Research Paper

How the Rise of the Cyborgs is Redefining our Human Identity

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Since the beginning of time, humankind has surrounded itself with machines. From simple forms like wheelbarrows to sophisticated and complex circuitry like computers. We have become accustomed to living and depending on many of these inventions. Science Fiction films and writings have been full of the idea that one day, people will become part machine and inherit superhuman qualities. This day has now come. The rise of the cyborgs is redefining our human identity. My paper will use a two-prong approach: it will establish how cyborgism occurs in our society and then look at the impact cyborgs have on our human identity. It is imperative for us to know who we are and who we want to become as human beings, as we make future decisions on the implementation of digital technology in our daily lives.

Traditionally, a cyborg is defined as “a being that is part human, part machine” (Reed, 2014, p. 218). Pop culture has picked up this idea in movies like the *Terminator* or *RoboCop*. But, “[w]e should not overstate the novelty since we have been extending our human capacities via technologies since our first ancestors built spears to hunt game” (Reed, 2014, p. 66). Humans and technical inventions have gone hand in hand since the dawn of history. Especially medical advancements like pacemakers, cochlear or prosthetic implants have made us comfortable with the idea and the functionality of incorporating machines into our bodies; of making them part of our being. As technology has evolved into the digital age, so has the definition of a cyborg. Andy Clark explains this in his book *Natural-Born Cyborgs* (2003) as follows:

> For we shall be cyborgs not in the merely superficial sense of combining flesh and wires but in the more profound sense of being human-technology symbionts:

> thinking and reasoning systems whose minds and selves are spread across biological brain and nonbiological circuitry. (p. 3)

So, in one way or another, even if we are oblivious to the fact, it makes most of us, at least in the Western world, cyborgs (Galloway, 2020) or puts us as a society on the "cyborg spectrum" (Wittes & Chong, 2014). Computers, in particular cell phones, have become this "nonbiological circuitry", which we carry with us wherever we go. They are extensions of ourselves, through which we express our feelings and opinions, store our memories, and communicate through them to the world around us. The machines have become part of us. "Our engagement with them is pervasive enough that systematic collection of data from those networks (…) inevitably appears as collection on our innermost thoughts and private lives" (Wittes & Chong, 2014, p. 19).

Has cyborgism then changed us as human beings? Is our identity now more than just our biological body, behaviour and skills? Does it also include data points we created in apps or "clouds?" Kate Galloway (2020) who applies this expansion of identity into her "thought experiment" regarding COVID-19 contact tracing apps, wonders where the "recognized boundaries of governance" for the "extended" human lies. She raises the question of whether we are potentially creating a two-tier society consisting of those who embrace cyborgism and those who prefer to stay unaugmented (Galloway, 2020). To ensure equality before the law between cyborgs and "organic humans" it is essential to expand the current human rights framework (Galloway, 2020). We have to be aware as a society that cyborgism opens doors for us beyond our human capacities, and this comes with a price. The more we "merge" with the machines, the more our human identity changes; the more our identity changes, the greater the need

for (legal) protection of our choices to either become a cyborg or to stay an “organic human.”

The invention of cochlear implants gives us a great example of the impact “machines” can have on a community. Cochlear implants are electronic devices that bypass the damaged parts of a deaf person’s ear and stimulate the auditory nerve directly (NIDCD, 2017). This enables patients with severe to profound hearing loss to have a sense of sound. Cochlear implant surgery is now offered as a “therapeutic intervention” which has “decimated” the deaf community (Lee, 2016). The new “normal” is now an “enhanced” cyborg state (cochlear implant recipient) and the unaugmented humans who want to keep their culture, history and values (deaf community) are on the verge of extinction (Lee, 2016).

> Moreover, in a world where pain is linked to measures of quality of life, there is a risk that all disabled people will have their existences described as wrongful because disability and suffering are thought synonymous (…) The natural-born *unenhanced* state is now a disability (…). This may be introduced as an obligation to treat if one is deemed a “good” parent. (Lee, 2016, p. 76)

We are seeing here in a microscopic way a rising identity crisis between cyborgs and “organic humans” for the world at large to wrestle with. The way we view imperfections and limitations will provide the basis on which we will make lifechanging decisions for ourselves and our children. Clark quotes Kevin Warnick, who expresses a growing mindset in our society, the following way: “I was born human. But this was an accident of fate— a condition merely of time and place. I believe it’s something we have the power to change” (Clark, 2003, p. 18).

Especially in the past decade, people have started to experiment with non-medical implants. These will be referred to in this paper as insertables. A study conducted by Komkaite et al. (2019) reveals that 78% of these early technology adopters are males in their twenties. The insertable of choice is a magnet or NFC (Near Field Communication) for the primary purpose of access and identification. This points towards marketing opportunities especially among the younger generation for devices replacing keys and wallets, unlocking phones or serving as identity batches. Efficiency and convenience as well as the potential use for health monitoring purposes will be key components on the way to cyborgization (Komkaite et al., 2019).

The cyborgs of tomorrow will be healthy individuals who choose to augment their bodies for personal and self-centred reasons (Pelegrin-Borondo et al., 2020). Insertables could contribute to social and personal advancement and prohibit them might be seen as unethical or as an infringement on personal freedom. Pelegrin-Borondo et al. (2020) feel strongly that cyborgization will be the next step in human evolution. They recognize that “[t]echnological implants could open up a huge social divide between Homo cyborg and Homo sapiens” (Pelegrin-Borondo et al., 2020, p. 14). As we are in the midst of this cyborg evolution we must step back and consider how technology will influence our lives and understanding as human beings. We place a high value on our rights and freedoms and these have to be extended to reflect the current technological landscape. As a society, we should also consider the very real threat of creating a “human divide” between those who embrace cyborgism and those who do not. We should engage in discussions like: Do we deny opportunities and access to services to people who prefer to stay unaugmented? How is the data cyborgs store and

create protected? We have to “understand the impact of technological innovation” because the “society-shaping role of technologies should never be underestimated” (Reed, 2014, p. 10).

The rise of the cyborgs is redefining our human identity. Cyborgs are all around us, and we are most likely one of them. It can be either through the use of medical devices, insertables or cellphones. Our human capabilities do not only become enhanced due to the synergy with the “machines” but also enabled us to experience proficiencies in areas we naturally do not possess. The desire to become cyborgs, especially among the educated younger generation, is fuelled by egocentric motivations. The implantation of this technology can be viewed as either “humanizing or dehumanizing the implantees” (Pelegrin-Borondo et al., 2020). This is reflected in the ethical debate around cochlear implants, especially for infants and children, who do not have the chance to decide for themselves what kind of identity they want to possess. Technology can, as we have seen with the invention of cochlear implants, disrupt and change the dynamics of a community profoundly. We have to be keenly aware that cyborgism can do the same in our society. As technology is rapidly progressing the lines between humans and machines seem to be eroding. We need to step out of the cycle of technological possibilities and confront what kind of world we are creating for ourselves and for the generations to come. How will we steward this change in human identity? Do we want to extinguish the Homo sapiens for the “Homo cyborg” as one might have better chances of being “competitive” than the other? Just because we can, does not mean we should!

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