Guest editorial: Social informatics and designing for social good

"Designing for social good" has a strong interest in understanding how information and technology professionals explore issues in theory and practice through theory development, working groups and working in collaboration with users. Some things we have learned since the public launch of Chat GPT is that people are concerned with how their data are used and stored, how AI will use that data and the power of AI and other sociotechnical systems. Interest in data ethics and system accountability is on the rise as people try to understand the implications and importance of the integration of AI into our daily lives.

Still, many different approaches can be taken to investigate the problem of social good. Social informatics investigates the impact society has on technology and vice versa. In evaluating design and social good from a social informatics (SI) perspective, there is an implicit acknowledgment that both technology and society impact each other, even if that relationship is not equitable, fair or reciprocal. The same is true for developing tools, frameworks and technologies that address design, bias and fairness, all of which should be evaluated using informatics along with other theories like data feminism to uncover and present limitations, barriers and ways to improve systems, algorithms, processes, technologies and more.

This special selection of articles in "Designing for Social Good" provides critical exploration of the conceptualization, development, implementation and adoption, use and subsequent implications of ICTs for social good. By drawing on the foundations of SI, these included articles advance the discourse around technology before Chat GPT and other systems by examining integration, ethics, concerns, best practices and policy recommendations. These articles also emphasize the importance of information ethics and policy research to analyze regulations and question institutionalization processes aimed at information quality, resilience and safety.

The first paper, "Every information context is a CRiTical Race information theory opportunity: Informatic considerations for the Information Industrial Complex," by Anthony Dunbar highlights key points in the intersections of critical law theory, critical race theory (CRT) and critical race information theory (CRIT). In the paper "Epistemically violent Biases in AI Design: The Case Of DALL-E 2 and Starry AI," Blessing Mbalaka builds on the work by Joy Boulamwini and Ruha Benjamin to investigate algorithmic biases in AI-generated art about countries in Africa and the African continent. Finally, Lihle and Kalisz discuss strategic implementation of digital transformation as an approach to organizational resilience in their paper "Establishing organizational resilience through developing a strategic framework for digital transformation." Each of these articles employs a unique theoretical framework to challenge the existing structures and paradigms in society through a SI lens.

Dunbar uses the tools and principles of CRT to examine how SI applies to and can change the direction of information science paradigms. A new approach to this type of analysis was

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created by combining different frameworks, strategies and tenets. Through CRIT, it is possible to question and enhance technocratic developments throughout all socially dynamic interactions, no matter their scope or size. Dunbar shares the ways in which CRIT strives to demarginalize and decolonize information. This work is complimented by Mbalaka's investigation of AI-generated images.

The investigation of images of family by the inclusion of the word "African" in DALL-E and Starry AI is the subject of Mbalaka's paper. It should come as no surprise that the inclusion of this single word changes the results, but what is surprising is the results that each AI-image generator produces. Mbalaka investigates face rendering, cultural context and skin tone using epistemic violence as a framework in each platform and presents the results of each with a thoughtful critique and statistical analysis. Epistemic violence affects the production, circulation and of knowledge by denying or misrepresenting certain knowledge and the keepers of that knowledge. The current discourse about algorithmic bias will greatly benefit from the principles and awareness of epistemic violence. This paper is complimented by the contributions of Nkomo and Kalisz's work on organizational resilience.

Digital transformation, or the ways in which digital technologies are employed in an organizational setting to produce change, is the subject of Nkomo and Kalisz's research. The authors note that the success of an implementation of a new technology is partly dependent on workplace culture and employee well-being as well as processes and infrastructure in place. They investigate disruptions caused by technologies and the pandemic in order to evaluate the enablers of and barriers to a successful digital transformation. Finally, the authors present a framework that can be applied to many organizational contexts. This framework is designed to increase organizational resilience using the theory of needs and motivation theory as a lens for analysis.

The "Designing for Social Good" special section synthesizes three intersecting research communities – computing for social good, information ethics and policy and SI – in an effort to define sociotechnical good and promote socially positive design and practice moving forward in an applied, critical way. We hope you enjoyed reading these as much as we did.

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