The Near Future: Man vs. Artificial Intelligence

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Abstract: The article aims to provide an objective picture of technological developments and innovations in the field of artificial intelligence to be aware of changes in absolutely all areas and also to make assumptions for the future. As we can see, artificial intelligence will come to influence all aspects of our daily lives: from learning a foreign language, healthcare, standard of living, industry, justice, future occupations, etc. The main methods used in the study are observation and case study. The article highlights in a unique way the challenges of a future in which intelligence and consciousness no longer belong only to man. The article is important and valuable for students, scientists, researchers and more, because it provides a clear picture of the transformations that are taking place globally and a possible perspective on the future.

Keywords: artificial intelligence; research; life; creativity; progress

1. Introduction

This work aims to present what it means to be human in the digital age and how the progress of artificial intelligence will improve our lives. As main methods in my study I used observation and case study. The advancement of artificial intelligence in the short term can improve our lives in countless ways, from increasing the efficiency of our personal lives, networks and financial markets, to saving lives through self-driving cars, surgical robots and diagnostic systems. When we allow real-world systems to be controlled by artificial intelligence, doing what we want them to do, it involves solving difficult technical issues related to verification, validation, security, and control.

Researchers in the field of artificial intelligence have argued in favor of an international treaty banning certain types of autonomous weapons, in order to avoid an out-of-control arms race, which would make available to anyone who wants to pay for policies, killing machines. In the future, artificial intelligence could make the legal system fairer and more efficient by building robo-judges, provided they are transparent and impartial. Of course, the legislative system should also be updated to keep up with artificial intelligence, which poses legal problems, involving confidentiality, accountability and regulation.

Until we worry that smart cars could completely replace us, they will have largely taken our place in the job market. Society should redistribute some of the wealth created by artificial intelligence so that all people can improve their lives, otherwise social inequalities will increase greatly. With prior planning, a low-skilled company should be able to thrive not only financially, people feel that they have a purpose in activities other than jobs. In terms of jobs, today's children should choose professions in which cars do not handle, those that involve people, unpredictability and creativity.

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2. Progress

What does it mean to be human today and in this age? What do we really value in ourselves, what sets us apart from other life forms and robots? What do other people value about us, so some want to give us jobs? Regardless of our answers at some point, it is clear that the rise of technology is gradually changing them.

In 2014, Elon Musk stated that "artificial intelligence is the greatest threat to our existence" (Tegmark, 2019). Also, the warning of Stephen Hawking, a British theorist of physics and cosmologist, suffering from Charcot's disease, is all the more important as he himself is totally dependent on the devices around him: « The primitive forms of artificial intelligence we already have they have proven to be very useful [...]. But I believe that the development of a complete artificial intelligence could put an end to the human race […]. Once humans developed artificial intelligence, it would take flight on its own and redefine itself faster and faster [...]. Humans, limited by a slow biological evolution, could not compete with it and would be overwhelmed » (Tegmark, 2019).

In the short term, at least, artificial intelligence and robotics are unlikely to completely wipe out entire industries. Workstations requiring specialization in a narrow range of routine activities will be assigned to automatons. However, it will be much more difficult to replace humans with machines in less routine tasks that require the simultaneous use of a wide range of skills and that involve dealing with unforeseen scenarios.

All we value in civilization is the product of human intelligence, so if we can increase it through artificial intelligence, we can improve our lives. Even modest advances in artificial intelligence would bring improvements in science and technology, as well as corresponding reductions in accidents, diseases, injustice, wars, hardships and poverty (Boboc, 2021).

One area in which artificial intelligence has recently amazed is language. Natural language processing is one of the most dynamic areas of artificial intelligence, future successes will have a strong impact, because language is an essential human trait. The more you improve your artificial intelligence in language prediction, the better you will be able to compose responses to e-mails or continue an oral conversation. This aspect could give the appearance, at least to a novice, that a human thinking takes place. Deep learning systems therefore follow in the footsteps of a baby, through the famous Turing test, in which the machine must converse in writing well enough to make someone think he is human. But for language processing, artificial intelligence still has a long way to go.

Finance is another area that has been transformed by information technology, allowing efficient reallocation of resources anywhere in the world and facilitating advantageous financing for everything from mortgages to startup companies. The progress of artificial intelligence will provide great opportunities for profit from financial transactions in the future: most stock buying / selling decisions are now made automatically by computers.

Artificial intelligence has a huge potential to improve production, controlling robots that increase both efficiency and accuracy. While huge industrial robots build cars and planes, computer-controlled milling cutters and lathes that can be purchased at affordable prices, they use not only factories, but also workshops in local communities around the world, where enthusiasts can materialize their ideas. The more robots around us, the more important it is to check and validate their software.

If artificial intelligence can save many lives in industry, it can save even more lives in transportation. As most car accidents are caused by human error, it is believed that self-driving cars with artificial intelligence will not only be safer, but will also bring money to their owners when they do not need

them, being able to compete with Uber. and Lyft. So far, self-driving cars have proven to be safer than human drivers, and accidents highlight the importance and difficulty of validation.

Information technology has made great strides in power generation and distribution, with sophisticated algorithms that balance production and consumption in power grids, and sophisticated control systems that keep power plants safe and efficient. Future advances in artificial intelligence will make major changes in the field of energy, to adapt optimally to changing demand and supply to the individual level of roof solar panels and home energy storage systems.

Artificial intelligence has huge potential for improving healthcare. The digitization of medical records has already allowed doctors and patients to make better and faster decisions, to receive the help of experts from anywhere in the world to diagnose digital images. The best experts in this type of diagnosis could soon become artificial intelligence systems, given the rapid progress in computer imaging.

If machine learning could help to discover the relationships between genes, diseases and the response to treatment, it would revolutionize the medical act, improve the health of farm animals and lead to more resilient crops. Then, robots could become more accurate and reliable surgeons than humans. A wide variety of robotic surgeries have been successfully performed in recent years, with precision, miniaturization, and smaller incisions decreasing blood loss, pain, and recovery (Tegmark, 2019).

The communications industry is the one in which computers have had the greatest impact so far. After the introduction of computerized dashboards in the 1950s, the Internet in the 1960s, and the World Wide Web in 1989, billions of people communicate, shop, read news, watch movies, or play online games, from around the world at a click away and often for free. That booming internet of things promises to increase efficiency, accuracy, convenience and economic benefit by bringing everything online.

Byron De La Beckwith jr. he was convicted in 1994 of the 1963 murder of civil rights activist Medgar Evers, but two different white Mississippi juries acquitted him a year after the murder, although the physical evidence was essentially the same. Unfortunately, the history of justice is also full of verdicts influenced by skin color, gender, sexual orientation, religion, nationality and other factors. In principle, robo-judges could, for the first time in history, make all people truly equal before the law: they would be programmed to be identical and to treat everyone equally, applying the law transparently, without bias (Tegmark, 2019).

Robot judges could also eliminate accidental, unintentional human preferences. Efficiency would make them even more fair: by speeding up the process and making it harder for knowledgeable lawyers to influence the verdict, the act of justice would become much cheaper, which would increase the chances of a poor man or a startup company winning. a billionaire or a multinational corporation for which an army of lawyers works. Of course, these are just hypotheses in the near or distant future.

From time immemorial, mankind has suffered from famine, disease, and war. We've seen how artificial intelligence can reduce hunger and disease, but what about wars? Some argue that nuclear weapons discourage wars between countries that own them, because they are frightening. If wars are reduced to cars fighting cars, then no soldiers or human civilians are killed. In addition, future drones powered by artificial intelligence and other autonomous weapon systems are expected to be more accurate and rational than human soldiers.

Just as most chemists and biologists have no interest in building chemical or biological weapons, most artificial intelligence researchers do not want to build weapons and do not want others to tarnish their field by doing so, provoking a strong public reaction against artificial intelligence, which would diminish its future social benefits. Chemists and biologists have strongly supported international agreements that

have succeeded in banning chemical and biological weapons, just as most physicists have supported the treaties banning the placement of nuclear weapons and blinding laser weapons in space.

Because biologists and chemists once took a stand, their fields are now known primarily for creating useful drugs and materials, not biological and chemical weapons. Now the communities in the field of robotics and artificial intelligence have also expressed themselves, wanting their fields to be known for creating a better future, not new ways of killing people.

3. Jobs and Wages

So far, we have shown what impact artificial intelligence could have on us as consumers, offering us new products and services at affordable prices. But how will it influence us as workers, transforming the labor market? If we find a way to increase our prosperity through automation, without depriving people of income or goals, then we can build a fantastic future, with unparalleled free time and wealth for everyone (Harari, 2018).

Economists agree that inequality between the poor and the rich will increase. Those with left-wing political orientations argue that the main causes are globalization and economic policies such as tax cuts for the rich. Erik Brynjolfsson and his collaborator Andrew McAfee claim that the main cause is technology. Specifically, digital technology acts in three ways on inequality.

First, by replacing old jobs with ones that require more skills, technology has rewarded the educated: since the mid-1970s, the salaries of college graduates have risen by about 25%, and the salaries of those who dropped out of school have fallen by about 30%.

Second, since 2000, a growing share of corporate revenue has gone to those who own companies, not those who work in them, automation continues, and those with artificial intelligence are expected to earn from what more and more. The relationship between capital and labor can play a very important role for the rising digital economy. Now that everything from books to movies has gone digital, copies can be sold anywhere in the world at virtually zero cost, without hiring additional staff. This allows most of the profit to go to investors, not workers, and explains why the combined profit of the top three companies in Detroit (General Motors, Ford and Chrysler) in 1990 was almost identical to the combined profit of the top three companies in Silicon Valley (Google, Apple, Facebook) in 2014, the latter having nine times fewer employees and worth thirty times more on the stock market.

Third, Erik and his collaborators claim that the digital economy favors superstars over everyone else. J.K. Rawling, the author of Harry Potter, became the first billionaire writer, and became much richer than any other writer, because her stories could be transmitted in the form of text, movies and games to billions of people at a very low price.

However, what career should we advise our children to pursue? Certainly, professions in which robots do not yet manage, being unlikely to be automated in the near future. Recent predictions for when different jobs will be taken over by cars highlight some questions that are useful to ask ourselves before starting education to pursue a particular career: Does it involve interacting with people and using social intelligence?; Does it involve creativity and finding ingenious solutions ?; What does working in an unpredictable field entail? The more you can answer “yes” to many of these questions, the better your career choice is likely to be. This means that relatively safe professions are those of teacher, nurse, doctor, dentist, scientist, entrepreneur, engineer, lawyer, social worker, clergyman, artist, hairdresser or physiotherapist.

On the contrary, jobs that involve repetitive or structured actions, in predictable conditions, are likely to become automated. Computers and industrial robots have long taken over the simplest such jobs, and the technology being improved eliminates many others, from sales agent to warehouse worker, cashier, baker, cook, driver, etc.

But avoiding automation is not the only career challenge. In this global digital age, wanting to become a professional writer, film director, athlete or fashion designer is risky for another reason: although people in these professions will not be seriously competing for cars in the near future, they will be stronger. compete with other people everywhere, according to the superstar theory mentioned above, but very few will succeed.

In many cases, it is imprecise to give advice at the level of an entire field: many jobs, without being completely eliminated, will have many of their tasks automated. For example, if you want to study medicine, do not become the radiologist who analyzes the images and is replaced by the IBM Watson computer, but the doctor who prescribes the radiological analysis, discusses the results with the patient and decides on the treatment. If you want to work in the legal field, do not become that assistant who goes through thousands of documents for the documentation phase and is eliminated by automation, but the lawyer who advises his client and pleads in court. If you want to work in finance, do not become that quantitative analyst who applies algorithms to data and is replaced by software, but a fund manager who uses the results of quantitative analysis to make strategic investment decisions.

What economic policies are most useful for creating profitable new jobs? Andrew McAfee argues that there are many such policies, including massive investments in research, education and infrastructure, facilitating migration and stimulating entrepreneurship.

4. Will People Eventually become Unengaged?

What will happen if artificial intelligence continues to improve, automating more and more jobs? Many people remain optimistic, saying that automated jobs will be replaced by new, better ones. After all, this is what has happened so far, since, during the Industrial Revolution, people were worried about technical unemployment.

But others are pessimistic and claim that this time it is different, and more and more people will become not only unemployed, but unemployable. Pessimists say that the free market sets wages on the basis of supply and demand, and that the increased supply of cheap automatic labor will ultimately lead to a fall in people's wages far below the cost of living.

Some optimists say that after physical and mental jobs, the next boom will be in creative jobs, but for pessimists, creativity is just a mental process, so it will eventually be learned by artificial intelligence. Other optimists hope that the next boom will be in new professions thanks to technology, which we have not even imagined until now. Who would have imagined during the Industrial Revolution that their descendants would one day work as web designers or as Uber drivers?

The main trend of the labor market is not to orient towards completely new professions. It is not only high-tech professions, as a software developer, but also a wide range of jobs involving a low technological level, which is based on our dexterity and superior social skills, from physiotherapist to actor. However, the pessimists say that the outcome is obvious: there will be no more jobs in which people work cheaper than cars (Zolfagharifard, 2014).

So, we ask ourselves who is right, those who claim that automated jobs will be replaced by better ones or those who claim that most people will become unemployed. If the progress of artificial intelligence continues unabated, then both sides may be right. Although people talk about the disappearance of jobs in apocalyptic terms, it may not necessarily be a bad thing. Some people are obsessed with certain trades, ignoring the possibility that others have the same social value. Others say they want jobs because they give them an income and a purpose, but given the wealth of resources produced by cars, we should be able to find other ways to secure income and goals without jobs.

5. Income without Jobs

There are various proposals for the distribution of wealth, each with its supporters and critics. The simplest is the basic income, according to which all people receive a monthly payment, without preconditions or requirements. Several small-scale experiments are planned or ongoing in Canada, Finland and the Netherlands. Their promoters claim that a basic income is more efficient than other solutions such as paying social benefits for people in need, because it eliminates administrative disputes over who deserves and who does not. The payment of social benefits according to needs has also been criticized for discouraging work, which becomes irrelevant in a future without jobs, where no one works.

Governments can help their citizens not only by giving them money, but also by offering them free or sponsored services such as roads, bridges, parks, public transport, childcare, education, health care, retirement homes and internet access; some governments already provide these services to the population. Unlike basic income, such government-funded services serve two purposes: reduce the cost of living and create jobs. Even in a future where cars outnumber people in almost every trade, governments may choose to pay people to care for children, the elderly, the sick instead of programming robots to do so.

Technological progress can make many important products or services free of charge even without government intervention. For example, people used to pay to send letters or make phone calls, while now anyone connected to the internet has free access to all of them, as well as video conferencing, photo sharing, social media, online courses, and countless other new services. . Many other services, treatments that can be important for a person, such as a treatment with antibiotics that save your life, have become extremely cheap. So, thanks to technology, more and more people today have access to things they lacked in the past.

Political decisions on the distribution of society's wealth will have an effect on everyone, so everyone should participate in the discussion about the type of economy to be built in the future, not just artificial intelligence researchers, robotics and economists.

Many argue that reducing income inequality is a good idea not only in the future dominated by artificial intelligence, but also today. Although the main argument is usually moral, there is also evidence that reducing inequality makes democracy work better: when there is an educated middle class, the electorate is harder to manipulate. In turn, a better democracy is conducive to a better-managed, less corrupt, more efficient, faster-growing economy for the benefit of all.

6. Goals without Jobs

Jobs don't just give people money. In 1759, Voltaire said that "work protects us from great evils: boredom, vice, and poverty" (Voltaire, 2003). Conversely, giving people an income is not enough to guarantee their well-being. The Roman emperors offered both bread and circus to please their subjects, and Jesus said, "Man shall not live by bread alone." So, what are the precious things that jobs bring, apart from money, and how can a jobless company offer them?

The answers to these questions are extremely complicated, because some people hate their jobs and others love them. A 2012 analysis showed that unemployment tends to have long-term negative effects on well-being, while retirement has both positive and negative aspects. The growing field of positive psychology has identified some elements that strengthen the feeling that you live well and have a purpose in life and found that some jobs can give you many of these elements: a social network of friends and colleagues, a lifestyle healthy and moral, respect, self-esteem, self-efficiency, the feeling that you are needed, the feeling that you have a purpose given that you belong to a larger entity, etc. (Mnih, 2015). All these things can be achieved outside the workplace, for example through sports, hobbies, with family, friends, in teams, clubs, community groups, schools, religious and humanitarian organizations, political movements and other institutions. In order to create a society with a low degree of employment, which does not degenerate into self-destructive behavior, but thrives, we need to understand how we can stimulate these activities that induce well-being. This approach must involve not only scientists and economists, but also psychologists, sociologists and educators. If serious efforts are made to ensure the well-being of all, based on some of the well-being generated by future artificial intelligence, then society could prosper as never before. Everyone should feel happy as if they have found their dream job, and once they get rid of the compulsion to work for money, there are no limits.

7. Conclusion

In conclusion, we have no absolute guarantee that we will be able to build general artificial intelligence at the human level during our lifetime. There is no unbeatable argument that we do not have enough hardware power or that it is too expensive. We don't know how far we are from the finish line in terms of algorithms and software, but the current progress is fast, and the challenges are being met by a growing global community of talented researchers. In other words, the possibility that general artificial intelligence can eventually reach and surpass the human level cannot be ruled out.

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