

## PARADIGM SHIFT WITH THE HELP OF ARTIFICIAL INTELLIGENCE

**Vasile RIȚIU, Ph.D.**

*„Bogdan Vodă” University of Cluj-Napoca*  
*vasiritiu@yahoo.com*

### ABSTRACT

*Any change can be beneficial or not in the economic evolution of the world, and why not, in some national economies. Through the continuous development of scientific research, a new form of presentation and utilisation of digital intelligence, known as Artificial Intelligence (AI), has been discovered, from which useful capabilities are expected to supplement human activity in a complex manner. For now, theoretically, this transformation seems to present numerous applications in a variety of technical fields and beyond.*

**KEYWORDS:** *macro-digitalisation, artificial, advanced robotisation, intelligence without human assistance*

**JEL Classification:** *A 23, B 22, C 82, D 87*

### 1. EVOLUTION AND PARADIGM SHIFT

Artificial intelligence was founded as an academic discipline in 1956, with hopes based on dissecting data into specific subfields, such as robotics or machine learning, and even neural networks. Specifically, Kaplan and Haenlein define AI as "the ability of a system to correctly interpret external data, learn from such data, and use what it has learned to achieve specific goals and tasks through flexible adaptation."

For example, optical character recognition is often excluded from the field of AI after becoming a routine technology. Modern machine capabilities generally classified as AI include understanding human speech, competing at the highest level in strategy games (such as Chess and Go), autonomous vehicles, intelligent routing in content distribution networks, and military simulations.

In the 21st century, AI techniques have experienced a renaissance following concurrent advances in computing power, large data accumulations, and theoretical understanding; AI techniques have become an essential part of the technology industry, helping to solve many difficult problems in computer science, software engineering, and operational research. Based on the development of global scientific research, human imagination has been advanced for the purpose of determining and using it in a complex form that demonstrates the ease of work in a multitude of fields.

Thus, by creating complex databases using cloud storage of these immense databases, technical hypotheses could potentially redefine the universal paradigm about:

- Relaunching productivity;
- Higher quality and superior healthcare;
- Precision manufacturing processes;
- Clean and safe transportation;
- Cheap and sustainable energy sources;
- Efficient control of road traffic and institutions;

- Efficient control of forestry deviations;
- Efficiency in selling and controlling products – healthy markets.

The paradigm shift with the help of the multitude of activities through "Artificial Intelligence" can eliminate many technological and human shortcomings. Artificial intelligence can and must be used for the benefit of society, not to its detriment. We will be able to use ChatGPT to create our own programs with the help of Artificial Intelligence without having specialist knowledge in programming. Human creativity will be liberalised in fields such as fashion, hospitality, literature, etc., which at first glance can create a sense of novelty and originality and expand the horizons of creativity, even in artistic composition. The problem is where human imagination will stop, even if fantasies will play a crucial role.

A field that has relaunched work productivity, "Chat," and its efficiency in environmental design is the abrupt transition from the costly technology of lighting using rare metal powders: tungsten and molybdenum, to a much simplified technology of "LEDs," which has increased not only the usage times from 100 to over 25,000 hours of operation but also used much cheaper and easier-to-achieve materials. It also reduced lighting consumption by about 10 times, resulting in increased mass production. Through policies aimed at reducing material and human consumption, automation and the use of artificial intelligence have increased productivity significantly.

Artificial intelligence means more than massive robotisation, which can bring about a total change in the business world's thinking. The efficiency of economic processes can lead to a massive reduction in technological and human errors. Previous databases are not sufficient; it is necessary to create hubs that centralise vast amounts of data to be transposed by artificial intelligence into complex apparatuses that simplify and correct human deficiencies.

New forms of artificial intelligence have emerged: Google Assistant, which seems to obtain results close to the requirements through numerous queries. Another example would be ChatGPT, which also operates on verbal queries, helping to some extent obtain necessary data. A preliminary analysis suggests that the adoption of Artificial Intelligence should be based on a sufficient database that defines and assists in providing information for a multitude of fields of use. Thus, a verdict can be given on the replacement of humans in certain key areas, whether commercial or military.

By using artificial intelligence for human benefit, not destructively, we can achieve the desired evolution even if we resort to complex industrial, military, etc., mechanisms. Starting from a hypothesis with practical applicability, we will need to stabilise at a reliable operating system without producing a total paradigm shift for the moment. If we find that we are not sufficiently prepared to radically move to viable technical solutions, financial investments should be capable of substantially increasing human work productivity. Financial capital will evolve into Intelligent Capital, towards maximal profit, which will negatively influence professional life. Some say we will witness "ultramodern slavery," but hopefully, it will not lead to technological revolts, only human ones that will need to adapt to the new conditions of a maximally computerised life.

As presented in this paradigm, AI has a strong impact on the human social system, namely in the "lack of responsibility," which should be supplemented by IT mechanisms as well as the achievement of maximum and quality robotisation. Designing sufficiently voluminous hardware will demonstrate how limited the researcher implementing this complex technology is.

Recent studies, such as the one conducted by Nvidia and MIT in 2023, indicate that artificial intelligence will bring the greatest productivity growth in history. With an estimated 50% increase in productivity (compared to only 10% growth brought by the advent of the internet), we are at a crucial moment, with significant impact both professionally and personally. Radical ideas and disruptive innovation require human creativity and cannot be generated exclusively by Artificial Intelligence.

The time is coming for massive use of creativity and innovation workshops that will clarify researchers about the real needs of human society and the veracity of using "Artificial Intelligence." According to the Chief Marketing Officer (CMO) study conducted by Duke University with Deloitte's support, artificial intelligence has become a key element in the marketing activities of organisations, marking a significant change in the current paradigm. Through this technology, besides increased sales productivity, there is also an aim to increase customer satisfaction and lower marketing costs.

The continuous evolution of technology and marketing approaches will play a crucial role in enhancing and consolidating performance in an ever-changing digital world. The implantation of chips in the human brain will avoid the need to amass data necessary for creating Artificial Intelligence and implicitly create the critical mass of data needed for designing technological tools quickly.

A warning signal inevitably leads to evolution and easier life, but perhaps not to complete satisfaction. It will create a huge leap, like exploiting the Universe, regarding the transition from human intelligence to that of machines and successfully achieving goals.

Based on high-performance software, we will be able to create:

- Virtual assistants, image analysis software, search engines, voice and facial recognition systems;
- Robots, autonomous cars, drones, etc.

## **2. FINAL SYNTHETIC CONCLUSIONS**

Correctly interpreting external data through continuous learning of specific tasks should lead to maximising the chance of successfully achieving proposed goals. As presented, the development of operational research and complex software can lead to considerable progress in our society's activities. Gradually moving from IT philosophy to real needs will generate a turbulent movement that will stabilise through human awareness of the benefits and capabilities of artificial intelligence in easing life on Earth, especially the fear of massive unemployment.

On June 14, 2023, the European Parliament adopted its negotiating position on the AI legislative act. The Parliament's priority is to ensure that AI systems used in the EU are safe, transparent, traceable, non-discriminatory, and environmentally friendly. The Parliament also aims to establish a uniform, technology-neutral definition of AI that can be applied to future AI systems. The AI law sets different rules for different levels of risk associated with AI.

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