Faculty Spotlight: Mohammad Hosseini, Assistant Professor

We are thrilled to share that upon completing a postdoctoral appointment at Galter Library, Mohammad Hosseini has accepted a position as an Assistant Professor in the Department of Preventive Medicine. Born in Tehran, Hosseini received his MA in Applied Ethics from Utrecht University (2016, The Netherlands) and completed his PhD in Research Ethics and Integrity at Dublin City University (2021, Ireland), where he also served as a guest lecturer in ethics.

Since joining Northwestern, Hosseini has focused on exploring research ethics and attributions, uncovering biases in scholarly research and analyzing ethical issues in translational sciences. With the launch of Open AI's ChatGPT and the increasing use of artificial intelligence (AI) applications in research, Hosseini has actively collaborated with the Institute of Artificial Intelligence in Medicine (I.AIM). He has been investigating the potential impact of employing AI on existing norms and relationships in research and identifying the associated opportunities and challenges.

About his new role as an Assistant Professor, Hosseini says "I'm excited about new opportunities for local and international collaborations and contributing to the debate about the ethics of using AI in research. Integrating ethical considerations in technological advancements and fostering a research culture that is cognizant of integrity and societal impacts are my ultimate objectives in this new role."

Over the past year, Hosseini has become an active voice in the AI debate, advocating for responsible use and communicating the ethical implications of AI through research articles, newspapers, podcasts, and workshops. He recognizes the fast pace of AI developments and international collaborations among critical elements of this topic, noting that "all these developments indicate a global awareness of the profound impact AI will have on different aspects of our lives."

The interdisciplinary and timely nature of Hosseini's work intersects with several ongoing projects and initiatives related to the impact of ethics and research integrity. In a recent joint effort between Northwestern University's Amaral Lab, Galter Library, and the History of Genomics Program at the National Human Genome Research Institute (NHGRI), he collaborated in the exploration and computational analysis of the decision-making processes behind the Human Genome Project (HGP). This project used the HGP archives within the NIH (with an estimated two million internal documents related to the HGP) to probe the inner workings of this massive international public-private effort. Hosseini and Kristi Holmes were invited to explore the ethical considerations of accessing and studying this rich archive with AI tools. The observations from this study offer valuable insights into navigating the ethical complexities of employing AI and large language models in archival processing and exploration for researchers and members of the GLAM (Galleries, Libraries, Archives, and Museums) community. Learn more about the history and impact of this work in a recent publication in the Journal of eScience Librarianship's special issue on artificial intelligence titled Ethical considerations in utilizing artificial intelligence for analyzing the NHGRI's History of Genomics and Human Genome Project archives.

Hosseini's commitment to cultivating inclusive and ethical research cultures in academia is apparent in his work and across his many collaborations including the Global Young Academy, National Academy of Sciences, NUCATS, I.AIM, the

National Evaluation Center, and here at Galter. We're excited about the opportunities that this appointment opens for him to further his research in ethics, cultivate fairness, and advocate for responsible AI practices.

Recent Collaborations and Research

- View Mohammad's Professional Profile
- Co-author of Authors Without Borders, 2023.
- An exploratory survey about using ChatGPT in education, healthcare, and research, PLOS One, 2023.
- The Impact of AUTOGEN and Similar Fine-Tuned Large Language Models on the Integrity of Scholarly Writing. The American Journal of Bioethics. 2023.
- Global Young Academy: An interdisciplinary database of ethics dumping cases (2023/24)

Written by Emma Wilson