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CONSCIOUSNESS OR COMPUTING

Abstract: *In this paper, we will ask the question of what constitutes the main characteristic of intelligence. As two main candidates for such a characteristic, we will take the acquisition of a higher degree of consciousness and self-awareness on the one hand, in contrast to the idea of rational calculus, according to which a being is more intelligent if it can better calculate the external world. We will argue in favor of self-awareness, as opposed to computing, by first noting that there are forms of life that exhibit highly calculated behavior, but we could not characterize them as either conscious (let alone self-aware) or intelligent. Then, we will project the relationship we see between these two concepts of intelligence onto the difference between human intelligence and what is called artificial intelligence. This relationship reflects in a good way the conceptual difference in the concept of intelligence that we are investigating, and on it we will be able to see the essence of this difference more precisely. Finally, we will point out the problems that can arise if one concept is replaced by another, where the problem of digital totalitarianism will open up if we identify intelligence with calculation. Once we see this, we will see that a similar problem has*

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accompanied the development of technology throughout much of its history, almost entirely in modern times. In the example of the attitude towards technology, we can also see the difference between these two understandings of intelligence.

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Throughout the history of philosophy, man has usually been portrayed as a specific being, endowed with something that other beings are not endowed with. The most common definition that has distinguished man from other living beings is his definition as a rational animal, or a self-conscious/intelligent animal. Max Scheler creates a gradation of the living world, similar to Aristotle's. According to both, the lowest level of living beings (souls) is possessed by plants – vegetative souls, then animals – which are already distinguished by some degree of reason, while at the top is the human soul. Every soul is distinguished from non-living beings by life, and accordingly, Scheler sees the need for growth and reproduction as the basic characteristic of the living, located already at vegetative soul. He writes: "From that what we call 'instinctive life' in animals, in plants we see only universal drive for growth and reproduction". Plant proves the best that life isn't 'will for power' but a drive for reproduction" (Scheler 1987: 17). Since the vegetative soul is the simplest soul, then, together with it, all other souls would also be characterized by this definition of instinctive life. In every living being, we notice a tendency to maintain its existence and produce offspring.

The next level, the animal soul, is actually characterized by rationality, defined by this author as movement and action for the purpose of improving one's survival. Scheler writes that for animals "instinct can be specialized by experience and learning" (Scheler 1987: 24), which also implies that they have memory, so Scheler adds "associative memory" (Scheler 1987: 29) to the list. At the level of plants, we can observe growth towards a source of light or some examples of adaptations towards better survival, but it is only in animals that we notice a direct assessment of the situation and action in accordance with the assessment made. In this sense, we can say that in animals we already observe some basic level of consciousness, rational behavior, and even traits of free will, understood libertarianally. They make choices about what is better for them in certain situations and move towards options that represent a more rational choice (that brings more benefits to them) given the experience available to them. Accordingly, since the animal soul is lower than the human soul and higher than the vegetative soul, this pattern of behavior can be observed in humans, but not in plants. In the end Scheler asks "since intelligence belongs to animals, is there any difference other than gradual between humans and animals?" (Scheler 1987: 43).

Finally, philosophically we can characterize the human soul through self-awareness, awareness of itself and the possibility of changing itself. It is the one that is aware of itself in its environment, can perform a reflective act of equating with itself and establish I=I. Hence, being aware of itself in its environment, it can relate more freely to it, operating with an abstract idea of purpose and goal that it will try to implement or achieve. Scheler finds a word to broadly describe everything mentioned and "that word is spirit" (Scheler 1987: 45)

defined as freedom from the surroundings. However, many authors have inferred that this spirit (or soul) is guided by the Will for power, and therefore this concept introduces another specificity as a difference from humans and other living souls. We can find indications for this in the fact that only man as a species can enjoy the pain inflicted on others, thereby confirming his power over them; in the animal world we can find forms of aggressive behavior, but not the excessive infliction of pain, let alone death, which we find in the human species, for example in cases of war. Based on this, it can be seen that historically there are at least two different characteristics that distinguish man from a mere animal, which shows that his essence is not exhausted in the mere egoistic rationalism of animals. His freedom is shown to be greater or higher than that one found in the animal world, or at least we can say that greater opportunities are open to him than are given to animals. In this sense, human behavior can be characterized as intelligent (or at least more intelligent), compared to the rational behavior that we also observe in animals.

The concept of rationality in the human world is not unambiguous. On the one hand, we call rational behavior that which leads to the realization of personal interest and the assessment of what is the greatest personal interest in a given situation; this is the concept of rationality that we talked about in the animal world. On the other hand, in the human world there is also a concept of scientific rationality, which is very close to logical thinking; according to it, rational is what can be calculated in a consistent way, objectively verified, and whose results should represent the 'objectively' best option for the thinker. Rationality in this sense is very close to the concept of scientific proofs. It would include everything

that is objectively calculable and verifiable in accordance with certain principles that were initially set, and therefore it should mean thinking that is consistent and coherent with respect to the initial principles and experience. Since animals do not have the level of consciousness to be able to posit and be aware of different principles, this type of rationality is primarily related to humans, and not to lower species; although in a certain sense it depends on the determination of rationality at a lower level, as it includes it. We can perhaps say that it represents a more sophisticated version of rationality. It should also be added that the form of rationality that we can find in animals does not yet know about mathematics, while human intelligence has the ability to think abstract and can master it. Can human intelligence be exhausted in these characteristics? Psychologists will say that there are different types of intelligence, besides mathematical-rational. Examples can be emotional intelligence, musical, spatial and others, where some forms can be found among animals while others cannot. Dragana Moro gives example of eight types of intelligence, namely “verbal-linguistic .. logico-mathematical .. visual .. kinesthetic .. musical .. interpersonal .. intrapersonal .. naturalistci” (Moro 2013: 336-7). We won’t go over every one of those, but we can say that creativity is also a feature of exclusively human intelligence, given that we cannot find art or invention in animal world. The ability to find new forms and ideas that were not previously present in experience is close to the concept of creativity that we claim is purely human. Finally, some authors also make a distinction between human souls and animal souls in general in that only the human soul is capable of committing suicide consciously

due to disappointment with the world; tho there are some exceptions in the animal world as swans.

Now let us ask the question of what artificial intelligence is and what its defining characteristics are. A. Ramu and A. Haldorai define intelligent systems in the following way: “An intelligent system is an artificial framework that both (1) acts as an agent by perceiving its surrounding, acting in that surroundings, and interacting with other agents, and (2) displays rational behavior by acting rationally (to optimize the success of its tasks) and displaying rational thought (by justifying beliefs through reasoning)” (Ramu, Haldorai 2023: 92). We see that this definition doesn’t make an equivalence between artificial and human intelligence. Too often today the question is raised about whether artificial intelligence is really intelligence, whether it can learn emotions, gain self-awareness or some form of personality. If it lacks some of the characteristics of human intelligence, we can say that it does not represent intelligence in the sense in which we use this term for humans (it doesn’t have a spirit or a soul), although in certain activities it can show a far greater degree of ability than humans. Artificial intelligence masters primarily the mathematical-logical sphere; as a product of programming, it is primarily given this structure. In addition, it is set up to relate to the world through a statistical system, which, if left to itself, either extracts statistics from the already existing experience it has collected, or uses a system of trials and errors in searching for a more optimal solution; where the target parameters towards which it is directed are given in advance (by some sort of practical axioms). In this sense, artificial intelligence certainly could not exist without a pre-existing human intelligence, which would give it initial parameters and set the structure according to which

it behaves. In all this, the trial and error system, named for this specific field - machine learning, acts as its only property that is potentially not covered by mathematical-logical intelligence, which we call rational in a sophisticated sense. If it turns out that it can also be reduced to a computational system, or if we can reduce other types of intelligence to a concept of sophisticated rationality and a trial and error system, we can say that there is an analogy between human and artificial intelligence and that they are exhausted in what we called 'computing' in the title of the text, although they both would certainly represent a sophisticated computer.

We can also observe the system of trial and error in some more intelligent animals. When crows, octopuses, monkeys and some other species are trained, we can see how through trial and error these animals can gradually find new ways to solve problems that they could not solve before, especially with the demonstration of the use of tools by humans. Given this, it seems that this ability is not something that is exclusively related to human intelligence, but can also be found at lower stages. Hence, if we claim that artificial intelligence is something that is equal to or greater than human intelligence, we essentially need to show that all other types of intelligence are reducible to sophisticated mathematical-logical intelligence. We once argued that there is a difference between the concept of truth as it appears for a formal system (which includes artificial intelligence), where truth is shown as the provability, or feasibility of a position, while for a human there are truths that are not strictly logically feasible (Bratina 2022: 142). Whatever other type of intelligence humans uses to determine the truth of unprovable positions, artificial intelligence does not possess this ability. It can

draw statistical conclusions based on observing the behavior of other people and bases its conclusions on that statistical results, but it cannot itself conceive a chain of thought that will independently lead to the determination of such truths. In this sense, we can say that artificial intelligence lacks essential creativity, the ability to invent something completely new that will prove to be true.

Of course, advocates of artificial intelligence may say that this is not a problem of artificial intelligence, but a problem of man. They can argue that all truths that are not logically derivable from some sets of basic beliefs are not truths to be trusted, that man is fallible and that his reason cannot be trusted. However, although fallible, man has the ability to change his fundamental beliefs and reconstruct his attitudes and beliefs about the world, which artificial intelligence does not. His reflexivity allows him to go beyond his initial beliefs and try to approach the problem from a different point of view, or using a different logic, while the technical capabilities on which artificial intelligence is based cannot escape the essential bivalent mold according to which, to put it simply, electricity flows or electricity does not flow in a circuit. It follows that artificial intelligence is essentially closed to classical logic, from which standpoint it must inevitably start when building more complex systems and structures, and that it ultimately has no answers to problems that cannot be solved by applying formal logic, primarily classical propositional calculus and its extensions. In this sense, reflexivity also appears to be one of the properties of human intelligence that is not fully reducible to the concept of provability of formal systems. It may even seem that without reflexivity, artificial intelligence is closer to animal intelligence than to human intelligence, although it can process data

representable through the mathematical-logical form of rationality incomparably faster, and it can be argued that it lacks sensing in a true sense.

These two concepts of intelligence are clearly not identical, although there is a tendency to present artificial intelligence as something that surpasses human intelligence due to its higher speed of mathematical-logical data processing. It is faster in this, but this does not mean that it can surpass human intelligence in all its capacities. Artificial intelligence is, after all, a program, an algorithm of a formal system, and therefore, can only defeat human intelligence in algorithmic calculation, without delving into constitutive principles. The problems that can arise from equating these two types of intelligence are numerous. To begin with, equating them derogates from the importance of human intelligence; this undermines the self-confidence of a person, who, if he believes this analogy, may actually conclude that his intelligence has been surpassed. Furthermore, by equating the functions of intelligence, man is urged not to use other potentials of his intelligence, because it implies that the given model of intelligence faithfully represents human intelligence and that it is only a matter of time before it will manage to include these other functions with its algorithm. This is where a new disappointment and apathy in human intellectual work is born, which has a detrimental effect on the aforementioned work. Ultimately, by equating human and artificial intelligence, progress would be made in the transhumanism project; the desire to chip humans and thereby improve human performance would never seem closer to reality. If this were to be realized as a project, we would be standing on the threshold of the danger of digital totalitarianism of unprecedented proportions, compared to which every previously known form of digital surveillance and totalitarianism would seem small and benign.

Let us first consider this danger. If we accept that artificial intelligence cannot represent true intelligence, it can still be used to enhance the capabilities of ordinary human intelligence. This is not a problem in itself, artificial intelligence is also designed to facilitate machine actions and save human effort. The first point of the problem is the project of transhumanism, according to which man has reached the limits of his biological development and can only be further improved by artificial means. One of its definitions by Nick Bostrom is “The intellectual and cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through applied reason, especially developing and making widely available technologies to eliminate aging and greatly enhance human intellectual, physical and psychological capacities” (Bostrom 2003: 4). In this sense, although artificial intelligence does not have to be intelligence in the true sense, transhumanists often dream of cybernetics, a way to enhance human abilities by directly connecting them with technology. In this sense, artificial intelligence can be used to enhance human intelligence, for example by chipping; examples of a different kind of cybernetics are given in advanced prostheses, which can also enhance other human abilities; prostheses based on technology. Hence, the second point of the problem is the moral component mixed with the possibilities opened up by technology. Given that all devices connected to the Internet represent possible means for collecting information, which, with certain programming knowledge, can be controlled from the outside, then there is a real danger of taking control and excess information from these prostheses. If a brain prosthesis were enabled by connecting a person to artificial intelligence, this

would also open the way for direct control of a person and their opinions.

Technology itself only provides the means to do certain things; it is a matter of human morality how and for what purposes it will be used. The pragmatic project, which evens subject's truths to its benefits, gives us a clear example of a dominant moral position that would not hesitate to resort to such a means. Moreover, for reasons of control over people by the system, understood postmodernistically, one can only expect people to be encouraged by the system to use such prostheses. The question is to what extent the brain prosthesis project is technically feasible today, but if it proves to be a successful project, the world will be on the verge of entering a new era of totalitarianism; an era in which it will be possible to control and record a person's thoughts and inner world. This is the greatest danger of digital totalitarianism, which with today's level of development (which is not negligible, on the contrary), has not yet reached its full potential, or at least the potential that is expected of it.

Why are we talking about the control that could be established over a person through digitalization? Unlike biological impulses and thoughts, which cannot be controlled that well, digital impulses and signals of electrical circuits (which are the basis of any digital content, including everything connected to the Internet, as well as artificial intelligence as a program) can be easily manipulated from the outside. In practice, this ability is called programming, or more precisely for our problem, hacking. If programming involves the formation of a program, hacking in this sense is the manipulation of a digital signal at a distance. There are

many known examples in which hacking caused major accidents, data theft, and the like, and if a person's brain were connected to the Internet network, there would be unpredictably great opportunities for external influence on his consciousness, memory and way of thinking. The influence could be so strong that media propaganda could be completely overcome and overpowered by a new way of influencing human perception and reasoning. And we are not talking about the great danger in which all the non-logical abilities of man would be found, once he was connected to a system that is ultimately reducible to machine code and the bivalent logic of one and zero. Although the possibility of artificial intelligence as a program is based on the so-called fuzzy logic (statistical logic), the machine itself on which this program is implemented will still be based on electrical circuits with the system of current flowing, current not flowing, which symbolizes one and zero in arithmetic; this machine simply has an incomprehensibly large data processing power, and can perform statistics on a large number of ones and zeros.

We have talked about the greatest danger of totalitarianism that could arise in a developed digitalized society, one which transhumanist project is making available, but this is not the only form of totalitarianism that opens up. When postmodernists like J. F. Baudrillard and M. Foucault talked about a society of control, they could only dream of the possibilities that would open up with the advent of digital surveillance cameras and mobile phones. Baudrillard sees state of affairs as "project of control and universal hegemony, one social schema that already has internal coherence of a system" (Baudrillard 1991: 63). In such a world, there is almost no need for hard power anymore, it serves only as a threat and to ensure that soft power can act, because it is much

more effective. As in the case of chips, with phones people voluntarily, even very happily, give their data, locations, correspondences and thoughts at will to a digital panopticon that monitors and sorts it all somewhere. We use the term 'panopticon' here in sense that M. Foucault provides us in: "Panopticon can be used as tool for experiments, for modifying, training or correcting individuals" (Faucault 1997: 230). The greatest salvation from this form of totalitarianism is that there is not enough human power to process all this collected data that is already available only via telephone and internet, and artificial intelligence is only there to seal and speed up things. In the current circumstances, the possibility remains open for man to reject the digital world and retreat into the world far away from it; however, if the idea of merging man with artificial intelligence is realized, such retreat will no longer be possible, because the system of surveillance and control will now be present within man himself.

We can see that the core of the problem we are sketching here is the misuse of technology. One might say that technology is inherently neutral and that the human factor is to blame for its misuse. However, the situation is actually nearly the other way around, the emergence of technology is almost always motivated by the human factor, and the factor that most often motivated the development of science is its military benefit and application. Newton discovered the laws of physics while researching how to improve the accuracy of cannon shooting. The Internet was created as a means of communication within the US military, and the telephone for the rapid transmission of information. All of these inventions only later found their applications in civilian society, but all of them were originally created for purposes other than "helping humanity". This

essentially makes technology susceptible not even to misuse, but to use for the purpose for which it was invented. In this sense, one could even say that artificial intelligence was not created to make people's lives easier, but can do so along the way, and that its main goal is closer to replacing human intelligence and the need for it, or to subject it to more control and shaping. We could say with Martin Heidegger that the essence of technology "is nothing technical" (Heidegger 1996: 259), and that its development is most often motivated by developments within the military industry. This does not mean that every scientist prefers such a use of technology, but that finances for the development of large projects have almost always been allocated for the development of those ideas that are interesting to the ruling class. Unfortunately, this economic moment cannot be separated from the history of the development of science, who knows how great the sea of unrealized ideas is that no one invested in, because certain classes could not benefit from the increase in power or profits. In this sense, most often even the world of science cannot escape some kind of will to power, by which it too has often been governed.

We see in the end how the world of science, as a world of high rational intelligence, is also subject to the will to power in some sense. We cannot claim that this world of science is exhausted in the world of the will to power, but we can see how, unfortunately, its development depends to a large extent on it. All credit to those scientists who, despite this, manage to make an invention, or to accommodate an idea so that it can serve the general benefit of people. Thanks to this, we can still however oppose the idea that human intelligence, in relation to the legacy of lower forms of the soul, is reducible to the will to power. Reflexivity, as the starting point of philosophy,

nevertheless remains present as a factor and a kind of altruism that can be derived from it (historically, let's say through the categorical imperative, but this is not the only way) retains its place in the world despite the ruling position of the will to power and pragmatic ethics project in the contemporary world. However, this conception is under attack by the will to power more than ever with the advent of pragmatism, reinforced by technical means. In the paper we have sketched a danger that threatens human intelligence, namely, the project of its reduction to binary logic and the collapse of its world into the complete openness and controllability of the external world. If one could penetrate this inner world of self-consciousness in such a vulgarly materialistic way and establish control over the thoughts and processes that occur within (which are already sufficiently threatened by the abuse from psychology and sociology), the prospects for the free development of man and humanity in the future would look very slim and it is better to try to avoid this situation. Natural differences should be maintained and supported for the purpose of diversity and breadth of development, and not collapsed and uniformized into one pattern.

We touched on this problem to some extent with the story of the anti-Enlightenment project, the culmination of which would also be a world with chipped, digitized minds that could be controlled by artificial intelligence, directing them towards their 'best interest', whatever that term ultimately means. Freedom of choice still represents a supreme philosophical value, even if not professed by every philosophy, but as a minimum it represents the basis of morality. In order for freedom to be practiced as freedom, a person must be educated (in the sense of being broadly scientifically and morally educated) and must be enlightened in the Kantian sense, which says "sapere

aude” (Kant 1974: 42) and “emergence from self-concealed immaturity” (Kant *Ibid.*). The sketched danger of digital totalitarianism that we have presented here could endanger the very freedom of will and choice, if such a project were feasible and it would ultimately represent the supreme victory of one ideology over all others.

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