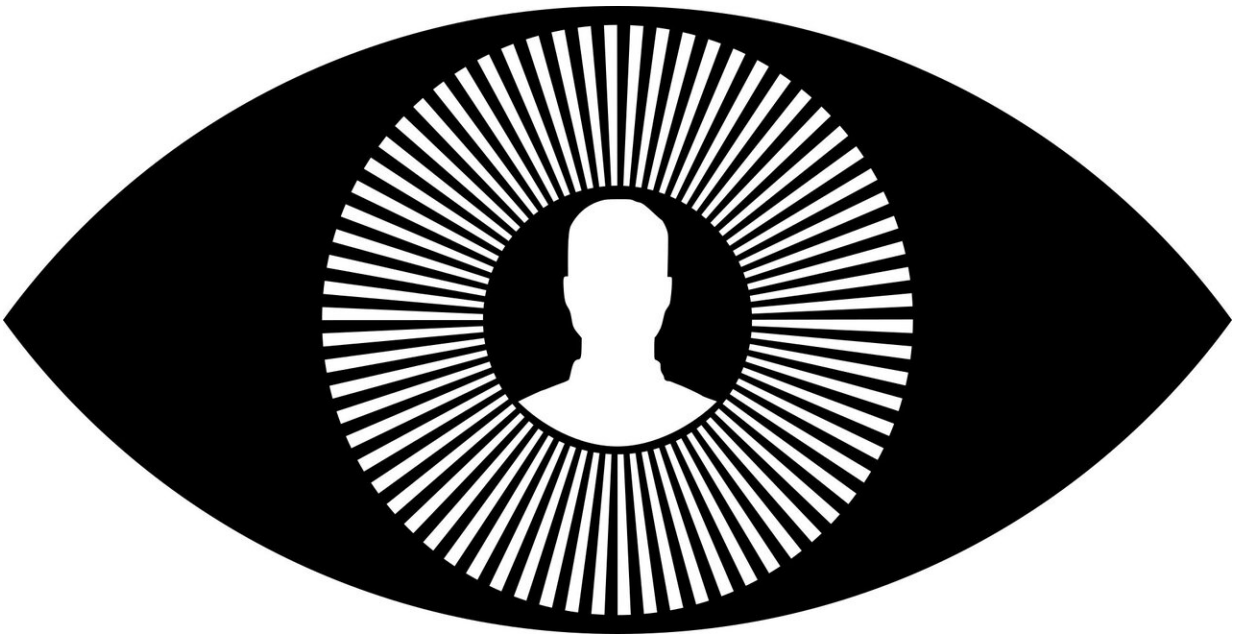
New ACM TechBrief spotlights privacy, ethics problems with facial recognition technology

February 24 2022



Credit: CC0 Public Domain

The Association for Computing Machinery's global Technology Policy Council (ACM TPC) today released "ACM TechBrief: Facial Recognition," a concise overview of an increasingly-used application which relies heavily on artificial intelligence. The brief includes a primer on facial recognition, key statistics about its growth and use, as well as

important policy implications.

This latest edition highlights that the use of AI-driven facial recognition is "increasing despite its fundamental limitations, creating profound ethical and privacy concerns." The TechBrief's "By the Numbers" chart puts key statistics about its growth and use in high relief. For example, well over 80 million Americans (nearly 25% of the nation's population) now live in jurisdictions that have banned or heavily restricted the use of facial recognition systems largely due to privacy and civil liberties concerns.

A key concern outlined by the ACM TPC is that bias (including racial and gender bias) is both pervasive and profound in facial recognition systems. The TechBrief cites several research studies demonstrating that errors often fall disproportionately on minority populations, particularly people of color.

"This is an urgent moment," explains Dr. Joshua A. Kroll, an Assistant Professor at the Naval Postgraduate School and lead author of the ACM TechBrief. "Articles about facial recognition have been all over the news lately and some of the world's leading companies are fundamentally rethinking whether or not to use the technology. But the public's understanding of the technology, as well as why it is controversial, is vague. The ACM Technology Policy Council developed this overview to familiarize people with the basics of facial recognition, as well as why many computing professionals are concerned about its potential negative impacts. We hope this TechBrief helps frame a public discussion of facial recognition and prevents people from being harmed by these technologies."

Another key concern raised in the TechBrief is the issue of privacy. The ACM TPC points out that anywhere there is a camera, individuals potentially may be identified and tracked. It therefore can be almost

impossible to avoid this without avoiding public spaces. Moreover, many commercial systems are developed using facial recognition imagery gathered without the knowledge or consent of those depicted. In one recent example, the State of Texas announced that it is suing Meta for misusing facial recognition data.

"This new TechBrief complements a 2020 statement issued by the Association for Computing Machinery's US Technology Policy Committee (ACM USTPC), which urged an immediate suspension of the private and governmental use of facial recognition technologies," added James Hendler, Professor at Rensselaer Polytechnic Institute and Chair of the ACM TPC. "In theory, the deployment of facial recognition technologies could offer societal benefits. But, in practice, unregulated facial recognition use has the potential to cause harm to the fundamental human and legal rights of individuals in areas including privacy, employment, justice and personal liberty. We hope that by providing people with an accessible overview of facial recognition technology they will understand why it must be carefully regulated before it is even more widely adopted."

This TechBrief is the second in a series of short technical bulletins by ACM TPC that present scientifically-grounded perspectives on the impact of specific developments or applications of technology. Designed to complement ACM's activities in the policy arena, TechBriefs aim to inform policymakers and others about the nature and implications of information technologies. The first ACM TechBrief in the series focused on climate change. Topics under consideration for future issues include election security, smart cities, and encryption.

More information: Joshua A. Kroll, ACM TechBrief: Facial Recognition Technology, (2022). DOI: 10.1145/3520137

Provided by Association for Computing Machinery

Citation: New ACM TechBrief spotlights privacy, ethics problems with facial recognition technology (2022, February 24) retrieved 11 May 2024 from https://techxplore.com/news/2022-02-acm-techbrief-spotlights-privacy-ethics.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.