Is Digitalization Dehumanization? – Dystopic Traits of Digitalization [†]

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Abstract: Most phenomena in the world have both positive and negative aspects (pluses and minuses). This is also true of digitalization. However, lately a lot more emphasis has been placed on the positive potentials of digitalization than on its negative potentials and already occurring negative effects. Digitalization is supposed to bring increased efficiency leading to greater speed and lower costs. The question is: greater speed and lower costs for whom? Who is actually profiting from digitalization in a narrow and broader sense? In this paper, I will discuss the idea that perfectly well functioning social practices, like human face-to-face communication, shopping, banking, medical care, education, administration, policing, travel, taxi, hotels, old age care (using robots), car driving, military attack (using drones), security, privacy etc. have already been or should be "disrupted" (a recent positive buzz word) and exchanged for digital services, supposedly bringing greater efficiency and sometimes a "shared economy" through increased speed and lower costs. Below, we will note a number of such examples, coming, for example, from shopping, where customers are asked to register what they buy themselves and then pay with a plastic card, in this way recording their purchase for the benefit of the shop owners, credit card company and bank, or from academic education, where knowledgeable persons lecturing can be exchanged for a digital learning environment, where students learn on their own. We will pose the question: "When is digitalization warranted and when not?" When is it better to trust established human practices than to disrupt and substitute them with digital replacements? When should we not fix what is not broken? How can we digitalize with care, avoiding disruption of some of the best practices evolved by mankind?

Keywords: digitalization; dehumanization; dystopia

1. Introduction – Digitalization – and some dystopic traits

Digitalization is the super-hype of today. Citizens are becoming "netizens", cities are becoming "smart cities", learning is becoming "smart learning" etc. etc. Perhaps a little critical evaluation is needed. Even if digitalization has both positive and negative aspects, we will here focus on some of the negative aspects. All new technologies are "disruptive", in some sense, the question is if digitalization is more "disruptive" than other technologies.

At present, especially in countries with a high degree of technological development, digitalization is very high on the political agenda. In Sweden, there has even been a proposal of lower taxes on payment for IT services brought to your home and to introduce a ministry of digitalization. It seems that everybody should be enticed or forced to come on-line. The future is digitalization.

Digitalization is supposed to penetrate everywhere. Our homes are supposed to become computer chip governed "smart homes", our cities are supposed to become "smart cities" and our clothes are supposed to become "smart clothes". Customers are asked to register what they buy themselves and then pay with a plastic card, thus recording their purchase for the benefits of the shop owners, credit-card company and bank. In academic education, lecturing by knowledgeable persons is being exchanged for digital learning environments, where students can learn on their own.

The digitalization process has been going on for about 50 years with increasing speed, and has already left archeological remains in some countries, in the form of many schools and universities full of computers that are no longer used. But it is still argued that teachers can be replaced by computer programs and on-line education.

The time has perhaps come for us to step back and ask some or all of the following questions:

1.   When is digitalization warranted and when is it not?
2.   When is it better to trust established human practices than to disrupt them and substitute them for digital replacements?
3.   When should we not fix what is not broken?
4.   How can we digitalize with care, avoiding disruption of some of the best well-functioning practices evolved by mankind?
5.   Is digitalization more disruptive than other technologies?

2. Some problems with digitalization

There are at least two types of digitalization; both with its own problems.

2.1. Digitalization or perhaps better digitization of information: non-digital books, documents, pictures and films are digitized and replaced by digitized copies

Digitization of information; non-digital books, documents, pictures and films are digitized and replaced by digitized copies. Everything is supposed to become accessible on-line and we will need no more libraries and archives. An increasing problem here is that digital technology is changing all the time, so that the devices we used ten years ago to access digitized information are no longer easily available. The result is that the digitized material disappears, while our bookshelves are still there and probably will still be there one hundred years from now.

A related problem is that we do not know what the lifetime is of the media storing the digitally stored information. Will what was digitized 20 years ago still be there in 10 years? What would happen if major electrical power cuts stopped most computers? Our societal information preservation has become a lot more vulnerable. Pious hopes and naïve trust seem to have replaced solid principles of information preservation and archiving.

2.2. Digitalization of societal functions

Digitalization of societal functions; social institutions, practices and services like the postal service, taxi service, shop assistants, customer service people, secretaries, selling train tickets, bank clerks and teachers are being replaced by so called "24 hour service" (i.e. self-service) with the help of computer programs or by digitally pointing clients and customers to frequently asked questions (FAQs). In whose interest?

Trusted services and service jobs, especially services involving human contact and direct communication, are disappearing, e.g. the direct communication between customer and shop assistant, between customer and bank clerk and between teacher and student. Human service and

contact is disappearing. The drift seems to be that all human services, that can be digitalized and replaced by computer program based services, are disappearing.

A noteworthy trait in this process is the opportunity and trend to create services where jobs, which were previously done by the service provider now instead are being done by the customers, who in some cases even have to pay the service provider for being able to do this extra work. Bank customers now themselves have to do the job previously done by the people working in the bank and in some cases also have to pay for the privilege. Shop customers have to register what they should pay themselves. Journalists are being replaced by citizens directly sending in stories.

Added to all this, is the threat of cyber-attacks, which can wipe out or distort a lot of the services and functions provided.

Since many of these services have involved people in the so-called middle class, this means that the middle class is decreasing in size. A growing concern is therefore – what jobs and services are replacing the ones that are disappearing. How many people can in the end work as developers of social media or other information systems?

Is this what we want? Are not some basic properties of the quality of life for human beings lost?

In general, digitalization is accompanied by a large amount of positive hyperbole. The focus is on the positive potential. Often, linguistic tricks are used to make people more willing to accept digitalization: "24 hour-service", "smart homes, media, cities", "social media" (instead of face-to-face meetings), "pay with a click" (forgetting about the problems of lost IDs and extra subordinate systems that also have to be dealt with), "flexible work at home" (forgetting about the need for a common work place) are positive sounding labels for what is to replace direct "face-to-face" meetings.

Very seldom is it noted that the systems are incomplete and regularly break down. Neither is it noted that digitalization is only partial – not all countries or not all parts of countries are digitized, not all citizens are digitally literate, there are power cuts and computers break down.

The less discussed end results of digitalization are often, not increased service, but loss of time and frustration in not finding human service or in waiting for systems to be fixed. Because of the misuse of digital systems, more and more security measures have been introduced; passwords and user identifications multiply and take more and more time to maintain and activate. Many telephone calls are made to correct problems that have been created by the malfunctions of the digital systems introduced. People are losing trust.

The use of the internet for criminal or terrorist activities (and in some countries, fear of political activism) have, in addition, created a reason and an excuse for the creation of firewalls, in combination with increased amounts of digital surveillance and break of digital and other privacy, carried out both by governments and companies. Similarly, our commercial habits are increasingly stored and investigated by various actors, often in the hope of enticing us to do more of the same. In addition, Facebook and other "social media" have created a culture of digital collectivism, which can be used for many purposes. Are digital netizens becoming happy, surveilled collectivists? Big brothers of many kinds are increasingly watching us.

In the wake of digitalization, also new cognitive problems have been created, the open access of the Internet in combination with search algorithms based on past searching behavior have created a risk for large scale knowledge fragmentation, where people increasingly are inhabiting their own bubbles of information, undisturbed by information that might change their beliefs.

Secondly, the open access of the Internet has made possible large-scale copy and paste, promoting a lack of independence and creativity. It has also made information easily available, thereby making memorization, learning by heart, unnecessary. How this is affecting human cognitive abilities, which used to be developed by the need to memorize new information, remains an open question.

Last, but not least, the great amount of available information has also increased the need for an evaluation of the accuracy and veracity of what is available on the Internet. There is a growing risk of large groups of people being misinformed.

3. Conclusion

The critical reflections above can be summarized as being of two main types:

1. What are the negative effects of digitalization per se? – We have identified two main problems: (i) trusted storage methods are being replaced by digital storage of uncertain durability and (ii) human services and interaction are being replaced by digital services and interaction with computer programs (de-humanization).
2. Who is profiting from digitalization (greater speed and lower costs)? More analysis should be carried out of the connection between the widening gap in the distribution of wealth in the world and digitalization.

However, new technologies cannot be stopped. Digitalization is here to stay and its effects will increase. The important question is how we can harness it and prevent its various negative effects in order to maintain human practices that for millennia have been essential for human quality of life.

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