



Selected Papers of #AoIR2020:
The 22nd Annual Conference of the
Association of Internet Researchers
Virtual Event / 13-16 Oct 2021

TOWARDS OPERATIONALIZING WHITE MALE ACCOUNTABILITY IN ARTIFICIAL INTELLIGENCE DEVELOPMENT: INTERROGATING IMPACTS OF AND SOLUTIONS TO OVERREPRESENTATION UTILIZING RELATIONAL ETHICS FRAMEWORKS

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Positionality Statement

At the outset it is important to note the author's own positionality as a white man studying AI ethics writing about how white men should engage with representational concerns within the arena of AI technology, including within the field of AI ethics.

Introduction

This paper explores how a framework of white male accountability can be operationalized within Artificial Intelligence System (AIS) development and deployment.

White men are demographically overrepresented in Artificial Intelligence (AI) technology development, research, and media coverage spaces. This overrepresentation creates immediate and downstream harms that AI corporations and technologists in the industry and the academy alike must contend with to ensure the existence of AI technologies, AI development organizations, and AI research institutions that are ethical, fair, accountable, transparent, and beneficial to all people.

It is particularly because of the historical domination that the white male identity group has claimed in AI technology spaces that white men must claim agency over that history and more actively partner in the work to make sure that history is not repeated.

Doyle, Dylan Thomas. (2021, October). *Towards Operationalizing White Male Accountability in Artificial Intelligence Development: Interrogating Impacts of and Solutions to Overrepresentation Utilizing Relational Ethics Frameworks*. Paper presented at AoIR 2021: The 22nd Annual Conference of the Association of Internet Researchers. Virtual Event: AoIR. Retrieved from <http://spir.aoir.org>.

White male overrepresentation in AI technology spaces has created complex ethical considerations that necessitate comprehensive solutions to fully address. These solutions must be both ontological and technical and must include greater white male accountability in these spaces and a shift in the foundational ethical framework of these spaces.

This paper offers a two-pronged set of considerations to the critical problem of the overrepresentation of white men in AI technology development, research, and media coverage spaces. The two prongs of this solution are (1) operationalizing white male accountability in AI technology spaces and (2) operationalizing relational ethics as the foundational ethical framework in AI technology spaces.

The Problem

The benefits of AI technology spaces disproportionately advantage white educated men at the expense of disadvantaging gender minorities, people of color, and other under-represented groups.¹ This is true at every level of AI technology spaces from the design stage to who these technologies predominantly help when they are applied on the consumer end to whose voices get featured most prominently in media representation about AI technology news.² This disproportionate advantaging of white men in AI technology spaces is part of a historical global context in which white men have disproportionately benefited from social, economic and political systems of power, especially in the context of scientific development.³

Current overrepresentation of white men in AI technology spaces has not come to exist within a socio-historical vacuum; it comes with baggage and history steeped in elements of harm. This baggage and history not only includes social systems within the technology sector but philosophical and ethical systems as well.

Applying Relational Ethics and White Male Accountability to AIS Development

In order to partially address white male accountability in AIS development relational ethics can be applied in conjunction with Kathryn Hume's AI ethics operationalization model as published in Hume's white paper entitled "Responsible AI in Consumer Enterprise: A framework to help organizations operationalize ethics, privacy, and security as they apply machine learning and artificial intelligence."⁴⁵

¹ Myers West, Sarah, Meredith Whittaker, and Kate Crawford, "Discriminating Systems: Gender, Race, and Power in AI," AI Now Institute, April 2019, <https://ainowinstitute.org/discriminatingsystems.pdf>.

² Snow, Jackie, "'We're in a Diversity Crisis': Cofounder of Black in AI on What's Poisoning Algorithms in Our Lives," MIT Technology Review, February 14, 2018, <https://www.technologyreview.com/s/610192/were-in-a-diversity-crisis-black-in-ais-founder-on-whats-poisoning-the-algorithms-in-our/>.

³ Whittaker, Meredith, et al., "Disability, Bias, and AI," AI Now Institute, November 2019, <https://ainowinstitute.org/disabilitybiasai-2019.pdf>.

⁴ Accenture Federal Services, "Responsible AI: A Framework for Building Trust in Your AI Solutions," 2019, https://www.accenture.com/_acnmedia/pdf-92/accenture-afs-responsible-ai.pdf.

⁵ Integrate.AI, "Responsible AI in Consumer Enterprise," 2019, <https://www.integrate.ai/ethics-of->

This paper offers a preliminary model for taking an ethical framework from theory into practice by offering an operationalized framework to begin embedding issues of overrepresentation into the AI technology product development cycle. This paper identifies a six step process in the AI technology development process. These six steps are 1) problem definition and scope, 2) design, 3) Data collection and retention, 4) data processing, 5) model prototyping and QA testing, and 6) deployment, monitoring, and maintenance.⁶

Specifically, to each one of the six steps in the development cycle this paper offers a recommended set of additional jobs to be done as follows:

- 1) A critical race theory analysis of who has been represented in this step including the gendered and racial makeup of the stakeholders present.
- 2) A specified list of potential impacts of how that representational makeup may impact the product and consumers downstream.
- 3) A discussion within the development team about team dynamics and whether there were specific steps taken to ensure white male accountability and the centering of the voices of folks representing other identities.
- 4) A specified list of how relational ethics drove development choices within this step.

Similarly, this paper adds a recommended set of guiding questions at each step of the development cycle as follows:

- 1) How am I centering the needs of marginalized communities in this step?
- 2) How am I prioritizing understanding and empathy of the experiences of others over accuracy of prediction and purely technological solutions?
- 3) What are the underlying values I am embedding into this step? What assumptions might I be bringing from my socio-political positionality?
- 4) How am I addressing bias, fairness, and justice in myself and my work?
- 5) How does taking these steps towards relationality and white male accountability feel for me? Do I have a space to process the personal impact of these steps?

Conclusion

The larger project of this paper is to invite those who represent a white male identity who also have influence over the future of AI technological development, research, and media coverage to more transparently engage with their pre-existing assumptions and biases while decreasing the impact of hidden prejudices. The specific ask is for white male individuals in AI technology spaces to actively partner with non-white non-male individuals through a lens of open and honest accountability grounded in relational ethics. The outcome of this accountability and partnership will be to holistically increase the ethical foundations of AI technology spaces. By creating deeper ethical foundations

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⁶ Terzi, S., Bouras, A., Dutta, D., Garetti, M. and Kiritsis, D. (2010) 'Product lifecycle management – from its history to its new role', *Int. J. Product Lifecycle Management*, Vol. 4, No. 4, pp.360–389.

in AI technology spaces based in relational morality and identity dialogue the hope is that those embedded ethical values will trickle down into the downstream outputs of those spaces such as AI technology.

Overrepresentation of white men in AI technology development, application, and media coverage has created complex ethical considerations that necessitate comprehensive solutions to fully address. These solutions must be both ontological and technical in nature and must include greater white male accountability in these spaces and a shift in foundational ethical frameworks.

The opportunities for future research are numerous. More work on what accountability means in industry, what critical race studies have to teach frameworks of justice and bias in AI technologies, and what vital questions moral philosophy invites those in industry to ask of themselves are necessary. There is a need for more data on the impacts of overrepresentation downstream in AI technology spaces. Finally, there is an immense need for studies analyzing overrepresentation in AI technology application and media coverage spaces.

