The negotiated benefits of the digitized world

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Abstract

More than two decades ago, proponents of technology envisioned complex technologies and opportunities it would present to advance human life. Many of their predictions, like that of technology as our companion, a helping hand and a confidante have already come to life as Artificial Intelligence, computational journalism, news aggregation and algorithmic personalization take over. However, the optimistic cyber-utopians failed to encompass other less positive implications which are now apparent. Today, technology (dis)empowers us. On the one hand, users can participate in digital economy as 'prosumers' without engaging in traditional institutions. On the other hand, users are required to barter their data and privacy to enjoy benefits of 'free' platforms and networks. Such negotiations have furthered the gap of digital participants into active; who actively contribute digital content, passive; who only observe or consume content over the Internet and switched-off groups; who do not yet have access to such platforms and infrastructures. Sophisticated technology and accompanying 'dataveillance', or the constant tracking and capturing of users' online activities offer more disadvantages than benefits. Although techno determinists have reiterated that control is in the hands of the users; the vast, unregulated networks point to a less than ideal path.

Keywords

privacy, data, surveillance, digital divide, digital economy

1. Introduction

The progression and diffusion of technology has transformed traditional means of communication into sophisticated digitized media. With mediated devices and automated systems, our lives have become effortless. Proponents of technology believe computers one day will do the entire work for us - they will drive for us, read for us, sort things, present them as per our preferences. For example, TV channels will be completely different from that of our neighbors', we will no longer just control basic settings like brightness and volume but also topics like 'violence, sex and political learning' (Negroponte, 1995a). With Internet of Things, technology will be highly intelligent and embedded so that we are notified of the emptying milk carton in the refrigerator (Sundararajan, 2016). In short, technology will be our companion, teacher, parent and maybe even our lover. In fact, many of the aforementioned are already taking hold with the arrival of intelligent personal assistants like Amazon's Alexa, sex robots, computational journalism, news aggregation and algorithmic personalization. However, in elaborating the splendid features of digital technologies, as a democratic tool benefitting society, advocates often fall short of describing the biases or harm such tools can cause (Morozov, 2011). Optimistic cyber-utopians fail to envision apparent scenarios where technological features shape the human mind and its behaviors, sweeping away individualistic qualities in the real world. In this paper, I examine the negotiated benefits of the digital world for users in exchange for embracing sophisticated technologies of a networked society. The article presents debates on the topic as proposed by scholars of digital revolution.

2. Technological determinism

For Negroponte (1995) being digital meant improving human life - easing our work, saving time, energy and money - making us more efficient as a society altogether. Two of Negroponte's fundamental predictions about the immediate results of post-digital media have already come to be at the start of the twenty-first century. First, multimedia, 'the commingled bits' (Negroponte, 1995a, p. 18), with the mix of audio, video and photos has created a rich yet user-friendly interface. Second, the 'connected bits', or hyperlinks, act as 'nano-endorsements' (Morozov, 2011) telling other bits, or 'headers' (Negroponte, 1995a, p. 18), to infer additional contents and information on the topic. Although many of Negroponte's projections, including complex multimedia, touch screens, digital televisions, were initially criticized, they were inevitably materialized. Just like proposed, by the second decade of the

century, the sales of e-books had already surpassed and outsold print books (Miller & Bosman, 2011).

Along with Negroponte, other proponents of the technological determinism believe the information available on the Internet not only provides citizens with abundant opportunities, but gives them a license to grow, leading to social change in a positive direction. Hauer (2017) defines technological determinism as "[t]he belief that technology is the principal initiator of the society's transformation" (Hauer, 2017, p. 1). Negroponte (1995) likewise reiterated these the 'decentralizing, globalizing, harmonizing and empowering' quality of technological progress (Negroponte, 1995b, p. 68). Furthermore, Morozov (2011) refers to such utopian belief about the Internet's power to eradicate illiteracy in Africa or to end dictatorships as the 'Google Doctrine' (Morozov, 2011). Miranda (2005), however, asserts that the statement technology is a "[q]uasi-natural force, independent of society and impervious to human agency" is actually a myth intended to hide human agency and its political interests (Miranda, 2005, p. 3). Debates on social changes brought about by technology are a never-ending process.

The convergence of electronic technologies involving multiple media accompanied with the Internet has obviously blurred the difference between distance and time, making Marshall McLuhan's vision of a 'global village' very real. It has made possible for a person from one corner of the world to connect with another thousands of miles apart with a simple finger tap on their smart phones. With 'mediated connection and interconnection' infrastructures (Silverstone, 2007; cited in Mansell, 2012) and 'mutual understanding' (Curran, Fenton, & Freedman, 2016, p. 9), digital technologies have prevalently influenced all facets of society. On the one hand, they have made 'human action and interaction' easier to perform (Benkler, 2006, p. 29), providing tools and means for greater participation (Morozov, 2011) by paving the way for 'microentrepreneurship' through the use of peer-to-peer platforms (Etsy, Airbnb etc.) and replacing traditional notions of full-time jobs (Sundararajan, 2016). On the other hand, the complexity of digital technologies has resulted in an 'asymmetric network of players' (Bruns, 2008), unequal at production level (Bolaño, 2015) and a tool for state censorship and surveillance (Morozov, 2011). As Wu (2010) points out, new communication technologies have promise of a better society and brighter future, but ultimately it is not without 'flaws, kinks and limitations' (Wu, 2010). Undeniably, the Internet has profoundly altered democratic interactions (Benkler, 2006; cited in Curran, Fenton, & Freedman, 2016) but it

has equally contributed to disparity in society, which if prolonged, can gravely impact humanity.

3. User participation in new economy

Lessig states that when digital technologies are tied to the Internet, competitive and vibrant markets are produced (Lessig, 2004), where users can participate, collaborate, produce and distribute their creativity through online platforms and engage in 'social production processes' (Curran et al., 2016, p. 165). Scholars have termed this breakthrough as "New Economy." It is informational, global and networked (Castells, 2010); it works with a collaborative approach connecting suppliers, producers and consumers in the same internetscape (Curran et al., 2016). Scholars define this process of participation either as 'prosumption', 'user-generated content' or 'produsage' (Bruns, 2008; Napoli, 2010, p. 126; Tapscott & Williams, 2006, p. 126). In New Economy markets, participants earn revenue in a 'shared economy' or through 'crowd-based capitalism' (Sundararajan, 2016, p. 108), which is "[o]utsourcing and toward open innovation and the permeable boundaries of the firm. For example, platforms like Uber, Airbnb, Etsy, BlaBlaCar, Upwork, Thumbtack, VizEat, allow participants to earn income by participating in the shared network" (Sundararajan, 2016, p. 77). They share their unused assets through these platforms, like a room via Airbnb, a car through BlaBlaCar or Uber, among many other possibilities. Then again, other ways of participation include the contribution of content in a 'collective intelligence' approach which "[r]efers to the ability of virtual communities to leverage the combined expertise of their members" (Jenkins, 2008, p. 26). Wikipedia contributors who share their knowledge and expertise without remuneration are a great example (Bruns, 2008). Wiki contributors are not motivated by money but the wish "[t]o gain status or build reputation in a given community, [...] to inform and be informed, to entertain and be entertained, to create" (Bruns, 2008, p. 85). These creators gain their knowledge and ideas from traditional media but co-innovate outputs in a more personal way, stamped with an individual identity (Tapscott & Williams, 2006). Techno-determinists affirm this participation as empowerment, of those who were previously obliged to perform traditional roles within hierarchal corporations. They believe the New Economy has afforded individuals' opportunities by ushering them into a shared and more equal network. Ironically, the rise of co-innovative creators has brought threat to property rights issues in the creative industries and compelled these industries to restrict the circulation of their products online (Mansell, 2012) - decreasing their visibility and resulting in low market reach towards extinction from the industry altogether.

Additionally, Curran et al & Keen conclude that co-innovated creation is an exploitation of paid creative labour, for its characteristics of being available free of charge (Curran et al., 2016), thus contributing to the 'gift economy' (Keen, 2015, p. 142) where only the owners of a handful of companies like Google, Youtube and Facebook, have monopolistic authority - making huge profit from these 'prosumers'. Such voluntary processes is less empowerment (Mansell, 2012) and more of an exploitation amounting to greater economic imbalance. Bauwens (2005), in contrast, disagrees with the label of 'gift economy' as it signifies an expectation of a personal return equal to the value of the contribution. He rather prefers the term 'communal shareholding' (Bauwens, 2005; cited in Bruns, 2008, p. 55) to emphasize the idea of group contributions for *other's* benefits.

4. Contested privacy and surveillance

We are now so intricately entangled with digital technologies that unmediated life is unimaginable (Deuze, 2012). People are not only adopting technologies but are welcomingly submitting to the digital world. Within this world, communication is driven by social networking platforms (Mansell, 2012). Moreover, the coalescence of technology and the "'[I]nternet of Things' (networked sensing of everything and everyone)" (Mansell, 2012, p. 16), that were supposed to make life easier and more open, have rather created a dependency. Positively, empowered citizens participating in the production process as part of a networked information economy have been able to monitor government activities and participate in democratic revolution processes (Mansell, 2012) as observed in the Arab Spring between 2009 and 2011 or the Green revolt in 2009 (Dijk, 2012). On the contrary, in exchange of empowerment, these citizens are compelled to trade their privacy by becoming a part of that very network. Dijk (2012) states, "[i]ndividual that becomes tied up with other units always loses some of its freedom and autonomy in the structured relationships of social and media networks" (Dijk, 2012, p. 120).

With connected networks and competitive markets, companies are constantly working to boost their market value through advertising revenue for which understanding their customers' interests are decisive. For companies, "[t]he more they know about demographics, customer habits, and preferences of particular customer types, the more they can tailor their products offerings, and the more they can make in sales as a result" (Morozov, 2011, p. 163). Similar motivations find companies enlisting new methods of surveillance that "[c]ollects,

process and interpret digital information for surveillance, cyber warfare, or commercial and social communication purposes" (Mansell, 2012, p. 89). Although technological proponents like the phenomenon to 'Artificial Intelligence' or 'Informational power', scholars (such as Dijk, 2012) have criticized it for violating individuals' privacy without their consent.

Commercial surveillance, or "dataveillance" (Clarke, 1987; cited in Solove, 2007) allows companies to monitor "[d]ata and traffic over a network (for example Google searches) in a form that tracks users" (Curran et al., 2016, p. 43). The collection of information on users' online behaviour, referred to as "transactional surveillance" (Slobogin, 2005; cited in Solove, 2007), monitor users' activities by installing software or extracting data from social networks (Curran et al., 2016). Bruns (2008) situates this practice as an additional e-commerce tool to study consumer behaviours through intricate data mining processes (Bruns, 2008) in order to predict future actions (Deuze, 2012). Constant surveillance by commercial technologies has captured users within an inescapable loop of individualized filter bubbles on behalf of advertisers (McChesney, 2013), where they only consume information they are selectively presented - guided by algorithms such presentation curb opportunities to explore freely.

Together with e-commerce companies, search engines and social media networks are alive only because of such massive monitoring, selling user data to inspire business strategies (Deuze, 2012). In the case of Facebook, fine-grained ads not only consider previously "liked" contents by users but also monitor friend lists' liking and buying behaviour (Morozov, 2011). Although individuals have the right to privacy and only share information with whom they wish, insidious surveillance, tracking technologies and data mining processes infringe on privacy on a daily basis. It poses an immense threat to online users, as has become evident from the recent data breach by Cambridge Analytica where more than 80 million users' data were sourced by the company through a survey (Kang & Frenkel, 2018). Nevertheless, online users continue to commodify personal freedoms and surrender their privacy to become advertising targets for simply "[a] discount coupon to be used at the Apple store" (Morozov, 2011, p. 100) as business houses constantly champion such offers in a strategic marketing push (Castells, 2010).

Deuze (2012) reflects "[n]ational governments and multinational organizations (such as the European Union) are systematically increasing their surveillance of people and places" (Deuze, 2012, p. 117). Through various acts and legislation governments have obliged tele-communications companies to store and source data (through CCTVs, biometric scanning) in

the name of national security – to keep an eye on potential criminal activities. Negroponte (1995) acknowledges concerns of privacy invasion and digital vandalism but he places the burden of data security on users, who should be responsible in their use of digital technologies (Negroponte, 1995a). What technological determinists like Negroponte fail to acknowledge is the helplessness of individuals when authoritarian governments employ integrated surveillance. Sophisticated algorithms within an evolving socially networked society already presents a favorable climate for authoritarian government to identify protestors or whistleblowers, spread propaganda or allow for creative Internet censorship (Morozov, 2011). They have the power to block websites through state controlled Internet service providers, regulate Internet cafes and web content (Boas, 2006; cited in Curran et al., 2016). Recently, the Iranian government cut social media and Internet access to halt protests (Morris, 2017), this perfectly demonstrates state abilities in the age of digital technological surveillance.

With increasing intrusion, policy on cyber spaces is an urgent concern as well. Governments recognized the threats inherent in online spaces and called for stricter regulations all the way back in 2000 due to instances of cybercrime (Castells, 2001; cited in Curran et al., 2016) but more than a decade and half later, Fish (2017) argues, no regulatory mechanisms have been devised to curb the power of algorithmic search (Fish, 2017). The vulnerability of cyberspace is increasing by the day with the Internet giants taking over the system. McChesney argues that these giants, backed by 'political muscle' from constant lobbying, are aware of their importance to the economy which makes their data tracking untouchable. For example, "[G]oogle spent $5 million on Washington lobbying during the first three months of 2012" (Castillo, 2012; cited in McChesney, 2013, p. 144). That spending has increased to over $18 million in 2017, placing Google at the top of the list before Amazon with $12.8 million, Facebook with $11.5 million, Microsoft with $8.5 million and Apple with $7 million (Abramson, 2018). Such a trend is an indicative of an imbalanced monopolistic future.

5. Digital divide

Rapid growth and convergence of technologies has challenged citizens to adapt at varying paces, creating a division among participants: active digital participants, passive digital participants and others who neither have access nor skills to participate are recognized as subsets of Internet users. The latter group, as Castells (2010) points out, comes from the 'switched off areas', that are culturally and spatially discontinuous (Castells, 2010). Even among active digital participants, not all are equipped with equal skills nor abilities to make

worthy contributions (Bruns, 2008). Younger generation of active digital participants today belong to what is now called the 'Net Generation' (Tapscott & Williams, 2006) or 'Generation C' (Bruns, 2008), who are media-savvy prosumers, with greater likeness for the authority of online platforms like Wikipedia and Facebook over traditional outlets like say, CNN. They are more thoughtful, creative and prone to exchanging content online and thus have been seen as potentially able to direct workplace and business practices (Tapscott & Williams, 2006) by embracing norms and values from schools of thoughts derived from technological progress. Alternatively, passive digital participants are isolated, predictable and invisible (Bruns, 2008) and mostly engaged in 'publish and browse' (Tapscott & Williams, 2006). Schiller (2007) calls this segmentation the 'digital divide', where power is asymmetric, again potentially threatening democracy for he believes it to be emblematic of "[t]he distribution of social power to make policy for the production and distribution of information resources" (Schiller, 2007, p. 57). Passive users fail to notice the multiplicity and interactive characteristics of the Internet (Curran et al., 2016). With increased collaboration within a networked economy abundant in opportunities, a considerable number of participants from 'switched off areas' are lagging behind and unable to enjoy the benefits, as consumer, of services such an economy may offer (for example, rides from BlaBlaCar) or, as a prosumer, where they could be earning income from online platforms, as well as expressing their voice in the vast interconnected network of listeners. At the same time, the switched off groups have saved themselves from becoming a 'product' of monopolistic online platforms (McChesney, 2013) – from being observed and recorded. Unlike online participants, the switched off groups do not rely on automated reasoning (Mansell, 2012) and thus are exempt from the filter bubble. Nonetheless, participation gap means certain people are completely ignorant of the knowledge that is proliferating online, widening an already unprecedented disparity.

6. Conclusion

Digital technologies, without any doubt, have empowered citizens to an extent. It has made possible a direct reach with the decision-makers, participate in open economic processes, generate revenue without being a part of traditional employment systems and revel in the perks of an abundantly informative and networked digital society. At the same time, the economics of participation compromise our basic right to privacy in exchange for said benefits. The promises of an open technologically sophisticated society in ways only gives way to negotiated benefits, where certain rights are surrendered for participation in the network. With the ongoing rapid pace of technological development, human evolution is at stake.

Although techno determinists claim the control is in the hands of the users, the vast networks without any frontiers and control mechanism seem to lead to an inevitable destruction.

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