczkowski and Jeffrey Hancock. 2022. Examining Agency, Expertise, and Roles of AI Systems in AI-Mediated Communication. https://osf.io/asnv4.

[7] Hannah Mieczkowski, Jeffrey T Hancock, Mor Naaman, Malte Jung, and Jess Hohenstein. 2021. AI-Mediated Communication: Language Use and Interpersonal Effects in a Referential Communication Task. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW1 (2021), 1–14.