

## Call for Papers

### Artificial Intelligence and New Media in Challenges: Algorithmic Bias and Ethical Issues

Artificial Intelligence (AI) technologies and applications have rapidly penetrated into all aspects of social, political, civic, and cultural life. Despite the exponential growth in and development of AI, algorithmic bias toward gender, age, sexuality, race/ethnicity, and ideology prevails across digital media platforms, ranging from search engines through news sites to social media. This omnipresence of algorithmic bias results in social issues, such as systematic and repeated unfairness, discrimination, and inequality, privileging certain groups over others, violating privacy, and reinforcing social and cultural biases.

However, scholarship still remains unexplored in light of the causes, components, and consequences of algorithmic bias and ethical issues. Recent successes in AI are based on "black-box" machine learning models trained with a tremendous amount of data, which makes it extremely difficult to understand or interpret their underlying mechanisms despite their remarkable predictive power. Therefore, this special section calls for papers which can address these structured, longstanding issues toward individuals, groups, communities, and countries across the socio-economic and ideological spectrums. The special section is particularly interested in studies empirically demonstrating the aforementioned issues and providing solutions for a better design, development, application, and implication of AI and digital media. Thus, the following research questions are central to this special section. What are the causes of algorithmic bias and how do these relate to ethical, policy, and legal issues like privacy? What are the components of biased algorithms? To what extent does algorithmic bias produce and reproduce social and cultural biases and vice versa? How can we understand, predict, and trust the behaviors of AI systems? What are the intended or unintended consequences of a biased and discriminatory algorithm? What are the best practices in data collection and model development of AI applications? How do we detect, understand, and mitigate algorithmic bias and the connected ethical, policy, and legal issues so that scholars and developers, alike, use best practices?

In doing so, the special section emphasizes an inextricably interwoven relationship among data and media bias, model bias, and social bias. That is, data and media bias leads to unbalanced training resulting in model bias. Model bias, in turn, reinforces data and media bias and produces discriminatory impacts on humans and society. Human and societal bias then produces skewed representation and participation in data and media bias. This "vicious circle" reinforces bias toward AI system and its development, use, application, and practice. Given algorithmic bias toward individuals, groups, and communities across digital media platforms and ethical issues, this special section examines, but is not limited to, the following issues:

- Algorithmic bias, discrimination, and inequality toward underrepresented groups and communities
- Interaction and amplification of bias between AI and media
- Perceived (un)fairness of algorithm-mediated communication, system, design, and applications
- (Dis)trust in algorithm news curation, recommendation, and algorithmic gatekeeping

- Algorithm bias in news, filter bubbles or echo chambers, opinion polarization, and gaps in knowledge and participation
- (Dis)trust in algorithm development, management, and governance
- (Dis)trust in practical applications of and data-driven decision-making in AI systems
- Impacts of algorithmic bias on cognitive, affectional, attitudinal, perceptual, and behavioral bias in various social, political, civic, and cultural contexts
- Impacts of automated surveillance technologies (e.g. face recognition) on privacy
- Explainable AI for enhancing public trust
- Algorithmic and non-algorithmic solutions to assess and mitigate AI biases and risks

We are open to diverse methodological approaches such as quantitative, qualitative, and computational methods. Interested authors should submit an abstract with 1,000 words maximum, alongside a title page containing a brief author bio and contact information. Below presents a detailed timeline.

#### **Proposed Timeline:**

- Abstract submission due by March 1, 2022
- Decision for full manuscripts due by May 1, 2022
- Full manuscript submission due by September 1, 2022
- Decision for publication due by December 1, 2022
- Final manuscript submission by January 1, 2023
- Anticipated publication by March 1, 2023

The final paper should be in accordance with the Journal's Guide for Authors.

<https://ijoc.org/index.php/ijoc/about/submissions#authorGuidelines>

Special section inquiries can be directed to the guest editors, Dr. Seungahn Nah at [snah@uoregon.edu](mailto:snah@uoregon.edu) and Dr. Jungseock Joo at [jjoo@comm.ucla.edu](mailto:jjoo@comm.ucla.edu).

#### **Guest Editors:**

Dr. Seungahn Nah, University of Oregon, [snah@uoregon.edu](mailto:snah@uoregon.edu)

Dr. Jungseock Joo, University of California-Los Angeles, [jjoo@comm.ucla.edu](mailto:jjoo@comm.ucla.edu)