

Neurotechnology Will Worsen the Socio-economic Divide if we Let It

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The rise of traditional 'big tech' has fundamentally changed every aspect of society. Google gives us instantaneous access to any piece of cataloged information in a matter of milliseconds. Microsoft distributes an endless flow of software that quietly runs much of the infrastructure across a modernized world. Apple has perfected products that ensure all the benefits of an interconnected world are always at our fingertips. Facebook is providing unparalleled community engagement for billions of people. These companies have all contributed to building the backdrop against which modern life revolves, but each has done so at a varying price to their consumers. Apple sits behind a premium price tag, and then largely leaves us up to our own devices. Google provides unlimited access but monetizes our movement across the internet. Facebook turns our very existence into an opportunity for profit. My intent here is not to provide an exhaustive analysis on the state of the current tech behemoths, but instead to demonstrate how we already live in a society where one's wealth dictates the kind of experience one has with technology. If you are wealthy enough to pay up-front for the services or devices you use, you can exert more control over your relationship with technology. If you are using a service without charge, you are very likely the product yourself.

In this way, technology has become a complicated member of the modern life. The pairing of socially useful products with the means to generate profit for companies often creates moral paradoxes that have yet to be fully addressed. As developers strive to create ever more addictive features to increase user consumption, they create a secondary effect that tends to favor the well-off. Take phone-addiction as an example. Though virtually everyone that uses a mobile device suffers from some degree of unhealthy dependence on their phone, it is predominately the wealthy, professional class that has the extra resources to create an entire sub-market of apps that restrict screen-time or walk you through daily mediation. Those who cannot afford such luxuries or are unaware of the predatory nature of many popular apps, may very well find themselves sucked ever deeper into a cycle of impulsively consuming content that continuously generates money for a much wealthier set of people.

The natural consequence of such a phenomenon has extended to children of nearly every age. Unfettered internet access is almost explicitly designed to bring out the worst part of a person. Families without financial constraints invest in devices that restrict internet traffic or fill up their children's time with competing activities. Many of the poorest children though have found themselves essentially raised by the internet, groomed to embark on non-stop, feel good consumption that often leads them into the company of more classically predatory individuals.

Enter the emerging field of neurotechnology. It is not yet entirely clear what shape this field will take, but this means that we must act now to ensure that it does not take on the same form as the internet-based industry. Perhaps neurotechnology will never surpass a specialized medical niche, in which the still unjust but more firmly rooted, injustices will dictate access. It is more likely though that

neurotechnology will exit the medical field and become a mainstream product. Behavioral data collected by companies now will be replaced by direct neural data. Some degree of enhancement will be available to the premium consumer, while free users will be more susceptible to manipulation and predation. Sensory stimulating devices will lead to a new form of addiction, and only the well-educated and wealthy will have a chance of breaking free.

This is exactly the world we find ourselves in now, largely because the early days of the internet were left entirely to private industry to partition up and do with as they pleased. The same should not be allowed to occur with neurotechnology, and the risks if that happens are much higher. The economically repressed will find themselves completely vulnerable to the desires of corporate interests much larger than themselves. When brain-machine-interfaces can augment experience or expand capabilities – the best features will likely be reserved for the ones that can pay. Those that cannot, will be provided with products that collect data from them and funnel them into ever more time-consuming activities.

If we are to avoid this fate, neurorights should be established now, with international collaboration. A person's neural data should belong to themselves as a hard-to-reverse default, and products that exploit neurobiology should be heavily restricted and labeled as such. Imagine a world in which Snapchat came with a detailed warning explaining design choices meant to maximize your screen time. Or if Google had to pay you to sell your internet traffic to them on an opt-in basis. That private industry would quickly capitalize on neurally-interfacing devices to blindly pursue profit is not only believable, but it is the most likely scenario. Those who are already left behind in our world of technology now would find themselves quickly taken advantage of in the new system.

Beyond the basic unfairness of providing those that already have access to substantial resources with the tools to become more successful, an unregulated neurotech ecosystem would waste the best opportunity humanity has ever had to correct some of the long-standing imbalances in education and opportunity. By enshrining, in law, the basic rights of every person to control their own mental output you take as large a step forward in societal understanding as early enlightenment thinkers did with the advent of humanism. As new tools and technologies allow humans to learn at a faster rate, interact with their environment and peers in entirely new ways, and overcome evolutionary quirks, it is imperative that these tools be equally available to everyone and not barricaded behind a tiered pay wall.