



Extended Abstract

Homo informaticus and Information society – some critical comments

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In this presentation some technological and social trends of contemporary society are assessed and evaluated with respect to their effects on human behaviour and their humane potential. It seems useful to take a long-term perspective on these issues and compare the presence with the past phases of capitalism.

In his famous book “The Great Transformation” Karl Polanyi has shown how in the first half of the 19th century market economy in Great Britain grew into full stature. His explanation of long-term changes includes economic aspects of class interest but also points beyond them. He argues that class interest is heavily related to its standing and rank, to status and security, which is primary social. Nevertheless, the term “class” is always based on economic characteristics. Its definition depends on the different ways surplus is produced and appropriated in society. Similarly Polanyi did not give technology an essential role for shaping society. “Social not technical invention was the intellectual mainspring of the Industrial Revolution” (p. 119). This assessment seems true for the type of technological change for a certain period of time, for the age of mechanization, which was the technical backbone of Industrial Revolution. In the second half of the 19th century Marx characterized the mechanical machinery in the following way: “All fully developed machinery consists of three essentially different parts, the motor mechanism, the transmitting mechanism, and finally the tool or working machine.” (Capital, Volume I, Chapter 15). Over the centuries some parts of the mechanical machinery were fundamentally changed. New principles of energy transformation were applied. The motor mechanism, first a steam engine, was replaced by electro-mechanical drivers, by the combustion engine and by the gas turbine. Nevertheless the basic structure of mechanical machinery survived (see fig. 1).

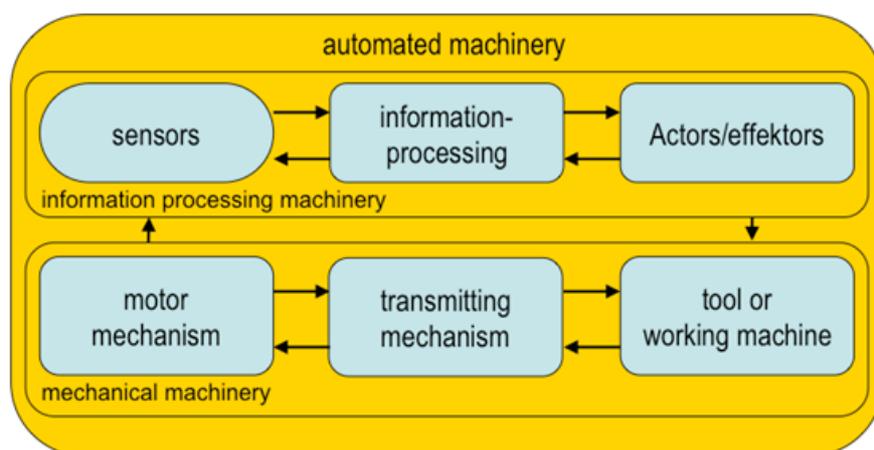
One of the most important effects of technology on human beings is the relocation of specific human activities to artefacts. The machine-tool deprived (and also relieved) the worker of the individual handling of the object of

work and of the controlling of the tool. At the same moment the worker was replaced by the motor mechanism as the source of mechanical energy. To quote Marx: “No longer does the worker insert a modified natural thing [Naturgegenstand] as middle link between the object [Objekt] and himself; rather, he inserts the process of nature, transformed into an industrial process, as a means between himself and inorganic nature, mastering it. He steps to the side of the production process instead of being its chief actor.” (<https://www.marxists.org/archive/marx/works/1857/grundrisse/ch14.htm>). It seems evident that with this side step human beings are less burdened by mechanical activities, but technical innovation per se did not change the relationships of production. Exploitation and alienation were not the direct result of technology but an effect of the restructuring of the social fabric.

When it was clear that the replacement of human labour by mechanical devices was more or less completed, the focus of technical innovation became mental work. Actually, in the middle of the 20th century, a new type of machinery emerged, replacing further elements of human labour. The “Information Processing Machine” (IPM) was born (see fig. 1). From this innovation information society took its point of departure. It allowed already transforming human perception, human decision-making (even under changing conditions) and human intervention into functions of the new technology. Human senses can now be replaced by microphones, video-cameras, thermometers, keyboards and touch-pads etc., decision making can be done by electronic devices (first electro-mechanical relays, followed by radio valves, transistors and microprocessors), which are shrinking day by day, and actors like (mechanic and electronic) switches, relays, printers, video-screens etc. allow to communicate the decisions of the machinery to the outside world (see fig. 1). The still ongoing process of automation consists of the combination of mechanical machinery with information processing systems. The latter monitors and controls the former according to computer programs. By elimination of live labour the productivity of the remaining one is boosted towards new highs. Human beings are no longer needed for those activities of the production process, which were their monopoly before.

Automation is only one of the applications of IPM. It can easily stand on its own (as mainframe computer, as personal or laptop computer or as microprocessor in smart phones), and it can be used within an electronic network. Examples are the Internet and mobile phones.

Figure 1. Automated machinery = mechanical machinery + information processing machinery



To analyse the effects of the large-scale diffusion of the IPM in its various kinds of application we have to separate the space of society into different fields. Here we focus only on the economic, social, political, and psychological spheres.

To start with economic effects we observe a tremendous reduction of all kinds of communications and transaction costs (Fleissner 1995), as well as an increase in the productivity of office work and many kinds of creative activities. The direct output of the IPM is the information good. It reaches from texts, music, pictures, videos to various kinds of software. Although information goods are non-rival ones, the capitalist system could not resist to limit artificially their use and their global availability. Commodification of the information good is performed in a dual way: The first is done by technical means, by copy protection mechanisms, the second is performed by Law. Intellectual property rights together with the increased difficulty to copy information goods allow the emergence of markets for information goods: The appropriation of profits became possible. In combination with all the electronic devices to retrieve and store information in digital form a fully-fledged industry was born from scratch. In addition to that digital communication offered a new world-wide market for services by providing more or less smart mobile phones and other supporting electronic devices with high profit rates.

Parallel to the general shrinking of the family size in the developed world down to the limit of the single household the need for social infrastructure increased considerably. Social and private security and health care systems, electronic taxation systems, accounting systems for the consumption of water, electricity or natural gas are linked electronically to the individual. They would no longer be possible without the application of computers and networks. On the other hand thousands of jobs were lost.

On the social level we can see that the behaviour of the younger people is heavily influenced by the IPM in its networked form. The exchange of information with the help of high-tech multi-functional devices which are able to record voices, take pictures, to store them and to pass them over to their friends has become one of the most important activities of children and even grown-ups. As we know now all these data is transferred to large-scale institutions of surveillance. It seems to be real fun, but the author cannot be helped to think that all the digital gimmicks are a kind of a distraction from more serious issues. The culture of exchanging selfies is booming. This corresponds very well with the methodological individualism we can find in mainstream micro-economics where the individual entrepreneur is in the centre of the game. The mass media are echoing and supporting this tendency: Casting shows are strengthening self-control of the individual to be adapted according to the demands of the media and the needs of enterprises. Advertising and marketing campaigns once more focus on the individual, not on the community. Slogans like "Geiz ist geil" ("tight is right"), "Ich habe nichts zu verschenken" ("I don't give anything away for nothing") or "einer hat es, einer wills" ("one owns it, the other wants it" ... and takes it in the advertisement) underline selfish behaviour. Hedonism flourishes. Also the behaviour during leisure time has been changed. Personal contacts are permanently interrupted by emails or other messages on the smart phone. Permanently being online and available for others ruins any contemplation and thoughtful concentration. Virtual realities offer seductive places for entertainment. There is a shift away from longer term planning of meetings towards more spontaneous forms. But also mobbing has increased by using Facebook and other social media.

Although there were high expectations in the early stages of the new media with respect to increased democracy, awaiting a power shift in favour of the lower strata of hierarchies, we learned that only a very small minority is really using the digital machinery for political purposes. On the contrary: The majority uses smart

phones and the Internet for personal exchange of information. Electronic shopping and financial transactions are another popular activity, with an impact of the distribution of shops in the real world towards large-scale suppliers like Amazon.

The author has some reason to argue that principles, structures and processes, where many individuals are involved practically, continuously or frequently will shape individual values and individual behaviour of the people. We observe a spread of egotism and egocentricity. Community-based forms of production, distribution and living are disrupted. Solidarity and mutual help have come under pressure. What is the reason of this trend? One of the main roots of spreading selfishness seems to lie in the basic structure of our economy, the legal protection of private property in any form combined with the exploitation of alien labour. This does not mean that rationality – frequently seen as the central feature of homo informaticus – has to be given up. It still depends on the content and the goals of rational thinking.

Today it becomes necessary to look for fresh ways of cooperation, solidarity and mutual help to assure a decent life for everybody and to gain back the control of the economy for the common good.

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