uc3m | Universidad Carlos III de Madrid

OpenCourseWare

Theory of Information and Communication

Sara Martínez Cardama and Lisandra Otero Borges

1.3.1 Philosophical Perspectives on Technology

Throughout history, we have witnessed how technology has shaped much of society's progress, reaching a point of no return. In the intellectual discourse on technology at a historical level, we see how, although extreme positions have always existed, authors generally navigate between extremes, with varying degrees of skepticism, without ignoring the tremendous progress that technologies, particularly those of information and communication, have brought to society.

Therefore, it is not a matter of technophiles versus technophobes but instead of more or less optimistic stances regarding the benefits of technology and the entire ecosystem generated around it. Fear or rejection of technological advances has always existed. Let's recall the Luddite movement of the early 19th century, which directly rejected the Industrial Revolution and its developments by attacking the industrial looms that threatened artisanal jobs. While the Luddites resorted to direct action, such as machine-breaking, modern opposition to technology often takes the form of advocacy, regulation, or conscientious consumption. The philosophers and thinkers we will examine in this topic represent those movements advocating for ethical technology design, digital rights, and responsible innovation, seeking to address the negative externalities of technological progress while harnessing its potential for positive societal impact.

This interaction between humans and technology is, therefore, complex and the subject of constant debate. It reminds us of the complexities and challenges inherent in navigating the intersection of technology and society and the importance of addressing the human consequences of technological change.

The following are the authors to be studied:

1. Daniel Bell

The concept of a post-industrial society is not a picture of a complete social order, it is an attempt to describe an axial change in the social structure (defined as the economy, the technology and the stratification system) of the society

Bell, D. *The Coming of Post-Industrial Society*, 1973

As we have seen in the preceding epigraph, Daniel Bell is known for his nuanced perspectives on the impact of technology on society. One of Bell's primary contributions was his investigation into the relationship between technology and social change. In his seminal work, "The Coming of Post-Industrial Society" (1973), Bell argued that technological advancements, particularly in information and communication technologies, would precipitate a structural shift in society. Bell's discourse on the "mass knowledge society" concept played a pivotal role in shaping discussions surrounding post-industrialism, which began in the late 1960s and endured for an extended period.

Bell coined "intellectual technologies" or "decision tools" to elucidate these advancements. According to Bell, "intellectual technologies" referred to the application of computer technology in decision-making processes, ultimately leading to the substitution of human judgment with what he termed "algorithmic judgment" – that is, analytical capabilities augmented by computer processing power (Andersson, 2018).

Thus, Bell's perspective on technology was optimistic and instrumental in engendering a new rationality. In his book, "The Coming of Post-Industrial Society" (1973), he foresaw a phenomenon that resonates with contemporary echoes: the anticipation that affluent societies would undergo a process of deindustrialization and pivot their economies towards the accumulation and manipulation of information. This transition would catalyze a surge in scientific and technological advancement, resulting in the emergence of new technical elites and necessitating a reassessment of traditional notions of social class (González Férriz, 2019).

2.Alvin Toeffler

To survive, to avoid what we have termed the 'shock' of the future, the individual must become infinitely more adaptable and astute than at any previous time (...) However, before he can do so, he must more fully understand the way in which the effects of acceleration influence his personal life, seep into his behavior, and alter the quality of existence. In other words: he must understand transience (Toffler, 1973).

Alvin Toffler is other author known for the most insightful predictions regarding technological change in the second half of the 20th century and society's technological adaptation. He deeply analyzed the implications of technology on society and foresaw part of its revolution. In his work "Future Shock" (1970), Toffler coined this term to describe the confusion, anxiety, and disorientation experienced by individuals and institutions when faced with rapid and disruptive changes in society and technology. Later, in his work "The Third Wave" (1980), he outlined three critical waves in human history that transform it disruptively: the first wave being the agricultural society, followed by the industrial society (second wave), and finally, the post-industrial society (third wave), characterized by information technology and knowledge.

During the second wave, Toffler pointed out how mass media ensured uniform societal behavior. However, in the third wave, he anticipated the internet by stating that these mass media would lose influence in favor of greater diversity, creating the conceptual category of "prosumer":

> *Throughout the era of the second wave, mass media became increasingly powerful. A surprising change is occurring today. As the third wave advances, the media, far from extending their influence, are suddenly forced to share it. They are being defeated on many fronts by the 'demassified media (1981, p. 164).*

Toffler emphasized the transformative power of technology in shaping society and the economy. He anticipated these transformations and warned about the danger of marginalizing those sectors of society unable to adjust to them.

Both Daniel Bell and Alvin Toffler earned their fame through their efforts to define a new era and redefining the role of technology in relation to the concept of the information society. Both Toffler and Bell were instrumental in shaping discourse around the emergence of the information society, although they approached the topic from slightly different perspectives. Toffler focused more on the broader social implications of technological change, while Bell delved into the economic dimensions of the shift towards an information-based economy.

3. **Nicholas Carr**

The Net's interactivity gives us powerful new tools for finding information, expressing ourselves, and conversing with others. It also turns us into lab rats constantly pressing levers to get tiny pellets of social or intellectual nourishment.

(Carr, The Shallows…, 2010)

Nicholas Carr is an American scholar who has significantly contributed to the discourse on technology's impact on contemporary society.

Carr garnered attention with his article "Is Google Making Us Stupid?" published in The Atlantic in 2008, wherein he argued that the Internet, particularly search engines like Google, was altering the way people think by fostering shallow reading and fragmented attention spans (Carr, 2008):

> *I can feel it, too. Over the past few years, I've had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory. My mind isn't going—so far as I can tell—but it's changing. I'm not thinking the way I used to think. I can feel it most strongly when I'm reading and immersing myself in a book or a lengthy article used to be easy. My mind would get caught up in the narrative or the turns of the argument, and I'd spend hours strolling through long stretches*

of prose. That's rarely the case anymore. Now my concentration often starts to drift after two or three pages. I get fidgety, lose the thread, and begin looking for something else to do. I feel as if I'm always dragging my wayward brain back to the text. The deep reading that used to come naturally has become a struggle.

One of Carr's central arguments is that the Internet promotes skimming and browsing rather than deep, sustained reading. He suggests that the ease of access to information online has led to a decline in the ability to focus and engage in critical thinking.

His book "The Shallows: What the Internet Is Doing to Our Brains," published in 2010, expanded on his thesis and explored the neurological implications of digital technology on the brain's cognitive processes. The advantages of technology are threatened by an increasing superficiality and cognitive simplicity, profoundly affecting our brain biology and altering the way we think. Carr's thesis is that the Internet and its mechanisms of speed and immediacy impact our brains, making us increasingly incapable of maintaining attention. He raises concerns about the impact of technology on deep reading, contemplation, and the ability to sustain focused attention over extended periods.

4. Zygmunt Bauman

In a liquid modern life there are no permanent bonds, and any that we take up for a time must be tied loosely so that they can be untied again, as quickly and as effortlessly as possible, when circumstances change

Bauman Z (2013) Liquid Love: On the Frailty of Human Bonds.

Polish sociologist and philosopher. Bauman has dedicated his extensive career to reflecting on modernity, postmodernity, technology, and contemporary societal living. He gained international recognition for his later writings on "liquid modernity," a concept he introduced to depict present-day society's fluid and unstable nature. In his book "Liquid Modernity" (1999), Bauman clarifies the social phenomena of the modern era and distinguishes it from previous generations.

The metaphor of liquidity aims to illustrate the inconsistency of human relationships in various domains, such as affective and occupational relationships. Bauman's "liquid modernity" concept encapsulates the fluidity and uncertainty of contemporary life, where individuals navigate through rapidly changing social, economic, and technological landscapes. Since the publication of "Liquid Modernity," the philosopher has released a series of works that synthesize his ideas on the reality surrounding us: "Liquid Love" (2003), "Liquid Life" (2005), and "Liquid Times: Living in an Age of Uncertainty" (2007).

Bauman explored how technological advancements, especially in communication and information technologies, contribute to the fluidity and uncertainty of contemporary society. He acknowledged that technology has played a significant role in accelerating social change and dismantling traditional structures.

Bauman was critical of how technology can exacerbate social inequalities and contribute to the fragmentation of communities. He observed that while digital technologies have the potential to connect people across great distances, they can also lead to isolation and alienation as individuals prioritize virtual connections over face-to-face interactions.

In his later years, Bauman focused on social media, which he defined as a trap and the ultimate manifestation of human fear of abandonment (Bauman, 2017).

5. Byng Chul-Han

The smartphone is a tool of domination. It acts like a rosary

Philosopher of South Korean origin who has developed his career in Germany. Author of The Agony of Eros (2012), The Society of Fatigue (2010), and The Society of Transparency (2013). Han's work often delves into the intersection of technology, culture, and philosophy, examining how technological advancements shape our understanding of self, relationships, and society as a whole.

One of Han's notable contributions is his critique of the digital age and its effects on individual subjectivity and social dynamics. In works such as "The Burnout Society", he explores how the pervasive use of digital technologies, mainly social media and surveillance technologies, contributes to a culture of exhaustion, anxiety, and self-exploitation. About this last concept, he says:

> *The achievement-subject stands free from external instances of domination forcing it to work and exploiting it. It is subject to no one if not to itself. However, the absence of external domination does not abolish the structure of compulsion. It makes freedom and compulsion coincide. The achievement-subject gives itself over to freestanding compulsion in order to maximize performance. In this way, it exploits itself. Auto-exploitation is more efficient than allo-exploitation [other's exploiting you] because a deceptive feeling of freedom accompanies it. The exploiter is simultaneously the exploited. Exploitation now occurs without domination. That is what makes self-exploitation so efficient.*

Connecting this concept with current technology, Han reflects (Chul Han, 2019):

> *It is not true that I demonize digital media. Like all media, digital also has emancipatory potential. It gives more freedom. But what I do find very problematic is that this freedom becomes today, in many ways, coercion. There is coercion of communication to which we are subjected. And social media has influenced communication very negatively. Digital communication is often very emotional. Twitter has turned out to be an emotional medium. It allows for immediate venting of emotions. Politics based on it is passionate politics, which is no longer politics in its own sense. Trump does not govern; he tweets. He is the first tweeting president in history. He uses this medium to present himself as direct, close to the people, and authentic. But politics is mediation and reason, which require a lot of time. That is why Kant proscribed emotional impulses from the moral sphere. Morality is, like politics, a matter of reason, which is opposed to emotions. You can't teach morality by Twitter. If I criticize digital media, it is above all because they generate an illusion of freedom. In the 1980s, everyone took to the streets to protest against the elaboration of the population census. They even put a bomb in a census office. People thought that behind the development of a population census, a police state restricted their freedom and extracted information from them against their will. However, the questionnaire for the population census contained only very innocuous data, such as level of education or profession. Today, we voluntarily reveal an enormous amount of personal information, even intimate details, via Facebook or Instagram. And by doing that, we feel free, although, in reality, we are controlled. Who would today put a bomb on Facebook or Google in the name of freedom? What happens is that thanks to Google or Facebook, we feel free. Domination has been consummated the moment it revels as freedom. We voluntarily exploit ourselves. We also voluntarily undress ourselves. This is very disturbing.*

Han also examines the phenomenon of "transparency" in the digital era, where individuals willingly expose themselves to constant self-disclosure in exchange for visibility and approval. He warns against the erosion of privacy and the rise of a "society of control," where digital technologies enable great levels of control and manipulation by both state and corporate actors. He recognizes the emergence of a new social entity: the "digital swarms".

For him "the public, the senders and receivers have become a digital swarm—not a mass, or a crowd, or Negri and Hardt's antiquated notion of a "multitude," but a set of isolated individuals incapable of forming a "we," incapable of

calling dominant power relations into question, incapable of formulating a future because of an obsession with the present" (Chul Han, 2017)

5. Evgeny Morozov

I am in favor of technology, but it must be linked to a different political and economic system to achieve justice.

Evgeny Morozov is a Belarusian author and journalist renowned for his critical analysis of technology and its societal impact. He has penned several books, including "The Net Delusion: The Dark Side of Internet Freedom" (2011), wherein he challenges the optimistic notion that the internet inherently promotes democracy and freedom. Instead, he suggests that authoritarian regimes can exploit it to control and manipulate populations:

> *"The idea that the Internet favors the oppressed rather than the oppressor is marred by what I call cyber-utopianism: a naive belief in the emancipatory nature of online communication that rests on a stubborn refusal to admit its downside."*

In his second book, "To Save Everything, Click Here," Morozov critiques "technology solutionism" and offers profound and critical perspectives on contemporary hype surrounding internet and technology.

Both Chul Han and Morozov converge in steering clear of an overly optimistic view of technology, not as an object but as a product of power relations. They both address social and individual issues arising from this, such as domination, control, and individualism. These authors contribute to laying a solid foundation regarding the ethical and social challenges of integrating technology into our society and how information and communication technology (ICT) policies should consider these aspects for a more responsible integration into citizenship.