

Every day, we interact with technology in ways that would be alien to someone three generations older. There are apps for social media, computers in our cars, and machine learning algorithms that influence all our shopping decisions. The proliferation of this technology was so quick that society has barely had chance to adapt, and we're now starting to see some of the negative impacts of integrating technology into society. As a counteractive measure to this pervasive technology, Brent Hecht has proposed that computer scientists must disclose potential negative consequences of new innovations to have their research published. This requirement will surely make some computer scientists develop in ways that are more conscientious, but it doesn't actually solve the problem of people implementing nefarious technology and researching new technologies without publishing. We should instead hold the individuals, corporations, and governments that implement these technologies accountable for their actions and gross negligence instead of targeting the authors of the research.

Ethical issues of these implementations are starting to surface all over the world and we need to determine where to direct the blame. For example, China is currently testing a social credit score by which citizens are ranked based on their friends, shopping habits, and even how they act online (Botsman, 2017). This blatant dystopian outlook is jarring, but we're becoming more conditioned to this type of influence in our lives. In fact, Rachel Botsman (2017) of *Wired* claims, "It's not hard to picture, because most of that already happens, thanks to all those data-collecting behemoths like Google, Facebook and Instagram or health-tracking apps such as Fitbit." Thus the question arises, how could we have stopped this dystopic power grab and social controlling? Would making it harder to publish Computer Science research have stopped the Chinese government? It's hard to image a scenario where this kind of limitation would have

stopped a criminal government from acting. We should, instead, be holding their leadership responsible for irreparably interfering with its citizen's lives. No amount of forethought on the part of researchers could have prevented China from acting as they are and asking researchers to imagine all negative consequences of their work wrongly shifts the blame to them.

Just like China, the government in the United States is implementing technological solutions that push us towards a similar surveillance state. One example of this technology comes from our Customs and Border Patrol (USCBP) who are implementing facial recognition and scanning to monitor people crossing into the US. Sean Keane (2018) from CNET recently reported on a case where this technology had stopped a Congolese man masquerading as a French man from crossing into the US. This is one of the first articles that claims the system is working but there are vocal opponents that correctly claim this software will be used to reinforce prejudice and systemic racism. The Electronic Frontier Foundation know this potential will soon be a reality since "Criminal databases include a disproportionate number of African Americans, Latinos, and immigrants, due in part to racially biased police practices. Therefore the use of face recognition technology has a disparate impact on people of color" ("Facial Recognition"). Is it reasonable to think that Rosenblatt (1958) could have imagined that his algorithm would be used to undermine the social fabric when he created backpropagation in the 1950s? Should we shift the blame to him for not disclosing how it could be used to impede the movement of people of color in the year 2018? Not at all, so we must instead hold accountable the people that will implement his algorithm in racist ways.

For each of these applications of Computer Science, we might ask how we could have prevented these implementations. Hecht suggests that we could monitor academic researchers by making them disclose all potential ill effects or not be published, but we have to consider that these solutions would probably still be created to benefit corporations. Also, there is the

case where researchers and peer reviewers may even miss the worst effects. Asking researchers to disclose the issues related to the technological advancements is unnecessary since companies like Amazon, Google, and Facebook have all developed and deployed solutions that infringe on the social makeup of our society without relying on traditional academic computer scientists aiming to get published. Therefore, we should hold the individuals, corporations, and governments that implement these technologies accountable for their actions because these are the groups that will continue to implement Computer Science solutions in an insidious manner unless they are reprimanded.

## References

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