Technological implications, monitoring, and control in today's societies

Implicaciones tecnológicas, vigilancia y control en las sociedades actuales

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Technological innovations and technoscience or (new technologies) are breaking all the natural human development, pointing out that the most natural thing of lacking strength. Essential features of knowledge and information are being, or have already been, supplanted as in communication. But the most worrying thing is the low interest of societies regarding these issues in general, therefore this article intends to highlight these approaches in society, the concept of technology, its association with the implications, interaction with societies and the problems caused by dependence, originating a radical solution to this type of problems.

Keywords: Control, identity, information, problem, society, technology

Las innovaciones tecnológicas y las tecnociencias o (nuevas tecnologías), están rompiendo todo el desarrollo natural humano, señalando que lo más natural del ser carece de fuerza. Rasgos esenciales del conocimiento y la información están siendo suplantados, o ya lo fueron, como en la comunicación. Pero lo más preocupante es el bajo interés de las sociedades respecto a estos temas en general, por lo tanto este articulo pretende resaltar esos enfoques en la sociedad, el concepto de tecnología, su asociación con las implicaciones, interacción con las sociedades y los problemas ocasionados por la dependencia, originando una solución radical a este tipo de problemas.

Palabras clave: Control, identidad, información, problema, sociedad, tecnología

Introduction

Highlighting the change from natural human knowledge to artificial human knowledge is as important as the development of civilizations (Lu & Chen, 2017; Pert et al., 2015). This is because from this measure one can see the loss of human characteristic features or the degree of affectation (Chang, Kahle, & Hirsch, 2015). Therefore, it is important to recognize the conception and variation of such knowledge over time, because the only way to differentiate ourselves from other species is our ability to think or reason, and not skill by instinct (Amiot, Sukhanova, Greenaway, & Bastian, 2017; Prokop & Fancovicova, 2017). Thus, some consequences of the innovations are presented, such as the technologies that supplant a person's abilities, that is, the exclusion generated to man by this type of technologies, and a certain degree of surveillance and control given by technological management, are factors that will be presented in the article, demonstrated and developed.

Technological implications from two perspectives

In technology the implications or the *impact generated in society*, are developed as a second face taken into account by many as not very worthy of attention, this discredit as well as human expansionism regarding social development, are altering the essence of human characteristic features, such as bad communication between people as a result of social networks (which depend on their ability to observe human behavior, acquire information and sell that data to others), or the development of different ways to damage and end human life, some have considered the idea that the more technology we have the more we will lose our real identity.

The concept is congruent with that of technological revolution since only during the periods of greatest technical innovation is the difference in the pace of development between the two and the transcendence that exists between the generic concepts of evolution and revolution. During most of the history of mankind, the pace of such innovations was slow; however, since the Second World War mankind has experienced exponential growth in the use and development of technology.

Indicators of technological evolution reached by a civilization, express the degree of affectation, such as the different crises in today's societies resulting from the development of technology and innovations that give rise to a certain degree of surveillance and control. The importance of intellectual property plays a fundamental role, so the rapid expansion of data processing or the bits of personal data converted into highly fluid and mobile double data by the control society express the degree of interaction and dependence, forms of control such as entertainment and consumption originate the concept of surveillance, thus trying to highlight the importance of the implications *in the modern world*.

In the voice *technology*, understood as (technique or technology) a conception stands out, stories of Icarus, Daedalus and Prometheus illustrate an ambiguous conception about the valuation of the technique in the antiquity followed by a disdain for the physical work what led to all type of human being who used of his physical force to occupy the seventh place in the nine genres of life proposed by Plato (Arancibia & Verdugo, 2012), in the Middle Ages this way the work was considered, But in the contemporary world, physical work became necessary for the production of artifacts, to cover needs and generate wealth. Behind this form of subsistence, social problems appear, which provide the rich with opportunities concerning a thirst for power and control that is a product of technological innovations, since these separate human beings into economic and social classes, generating a break in natural relations, that is, in the capacity to relate naturally.

In ancient times it was thought that if an acquired knowledge was rationally contemplated by our soul, it was disposed as a true knowledge which implied reasoning, from the industrial revolution and the introduction of technologies to societies (Arancibia & Verdugo, 2012), which implied an appropriation of knowledge and remuneration for the work done, this knowledge went from being globalized to being isolated, excluded and given or taught in a very reduced way, that's why a person was forced to perform work with a low knowledge of such work to be paid and cover their own needs, of course, this was after the economy and sales of goods in society developed.

Currently, there is a union of the two perspectives, knowledge in reasoning, globalized but very reduced, this implies that societies are under the control of the highest social classes which continue to strengthen through technological management indicating the relationship technology/power/wealth, who does not have technological means is forced to a degree of subordination and also more exposed to changes in their environment.

General concept

Processes such as the industrial revolution, the great economic and social phenomenon that occurred in the mid-18th and mid-19th centuries, arise from the study of the techniques used in past and present times, and even more, intellectual assumptions that make possible the constant improvement of iron theories or their constant relationship in political, economic, social and natural aspects that, according to the minds of the ancient Greeks, made it possible to differentiate the experience of technology and apply scientific knowledge to technology to create something integrated and provide solutions to the constant need of being.

According to Plato, techne only imitates ideas that focus knowledge from the creation or improvement of an object, such objects have three kinds of techne, namely, that of their use, that of their manufacture, and that of their imitation (Arancibia & Verdugo, 2012). Thus, the work of a shoemaker is more meritorious than that of a painter because they are dedicated to imitating, however, the most experienced is the one who uses it and not the one who invents it. After all, he acquires greater knowledge through experience.

According to Aristotle, techne was not about doing things, but about knowing how to do them, since an architect possesses theoretical and rational knowledge (Arancibia & Verdugo, 2012), mainly mathematical, which he acquired through special learning and which even more fundamentally he can transmit in the same way, this type of knowledge differs from experience since this is a more universal knowledge.

Thanks to these approaches of Aristotle and Plato concerning techne and its importance, the valorization of this knowledge increased. This led to a greater focus on technical and technological conception in antiquity.

Exercising on the natural a change towards the artificial, but even more with so much current development and the lack of it arises a coherent idea that takes out of the innovations a social problem, which resembles the constant displacement that some prototypes are causing in human beings, consequently, we use the computers to save the information and we forget to retain that information in our mind, we forget to introduce reading and deduce its content by the -seeking- something simple and summarized in the information network, we have left our intelligence at the mercy of change and in such development, every moment we are more affected by technology, every moment creates more needs.

Technological implications

According to Evandro Agazzi (Agazzi, 1998), technology as such is not something modernist, because its root lies in the need to give a reason, to realize. Originating the *invention of the why* is the factor that originates at the same time, philosophy in the western sense (not as wisdom although it can also have this interpretation) and science understood as knowledge, that is to say, it originates that knowledge that wants to be guaranteed, that is to say, to be within the truth and also to know why this is the truth.

Technology is a structural element of modern scientific knowledge, but beyond its structural relationship it takes in first instance the conception of modern science and is characterized by the fact that when something is stated, it has to be found out either as experimental science or applied science, that is, His experiments are carried out employing instruments generating an artificial situation so that an

industrialized world becomes an environment completely alien to nature, *the technique that advances precisely by accumulation, modification and empirical transmission* is precisely this and consists basically of the construction by a man of an *environment* to cover part of his desire. The use of technology is not usually accompanied by knowledge of the reasons that justify *here the transition from technique to technology* and the efficiency of certain practices that are carried out. Thus, in the development of western civilization, the moment came when the simply practical dimension was added to the concern of knowing why it is better to do things in a certain way, which was called techne, being, a set of effective knowledge that is also accompanied by the knowledge of the reasons or causes why the procedure is effective or not (Quintanilla, 2017).

Impact of technology

After the historical discovery and evolution of modern natural science, given in the western civilization was applied to the technique the lodge suffix since in the Greek civilization existed more than the pure accumulation of experiences that were transmitted from generation to generation, recognizing that there are those who, besides knowing about the existence of certain effective procedures, know why they are, thanks to this suffix which wants to indicate a certain elaborated doctrine or a theory about the matter in question, technology comes to light which is more than skill or know-how, and knowledge of how to do is used, that is, it is not applying technical knowledge, it is applying scientific knowledge to technical things.

When it is stated that technology is a structural element of modern scientific knowledge, already in its beginning modern science reveals itself to be structurally connected to technology, because, first of all, it is necessary to invent, to build an instrument to *observe* nature. Secondly, the scientific *experiment* consists in the realization of an artificial situation, precisely because only within an artificial situation can one put in view what is never seen in a natural observation. Thus, experimental science is a science that already, in its birth certificate, has technology written in its roots. Evandro Agazzi, 1998, modern science appreciates observation very much, but on the condition that it is *exact*, that is, instrumental, and expands it fundamentally when it includes in what is observed, especially the consideration of the results of the experiments.

Newton develops all the consequences. In the third book of optics, in his methodological considerations, he states that in natural philosophy (as was said in his time) one must be content with generalizations obtained from phenomena. There is no longer any talk of universal principles that can possess a more guaranteed solidity than phenomena. It is these that have the decisive force. The change is therefore truly important, since before it was the theory that had the

strength and the experience that had to settle its accounts with the theory.

Scientific knowledge is constructed as objective knowledge in the following sense (Agazzi, 1998): no science deals with reality in its totality but only with its specific objects, and these objects result from considering reality from certain points of view. These concepts must be accompanied by operations of observation and measurement, to refer to reality, Then the experiment is achieved, reaching the concrete and it is then when the object is constituted. Thus, the physical object is physical in the sense that we speak of it with predicates and reference criteria used in physics or the historical object that always refers to operations of consultation of archives, documents, etc (Quintanilla, 2017). This is why technology is so important, since it allows any empirical science to construct its scope of objectives and also provides a basis for them.

Scientific truth is constructed as a consequence of many statements as scientific theories can be considered true or false in a special sense, considering the results of these statements as technological products (Agazzi, 1998). In the works of epistemology, it is said that there is a moment when a hypothesis is formulated, and then, with it, the facts that have caused the raising of such questions are explained. Some refer to this process as a degree of confirmation of the hypothesis, others, the Popperians, say that the truth of the hypothesis cannot be concluded and speak of a degree of corroboration, although they all refer to the same idea, namely, that we are not certain but that a situation of probability can be reached in which a certain function is fulfilled. Such a situation consists in the fact that we have many successful forecasts. And the technological products are the realizations of the success forecasts of scientific theories. Therefore, from this point of view, technology, through technology products, constitutes the strongest basis for accepting most of the current scientific theories, and it does not only refer to the practical use of their applications.

Technology has transformed our way of understanding science, knowing the typical product of modern science as the machine which is not something that subjugates or submits to nature but substitutes it and starting from the utopia that man can dominate nature, this would be wrong since it can be considered that the machine performs better and faster the process than nature itself the corresponding processes or tasks. Therefore what happened was not the domination of nature to put it at the service of man, the machine has an enormous advantage: inside it, there are no secrets, everything is known, perhaps not to me but the technician or specialist. If it breaks down, it can be repaired, because it is built according to a project that allows us to know how it works and to return it to its original state (Agazzi, 1998).

Technology has profoundly changed the way of understanding scientific explanation, this consists of elaborating a machine model for almost everything, it has also notably changed the way of understanding the concept of observation (Observation cannot be reduced to perception, because observation consists of attributing to something the result of what is perceived, of concept and perception), observation requires, therefore, an integration of all our faculties.

We can thus see how technology has changed the concept of observable and unobservable (Agazzi, 1998), observable is always that which can be observed through instruments, whose properties are perceptible by the senses, the scientific object is attributed properties that depend indirectly on the results of observation and measurement, but are not seen.

If we attribute to something a mass or an electric charge, such things cannot be seen but are calculated (Agazzi, 1998). Therefore, the scientific object results as a set of all these predicates, none of which is visible, but each of them is revealed through the instruments. Without this perspective, it is not possible to understand the current way of doing science, in which it can be seen very clearly how it depends on technology.

Technology and scientific knowledge

Ancient natural science was typically an observational science (Agazzi, 1998), and modern science is not an observational science in that sense. The scientific observation of modern natural science is something different because it is an observation–instrumental–a fundamental principle of the scientific methodology of the whole classical tradition was the following: nonfit scientia per visum solum, there is no science, or knowledge, only through sight or observation, because it is not through simple observation that these aspects are obtained, and that is the fundamental point. An ideal construction must be carried out, an experimental situation must be created, that is to say, an artificial situation, in which the mathematical factors can be revealed in an isolated and clear way because the common *experience* does not provide any of these ideal or pure situations.

That is, technology is included in the structure of science or this new way of knowledge. Therefore, technology is more than applied science: it is also that, but it also focuses, very deep paths within the very structure of scientific knowledge.

Surveillance concept in the modern world

In society, surveillance is constituted as a key dimension or factor, in many countries, people are aware of how surveillance affects their lives and influences human behavior and reasoning since simple purchases or simple online access are the product of *marketing* strategies that in today's society are generated by companies or organizations of any kind

to guarantee the user a full need for consumption since surveillance has been blurred especially in this consumerist sphere.

According to Bauman Zygmunt and Lyon Davis (Bauman & Lyon, 2013), surveillance in pre-20th century times was not as globalized as it was since the 9/11 attack in New York. Since then, surveillance has been spreading in unimaginable ways, responding to liquidity, but under pressure from the demands of security and control since then "security" has become more rigid, According to this, the current societies belong to the post-panoptic model, since unlike the panoptic model (being this only a model of surveillance) it does not require surveillance governed by the physical, that is to say, it is not necessary to be present in a given place to exercise a certain control that guarantees security.

The continuous improvement of a process or product which gives companies or organizations the ability to stay in the market, being the case of electronic technologies that constitute the power of mobile organizations in a way that uses the information to exercise surveillance, consequently fades into human needs. William Staples has also noted that today's surveillance occurs in cultures characterized by fragmentation and uncertainty, where the traditional meanings, symbols, and institutions of modern life dissolve before us. Thus, all the bonds, structures, and everything stable become liquid.

As an example of the above in education, Bauman starts from what he calls the syndrome of impatience, a state of mind that considers as abominable the waste of time, towards the consumerism characteristic of these times, it is not defined by the accumulation of things, but by the brief enjoyment of these, from this vision education is seen as a product more than a process, thus education seems to abandon the notion of useful knowledge for all life to replace it with the notion of knowledge of using and throwing away. Education should be a continuous action of life and not dedicated exclusively to the development of technical skills. According to this, technological innovations are displacing natural human traits as in communication.

Impact on society

Security today has become a business that deals with the future and relies on surveillance to control what will happen, using digital techniques and statistical logic, but who is responsible for this surveillance, the software designers ensure only handle the data so that their activity becomes morally neutral and their actions reasonable. According to Didier Bigo, this type of security operates by tracking everything that moves (products, information, capital, humanity) (Bauman & Lyon, 2013). Bauman states that in liquid modernity power must be free to flow, and barriers, borders, and checkpoints are an obstacle to be overcome or

circumvented. To do so, he needs to expurgate the dense networks that form social bonds, which exist fundamentally within the limits of a territory. For him, it is the fragility of these links that allows power to be imposed.

So, to what extent does the notion of liquid modernity (and liquid surveillance) help us understand what is happening in the world of monitoring, tracking, search criteria, data checking, and systematic observation that is surveillance? The answer is 'the context'. It is easy to see the expansion of surveillance as a technological phenomenon or as something associated with *social control* or *Big Brother*. But in doing so, the emphasis is on the tools and the tyrants, and the spirit that drives surveillance, the ideologies that promote it, the circumstances that make it possible, and the ordinary people who accept it, questions it, or decide that if they cannot beat it, they will join it, is ignored (Bauman & Lyon, 2013).

By 2020 a goal is presented in a public magazine by the (state) in which it is supposed to laminate the currency and with it all forms of payment that have survived from the great industry or industrial development, giving us an idea of security that lies in the consideration of a more timely and profitable economic form, but this is only a new form of monitoring and control since with this you can safely control the quality of life of people and their income, But society faces another problem that is not due to its environment but is of internal cause as a simple notion, people like to be watched this supposes, how to end the surveillance in a society that likes to be watched turning the being into (just a human hyperlink), social financial budgets, are possible thanks to the transactions, income, payments, withdrawals made at the bank, which are given to the government as a requirement. Society must be more aware of how technological innovations, social networks, consumption, the unstoppable need is affecting their lives because only with actions can change be managed, and thus not allow the natural features to disappear.

The new surveillance (Bauman & Lyon, 2013), based on processing, information, rather than on what Foucault stated, allows for new transparency in which not only citizens as such but all of us, in each of the roles we assume in our daily lives, are constantly controlled, observed, examined, evaluated, assessed and judged.

Conclusions

In today's power relations those who control the levers of power can at any moment become unreachable, live in pure inaccessibility, but this unequal treatment of power, which maintains poverty and misery in its current state, can be ended from the moment that, in large quantities, the reasoning of change and progress is given. Thus, with reflection and knowledge, we can break with the artificial. It is important to question, not to completely accept everything

that is said to cover a need because this may generate more needs instead of covering them.

In an intellectual society, in which several human characteristic changes have taken place, the factors of technological development are as important as the very need of man, I speak of a society where one is so exposed to the form of government, it is necessary to exercise a rigorous change a break of the post-panoptic culture. From the neoliberal model, which supposes to be the strongest economic and social model, several methods have been planted to finish it as, diffract the neoliberal model exposed in the book Neoliberalism in Latin America, and the simple fact that it continues in force, it can be concluded that the need of the people is stronger, and this is one of the causes why the society is so vulnerable to the changes.

To what extent is the notion of liquid surveillance useful for glimpsing what is happening in the world of monitoring, tracking, tracing, classification, verification, and systematic observation that we call surveillance? Compared to solid modernity, 150 or 200 years ago when everything seemed more durable, more enduring. Some philosophers and theorists have shown how surveillance, apparently solid and fixed, became much more flexible and mobile, filtering through and extending to many areas of life that were previously hardly affected.

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