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EDI and Technology

Technology is not void of biases. Afterall, the people who develop technology are human. A myth was created at some point that science and technology is separate from social and political issues: could it be that engineers and designers absolving themselves of their social responsibilities?

Tech is present everywhere in our daily lives: from our personal devices to the vehicles we drive, to our entertainment, etc. This same technology is also responsible of perpetuating new and old social and cultural biases. For instance, there are few to no airbags options for Little People who want to drive. Cameras, automatic door sensors, wearable tech such as the Apple Watch systematically do not function as intended for people with darker skin as they are tuned for white or lighter skin tones. Virtual reality headsets have a well-known sexist effect in that they cause cyber-sickness at higher rates in women due to devices being tailored and calibrated for male users.

Artificial intelligence (AI) and machine learning (ML) systems facilitated many of our tasks. Championed as the future of many of our decision-making tasks, humans delude themselves in believing that these machines are without our biases. The reality is that the data that is used to train these systems carries the full load of our societal biases, leading to AI systems belittling mental health, racial profiling, and a host of other offensive practices. These problems are usually dismissed as AI and ML systems are marketed as "unfeeling machines". Corporations are also guilty of incorporating AI and ML systems with contested and dubious features such as emotional recognition (which has no recognized scientific basis or widespread acknowledgement).

Engineers are also responsible for designing actively discriminating technology at the service of politics. The widespread surveillance apparatus deployed on Muslim communities in the West, which included an immense location data collection campaign from one of the most popular prayer applications, would not have seen the light if it was not for engineers making it possible. Furthermore, engineers are directly responsible for developing spyware technology such as the Pegasus software that specifically targets and endangers journalists and human rights activists.

Economic exclusion and environmental impact should also be at the forefront of engineering. However, it is usually not the case. Planned obsolescence in our devices to trigger more consumerism and neo-colonial ventures for rare minerals and metals to produce our electronics are common practices in the tech world. Elon Musk once tweeted "We will coup whoever we want" while referring to Bolivia's government withholding foreign exploitation of its lithium reserves.

Because of all this, engineers, designers, and scientists hold immense power in combatting social and racial biases. By acknowledging their responsibilities in the social sphere and previous omissions in the tech world, and by taking part in campaigns such as "Tech won't build it" (in Ireland), engineers can take an active stance against the systemic exclusion of peoples in the use of their products whether that discrimination is based on gender, race, class, religion, or any other discriminatory practice.