

Application of AI in the Contemporary World

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Abstract

The modern world has quickly embraced artificial intelligence (AI), transforming various industries, including healthcare, finance, transportation, and education. This essay examines AI's many applications in the contemporary landscape, highlighting its revolutionary impact on business operations and everyday life.

Keywords: *Artificial Intelligence, Responsible AI Development, Data Privacy, Employment Displacement law.*

INTRODUCTION

Artificial Intelligence (AI) is a collection of systems that, in part on their own, exhibit intelligent behavior to accomplish particular goals by analyzing their surroundings and acting accordingly. AI technologies, such as voice assistants, image analysis software, search engines, and speech and facial recognition systems, can operate entirely within a virtual environment and be entirely software-based. Conversely, they can also be incorporated into hardware, such as sophisticated robotics, self-driving cars, drones, or online apps. AI has reversed itself as a result of deep learning, which has significantly improved performance on certain tasks like machine translation and picture or speech recognition. Large volumes of data gathered in massive databases and previously unheard-of processing power have allowed for remarkable advancements in these technologies. (AI for Europe 2018, p. 11).

In the middle of the 20th century, British computer and logic pioneer Alan Mathison Turing made

the breakthrough and introduced artificial intelligence. Since the Turing Machine is the name given to Turing's invention, all contemporary computers are universal Turing machines.

Three people take Turing's test, in which the other two ask questions aimed at identifying which of them is a computer (Alan Turing and the beginning of AI, b.l.).

An AI study claims that the term "intelligence" is defined in conventional fields like psychology and philosophy (Fox, 2019, p.37). Cognitive science, which has attempted to integrate psychology and AI with philosophy, neuroscience, linguistics, and other fields, is the modern equivalent of intelligence. A multidisciplinary scientific field, cognitive science studies the mind and its workings. Numerous facets of human functioning are examined, including reasoning, problem-solving, decision-making, and planning. Most of us would agree, according to the author, to be an example of intelligent behavior, whether it be natural or artificial.

The study's theoretical foundations are derived from an examination of the literature on artificial intelligence and how it has been incorporated into society. The compilation approach cited and summarized the writers' theoretical beginnings. The article's goal is to illustrate how modern technologies and artificial intelligence (AI) are affecting labor and employment. We hope that by studying AI, the area will become more focused on human-intelligence relations, ethical standards, and the necessity of education for future vocations.

Based on literature, we set two research questions:

- RQ1: How to reduce unemployment due to the spread of AI in society.
- RQ2: Who will take responsibility for the changes to make AI trustworthy.

ARTIFICIAL INTELLIGENCE IN THE GLOBAL WORLD

The steam machine, typewriter, telephone, and electricity are just a few examples of the earlier inventions that served as the foundation for today's technological advancements, which are produced and aided by the ever-increasing development of modern technology, hardware, software, and computer and information business models (Raiz Mir, Majed Qadri, and Mahnaz Hassan, 2014, p.608). A variety of strategic variables must be taken into consideration if Europe is to fully benefit from new innovation. It must put more emphasis on the future than the past. According to Atkinson and Ezell (2019), European policymakers ought to consider certain elements of the foundations that lower the European Union's appeal as a location for foreign investment in information and communication technology.

In the future, there could be serious repercussions if a small number of nations dominate superior AI. According to Wagner (2018), technologically sophisticated nations might actually become AI carriers and guarantee that significant resources are dedicated in the long run.

All nations embrace AI trends. With a focus on both developed and developing nations, AI is present everywhere and vying for supremacy in this field. China wants to become a global leader in artificial intelligence. With a \$150 billion investment, China has declared that it will become a leader in AI by 2030. Since the United States is actively competing with them and they are already at the forefront of this field of study, the aim is entirely achievable. State participation, funding cuts, rising educational costs, and stringent immigration restrictions for foreign research experts have all contributed to the uncertain and deteriorating future of AI in the US.

The UK is a frontrunner with over 121 AI businesses because it heavily invests in and supports AI research and robotics. Every year, Russia spends over \$12.5 million on AI. With the technical know-how to execute and foster technological innovation and play a leading role in robotics, Germany is technically efficient. In 2017, Norway initiated expedited investments totaling \$11 million to establish technological clusters. The Swedish public is 80% satisfied with robotics and artificial intelligence. The widespread consensus in Sweden is that artificial intelligence (AI) will enhance human abilities and give the country a competitive edge in the global market. Together with Germany, France will invest 1.8 billion USD in AI research. Fast-growing India has made significant strides in the digital sphere and invested 8% of its GDP on

encouraging AI growth (Sirvastava, 2019). Slovenia has big aspirations in the AI space as well. An agreement was reached in March 2020 between the Government of the Republic of Slovenia and the United Nations Organization for Education and Culture (UNESCO) to build the first international research center for artificial intelligence (AI) under UNESCO's auspices, located in Ljubljana (Zorc, Lozej, and Blaznik, 2020, p. 7–8).

We sense AI more and more globally, according to Lee (2019, p. 308–312). The most commercially successful applications of AI will be in the US and China, but all other nations will undoubtedly contribute significantly to broader social advancement. There are many similarities between the 1960s space race and the current AI race. The goal of competition should be to find solutions to shared issues. New concessions on sensitive topics, such as data privacy, digital monopolies, internet security, and algorithm bias, will require constant attention from state authorities.

BUSINESSES AND THE ECONOMY IN THE AGE OF ARTIFICIAL INTELLIGENCE

Quickly expanding. A growing number of European businesses are emigrating from Europe in quest of

more expansion that Europe cannot provide. Without targeted investments and digitalization initiatives, no European Union industrial policy can be successful. Therefore, a clear plan for leveraging the potential of platforms and data for SMEs in the digital era of expansion is required.

Information technology and operational technologies are convergent thanks to digital technologies. Value networks are created by combining industrial businesses to jointly develop technical solutions and raise the value of a service or product. This is a transformation of industrial-style supply chains. Industrial platforms facilitate the process of establishing connections between customers, sellers, and other market participants in order to suit their individual demands.

rapidly growing In search of further expansion beyond what Europe can provide, an increasing number of European enterprises are leaving the continent. There can be no successful industrial policy of the European Union without focused investments and digitization initiatives. For SMEs to succeed in the digital era of growth, a well-defined strategy for utilizing platforms and data is necessary. Digital technologies are bringing information technology and operational technologies together. Combining industrial companies to collaboratively develop technical solutions and increase the value of a service or product results in value networks. This is a change from supply chains that are industrial in nature. In order to meet the needs of each individual, industrial platforms make it easier for buyers, suppliers, and other market participants to connect.

quickly expanding European businesses are increasingly fleeing the region in pursuit of expansion beyond what Europe can provide. The European Union's industrial policy cannot succeed without targeted investments and digitization projects. SMEs must have a clear plan for using platforms and data if they are to thrive in the digital age of expansion. The convergence of operational and information technologies is being facilitated by digital technologies. Value networks are produced by bringing together industrial businesses to jointly develop technical solutions and raise the value of a service or product. Supply chains that are industrial in nature are different from this. To address the demands of each individual, industrial platforms facilitate connections between suppliers, purchasers, and other market participants.

According to Demir, Doven, and Sezen (2019, p. 688), we are at the nexus of the Fourth Industrial Revolution (Industry 4.0), which stands for smart manufacturing for the future. Hasafe Visions in Industry 5.0, one of them are the cooperation of humans and robots. In order to adapt AI technology to human rules, Industry 5.0 places humans at the center. Significant progress has been made in the study of AI and robotics in recent years. Our lives and workplaces will soon involve intimate collaboration with robots.

Industry 4.0 spent a decade concentrating more on digitalization and artificial intelligence than on the fundamental tenets of social justice and sustainable development. Industry 5.0 places a strong

emphasis on the value of research and innovation in sustaining the sector over the long term for the benefit of people and the earth. The three pillars of industry 5.0 are, in general, human attention, sustainability, and resilience. Anything other than the environment and social advantages goes into

accounting for profit in a globalized world. In order to create true prosperity for everyone, industry

5.0 needs to consider a number of aspects, accept accountability for innovations that aim to increase profitability and cost-effectiveness, and consider other stakeholders including customers, workers, investors, society, and the environment.

The starting point is not to study new technology but to increase the effectiveness of focusing on the human approach in the industry. What matters is what technology can do and do for humankind. The goal is to use technology to adapt production to the worker's needs, which means that we train and adjust it and run it accordingly. The use of new technologies must be without prejudice to the foundations of workers' rights, such as the right to privacy, autonomy and human dignity. Therefore, the fundamental task is to develop circular processes that reuse or recycle natural resources to reduce waste and environmental impact. AI may be very helpful in minimizing waste and optimizing the usage and consumption of resources. The vulnerability of the existing strategy is demonstrated by natural disasters like the COVID-19 epidemic and geopolitical changes. It is necessary to balance globalized production and modify its capacities to meet fundamental human requirements like security and healthcare. According to Breque, Nul, and Petridis (2021), Industry 5.0 places workers at the center of the production process in order to accomplish societal goals that result in new jobs, growth, and prosperity (p. 13–15).

The global economy as a whole has transformed due to the spread of digital technologies. In order to carry out the digital development of the economy, the education and training of highly qualified personnel must be significantly improved as a result of the continued expansion of digitization. The process of building and growing digital competencies among industrial personnel requires the involvement of both companies and individuals, as managing digital competencies is crucial for most professions (Sergeva, Reznik, Amirova, 2021, p. 1-6). Four key competencies—community, entrepreneurial attitude, communication and cooperation, and ethical intelligence—need to be developed by employees. Workers are more inclined to innovate if they can influence the company's outcomes and understand how their efforts affect profitability. Technology that possesses ethical intelligence

ETHICAL, HUMAN AND MORAL VALUES AT THE INTERSECTION WITH ARTIFICIAL INTELLIGENCE

We are surrounded by AI, according to Chance (Chance 2018, p. 31). AI systems are used by people in the economy, at home, and in development projects all the time without their

knowledge. Hawking stated unequivocally that AI would automate numerous operations in the medium future and improve society's well-being and equality (Hawking 2018, p. 201–203). As the

danger lies not in its misuse but rather in its potential, super-intelligent AI might be among the greatest or worst in the world. Industry leaders in technology like Steve Jobs, Elon Musk of SpaceX and Tesla, as well as Wozniak of Apple, share Hawking's perspective. The ethical concerns and social ramifications of deploying AI are already being brought to light. They believe AI has the capacity to eradicate hunger by creating and extending its use. In an open letter on AI, they urged the profession to examine the social implications of the technology.

What it means to be human is redefined by the amazing innovations spurred by the Fourth Industrial Revolution, from biotechnology to artificial intelligence. We as individuals and as a society will need to consider issues like memory restoration, life extension, the elimination of genetic illnesses, etc. These developments will bring up one of the most important moral, ethical, and theological problems that humans can encounter. The author ponders where technology advancements are taking us in the areas of treatment, injury prevention, and parenting when discussing a better man who will be smarter, faster, and beautiful. The problems with AI that makes decisions, thinks, and predicts for us are also complicated. Many companies, including Amazon, Netflix, and others, currently use algorithms to recommend partners and local businesses, as well as which movies and books we could watch or read and which websites we should visit.

We would trust a robotic physician that treats patients with the same success rate as a human physician. Philosophical problems about how to preserve individuality, the origins of diversity, and democracy in the digital era are also raised by it (Schwab 2018, p. 98-102). In the centuries following the Industrial Revolution, labor was seen as a source of pride, identity, and significance in addition to providing the necessary income for existence (Lee, 2019, p. 240-242). When we initially present ourselves in a social setting, we frequently tell ourselves what our occupation is. Our days are filled with the service, which also gives us a nice regularity and a dependable supply of interpersonal ties. Frequent compensation not only rewards hard work but also shows that you are a valuable member of society who contributes to the collaborative enterprise. In his article, Trough (Trough 2019), a professor at the Massachusetts Institute of Technology, claims that artificial intelligence (AI) is the most existential threat we are aware of. There are two ways AI could develop. The first scenario is that, as I know it's operating very effectively, AI will gradually replace every human discipline. After all, self-taught individuals with exponentially increasing computing power will surpass doctors in diagnosis, human constructors in house construction, and economists in economic management. We will either become so reliant on technology that we will become slaves or the

machines will somehow destroy us when we are all unemployed due to erratic programming. Unbeknownst to us, the machines will make all of the decisions for us based on the optimal

outcome and optimization. Verifiable statistics in medicine provide us with the best chance of success; otherwise, we shouldn't choose to

Another option is that we take the existential threat posed by AI very seriously, fundamentally alter our strategy, and begin considering what is necessary for human survival. However, if we take this approach, we can tackle the problem of creating AI that will allow all parties involved to lead respectable lives. This entails changing the way we think from focusing exclusively on what is genuinely good to considering what is best in human existence with consideration, rather than blindly believing in efficiency. In this regard, AI machines have a serious shortcoming: they are statistically based and therefore unable to handle what is best or distinctive. Only those that are sufficiently common for statistical analysis can be addressed.

- Being ahead of the curve in this area, Europe can serve as a model for all other nations. In the Ethical Guidelines for Trusted Artificial Intelligence, Europe is explicit (European Commission, 2019). Experts in AI presented ethical standards for trusting AI on April 8, 2019. In December 2018, the first draft guidelines were published, and an open consultation resulted in over 500 comments. According to the criteria, AI systems must fulfill seven fundamental conditions in order to be deemed reliable.
- Human control and representation: AI systems ought to empower people, give them the ability to make wise decisions, and uphold their fundamental rights. It is also necessary to provide suitable control mechanisms, which can only be accomplished by human methods and verification.
- Technical robustness and security: AI systems need to be secure and robust. They must be precise, dependable, and reproducible, have a backup plan in case something goes wrong, and be safe. We can only guarantee the prevention and reduction of unintended damage in this manner.
- Data management and privacy: Apart from guaranteeing complete adherence to data protection and privacy, sufficient data management systems that consider the data's quality and integrity as well as granting authorized access to data should be in place.
- Transparency: The data system, business models, and machine intelligence must all be

transparent; traceability measures can help achieve this. Additionally, the public's interpretation of AI systems and their conclusions need to be customized. People must be aware that they are interacting with the AI system and educated about its capabilities and

constraints.

- Diversity, nondiscrimination, and justice: It is important to avoid unjust preconceptions because they may have more detrimental effects, such as marginalizing disadvantaged groups and encouraging discrimination. AI systems that support diversity ought to be usable by everyone, irrespective of disability, and should involve all pertinent stakeholders at every stage of development.
- Prosperity on both a social and environmental level: AI systems ought to help everyone, including future generations. Therefore, it is imperative to guarantee their sustainability and environmental friendliness. They must also carefully examine the environment, which includes other living things, and their social or impact on society.
- It is necessary to put structures in place to ensure accountability for AI systems and their outcomes. Verifiability is essential for this because it makes it possible to evaluate algorithms, data, and design procedures in important applications. A suitable and easily accessible treatment must be provided.

DISCUSSION OF RESEARCH ISSUES

RQ1, the research question, asks how to eliminate unemployment caused by the growth of AI in society. It seems simple and typically receives suggestions from unemployed people that something will be found and that they should provide suggestions for the task they would perform if they were offered a job. The issue is more intricate and multi-layered. Even from a global standpoint, simple occupations will become increasingly scarce as more and more businesses use AI to help, robotize, and automate tasks that would otherwise require human labor. By learning, educating, and improving during the years we spend working, we are the only way to get a job.

Work is constantly present yet evolves like a living thing. Because diverse talents lead to greater career options, we will never be afraid to work if we receive ongoing or lifelong education. Therefore, before they lose their jobs, it is crucial that we have individuals in leadership roles and in the educational system who are aware of the situation, can assist others, and can inspire and drive them to change and adapt to the new circumstances with the aid of new skills. Ironically, that ability is increasingly being undermined!

The second studyissueasks who will be responsible for the changes. To ensurethat AI isreliable, thescenariosshouldn'tdevelopinawaythatsimplyensuresgrowth,profit,orreturnatallcosts.

American experts, who are already motivated by the European Union's rules, acknowledge that the European Union is one step ahead of other nations in this regard. In order to demonstrate and assume responsibility, the European Union must have a strong and responsible policy that recognizes that humans are the most significant component of society and that it can create growth, wealth, and progress in ways that adapt AI to humans.

CONCLUSION

AI offers priceless support at work, home, and in leisure. Technology hasn't made us permanently unemployed in the past, and if we take the proper attitude, new technology won't replace jobs in the future. The development of new employment will take into account moral and ethical principles as well as the idea that AI may assist individuals in achieving their objectives. Digitalization will be the primary link between the professions. The requirement for expertise in AI-related information technologies will seldom exist in any fields. Europe is the first to take artificial intelligence seriously and to establish industry 5.0 regulations that put humans at the center of AI's use. Global economies are coming together, regardless of race, and taking advantage of AI's benefits in every field.

The issue is what occupations we will require in five, ten, or twenty years. People and AI working together, as well as economies supported by new technologies, will help create new occupations and altogether new professions. The concern is whether we have the knowledge necessary to manage these new technological processes and whether we can stay up with artificial intelligence. Both the economy and the non-economy can be improved. Nonetheless, we must recognize the necessity of lifelong learning and training for workers, especially in extinction-threatened workplaces. Digital skills will be necessary for new employment, and quick investments in education and human resource transformation will be required. The fields of science, technology, and scientific-related occupations will require a lot of focus. Raising awareness of the positive and negative effects and repercussions will be necessary to ensure that the worldwide development of AI and work is founded on humane and safe moral-ethical standards.

REFERENCES

1. Alan Turing and the beginning of AI. Britannica in clopedia, Retrieved from

<https://www.britannica.com/technology/artificial-intelligence/Alan-Turing-and-the-beginning-of-AI>

2. Breque, M., DeNul, L., & Petridis, A.
(2021). *Industry 5.0 Towards a sustainable, human-centric and resilient European industry*.

Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/468a892a-5097-11eb-b59f-01aa75ed71a1/>

3. Chace, C. (2018). The economics singularity. Three Cs, p. 31
4. Demir, K., Doven, G., & Sezen, B. (2019). *Industri 5.0 and Human-Robot Co-working*. Procedia Computer Science, Vol. 158, pp. 688-695.
5. Digitaleurope. (2020). *A stronger digital industrial Europe*. Retrieved from <https://www.digitaleurope.org/wp/wp-content/uploads/2020/02/DigitalEurope-A-Stronger-Digital-Industrial-Europe.pdf>
6. European Commission. (2019). *Ethic guidelines for trustworthy AI*. Retrieved from <https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai>
7. Fox, J. (2020). Towards a Canonical Theory of General Intelligence. *Journal of Artificial General Intelligence*, Vol. 11 No. 2, pp. 35-40
8. Hawking, S. (2019). Short answer to fundamental questions. *Učila International*, p. 201
9. Lee, K. F. (2019). The superpowers of artificial intelligence. Ljubljana: National University Library, p. 204-242.
10. Minevich, M. (2020). Here's How Slovenia is shaping the new Human Centric Society and Pioneering the world in AI. Retrieved from <https://www.forbes.com/sites/markminevich/2020/04/13/heres-how-slovenia-is-shaping-the-new-human-centric-society-and-pioneering-the-world-in-ai/?sh=53c16d284860>
11. Raiz Mir, U., Mahnaz Hassa, S., & Majed Qadari, M. (2014). Understanding Globalization and its Future: An Analysis. *Pakistan Journal of Social Science*. Retrieved from <http://icwu.edu.pk/ocd/cfiles/International%20Relations/Min/IR-202-AC/PJSS-Vol34-No2-1811.pdf>
12. Schwab, K. (2017). *The Fourth Industrial Revolution*. Penguin Random House UK, p. 98-102.
13. Sirvastava, S. (2019). Top 10 Countries Leading the Artificial Intelligence. Retrieved from <https://www.analyticsinsight.net/top-10-countries-leading-the-artificial-intelligence-race/>
14. Communication from the Commission to the European Parliament, the European Council, the European Social Committee and the Committee of the Regions. (2018). *Artificial intelligence for Europe*. Retrieved from <https://eur-lex.europa.eu/legal-content/SL/TXT/PDF/?uri=CELEX:52018DC0237&from=CS>
15. Trout, B. (2019). Retrieved from <https://shass.mit.edu/news/news-2019-ethics-and-ai-series-safeguarding-humanity-age-ai-bernhardt-trout>
16. Zorc, S., Lozej, M., & Blaznik, P. (2020). National Programme for the Promotion and Development and Use of Artificial Intelligence in the Republic of Slovenia by 2025. Retrieved from https://www.gov.si/assets/ministrstva/MJU/DID/NpAI_SI_2020-08-20_draft.pdf