New ACM TechBrief Spotlights Privacy, Ethics Problems with Facial Recognition Technology

New York, NY, February 24, 2022 – 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 that 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.

**About the ACM Technology Policy Council**

[ACM’s global Technology Policy Council](#) sets the agenda for global initiatives to address evolving technology policy issues and coordinates the activities of ACM’s regional technology policy committees in the US and Europe. It serves as the central convening point for ACM’s interactions with government organizations, the computing community, and the public in all matters of public policy related to computing and information technology. The Council’s members are drawn from ACM’s global membership.

**About ACM**

[ACM, the Association for Computing Machinery](#), is the world’s largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field’s challenges. ACM strengthens the computing profession’s collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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