

Artificial Intelligence and its consequences on future society

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1. Introduction

For thousands of years humanity has considered itself the most intelligent living species on Earth however, in a few years this statement may no longer be valid. In fact Nick Bostrom, a well-known Swedish philosopher and founding director of the Future of Humanity Institute at Oxford University, recently conducted a poll that allowed him to estimate that by 2050 the so-called Technological Singularity is expected to take place (Khatchadourian, 2015)¹. This term is used to indicate the moment in which technological development will no longer be man-controllable and an Artificial General Intelligence will succeed in self-improvement in an Artificial Super Intelligence (Sysiak, 2016)². When the singularity occurs, the destiny of the whole human species will become uncertain and susceptible to the decisions of this ASI.

The goal of this report will be to evaluate the main possible upheavals that the AI will bring in modern society, trying to consider all the stakeholders involved, and to understand how to control and make AI as safe as possible without limiting its scientific and technological development.

2. First Main Argument - The future society

The society of the future will be completely different from the current society, this is easily understandable considering the well-known Moore's law which states that the maximum computing capacity of computers doubles every 18 months (Tardi, 2019)³. Obviously, this almost exponential growth of the capacity of a calculator is closely linked to AI and neural networks and also involves their development. Let us now consider what the positive and negative aspects that will derive from this enormous evolution can be.

2.1 Positive aspects

Artificial intelligence is massively superior in terms of efficiency compared to human intelligence, taking full advantage of the potential from AI we can derive numerous benefits. For example, it will be possible to considerably reduce the activation and usage costs of each activity thanks to an accurate optimal management of the resources established by the AI, also helped by further innovative technologies such as big data and 5G (Floridi, 2018)⁴. Moreover, a better management of resources as well as helping the economy would positively influence areas such as ecology, fighting against climate change and pollution, issues that are particularly relevant for the future society.

Artificial intelligence does not need to rest, it can work without interruption and be more productive than a human being while making fewer errors (Regoli, 2019)⁵. Probably in the future all tasks will be carried out by a machine and it will no longer be necessary for human beings to work, in this way we

will all have more time for leisure and personal well-being. In addition, AI will also largely support medicine, helping diagnose diseases and better prevent them thanks to more accurate analyses (Domedica, no date)⁶. The effect of all this will almost certainly result in an increase in the average life expectancy of everyone.

2.2 Negative aspects

The negative aspects of AI are to be found in ethics and law. Among the positive aspects, the assignment of our work to machines was mentioned; this would result in delegating decisions to inanimate beings that if, due to some error or bug, would lead to more or less serious damages would make it difficult to establish the responsible person. Consider for instance the famous case of autopilot cars. In the event of a car accident, the culprit would not be easily determined between the internal stakeholders (CEO of the automobile manufacturer or the software developers) or the external stakeholders (the car owner).

Job reduction will not necessarily be synonymous with well-being because it would mean a disruption of the normality and routine of a worker's life, above all if being replaced with an AI would result in the worker's dismissal. In fact, numerous cases of revenge of former employees against their previous employers are known (Sakalle, 2017)⁷ caused by resentment and anger at the dismissal.

Finally, there is the danger of ending up manipulated or at least influenced by artificial intelligence. In fact, already in today's society algorithms are able to establish our interests by exploiting the immense amounts of data we grant online without concern, and then use them in marketing through targeted advertising (Mantovani, 2019)⁸.

3. Second Main Argument - The survival of humanity

The challenge between human evolution and the evolution of artificial intelligence is absolutely unequal: the former required and requires millions of years, the latter a few decades. It is therefore necessary to take steps to keep pace with the future. One of the most important technologies are Brain-Computers Interfaces, which allow you to interact mentally with a computer. BCI are possible thanks to how our brain works: in fact between our neurons small electrical impulses are continuously transmitted, these signals can be interpreted and used to give instructions to machines (Grabianowski, 2019)⁹.

Many scientists and entrepreneurs are mobilizing to continue BCI development, for instance one of the major companies in this field is Neuralink, a company of which Elon Musk is cofounder. At his company's presentation conference, Musk stated that creating a fully functioning BCI would help all humans keep up with artificial intelligence (Corbyn, 2019)¹⁰. In fact this technology, initially created to help paralyzed people, is slowly acquiring more and more sophisticated features and finds space in every daily activity.

Logically, even the BCIs represent a huge revolution in our society and there are scepticisms about them too. It is unknown in fact which effects these interfaces may have in the long term and, as for artificial intelligence, if it is possible that the user is in some way influenced by the BCI, if dangers

such as mind-reading and mind-control are real and if bringing the man closer to the machine could be a possible danger for all our specie, instead of helping it (Brain–computer interface, 2019)¹¹.

4. Conclusion - With great power comes great responsibility

In conclusion, only the major possible changes in society due to artificial intelligence were considered, it is not possible to accurately predict what will happen. The AI is a fascinating topic of study, it is not limited to being a technology for a single sector, it is present everywhere and permeates all the reality that surrounds and will surround us. It will be the duty of each one of us and our political representatives to make informed and wise decisions to ensure that artificial intelligence will not be the last invention of the human race, before its extinction.

References

- 1: Khatchadourian, R. (2015) The Doomsday Invention. Available at: <https://www.newyorker.com/magazine/2015/11/23/doomsday-invention-artificial-intelligence-nick-bostrom> (Accessed: 8 October 2019).
- 2: Sysiak, P. (2016) Where Are We Currently? Available at: <https://medium.com/ai-revolution/where-are-we-currently-three-calibers-of-ai-8c72a9974bc1> (Accessed: 8 October 2019).
- 3: Tardi, C. (2019) Moore's Law. Available at: <https://www.investopedia.com/terms/m/mooreslaw.asp> (Accessed: 10 October 2019).
- 4: Floridi, L. (2018) Intelligenza artificiale, Floridi: “Gli aspetti positivi e negativi sul tavolo dei Governi”. Available at: <https://www.agendadigitale.eu/cultura-digitale/intelligenza-artificiale-aspetti-positivi-e-negativi-46098/> (Accessed: 10 October 2019).
- 5: Regoli, N. (2019) 16 Artificial Intelligence Pros and Cons. Available at: <https://vittana.org/16-artificial-intelligence-pros-and-cons> (Accessed: 10 October 2019).
- 6: Domedica (no date) Intelligenza Artificiale e medicina, tra futurismo e concrete realtà. Available at: <https://www.domedica.com/intelligenza-artificiale-e-medicina-tra-futurismo-e-concrete-realta/> (Accessed: 10 October 2019).
- 7: Sakalle, A. (2017) 15 Times Fired Employees Got Revenge On Their Company. Available at: <https://www.theclever.com/15-times-fired-employees-got-revenge-on-their-company/> (Accessed: 11 October 2019).
- 8: Mantovani, R. (2019) I pericoli dell'Intelligenza Artificiale: 6 questioni delicate. Available at: <https://www.focus.it/tecnologia/digital-life/possibili-pericoli-intelligenza-artificiale> (Accessed: 11 October 2019).
- 9: Grabianowski, E. (2019) How Brain-computer Interfaces Work. Available at: <https://computer.howstuffworks.com/brain-computer-interface.htm> (Accessed: 3 October 2019).

10: Corbyn, Z. (2019) Are brain implants the future of thinking? Available at:
<https://www.theguardian.com/science/2019/sep/22/brain-computer-interface-implants-neuralink-braingate-elon-musk> (Accessed: 3 October 2019).

11: Brain–computer interface (2019) Available at:
https://en.wikipedia.org/wiki/Brain%E2%80%93computer_interface#Ethical_considerations
(Accessed: 13 October 2019).