ARTIFICIAL INTELLIGENCE – OPPORTUNITIES, RESPONSIBILITY, CONCERNS

Valeriu IOAN-FRANC¹, Andrei-Marius DIAMESCU²

Abstract: "Digitisation" has currently become almost an imperative requirement of development, believed to be able to bridge on its own the world's divide between developed and developing societies, without taking into account factors such as access to education or to material resources. Before it becomes a reality, we are faced with a chilling challenge.

The stage of the digital transformation of Romania and not only, analysed at the level of the states with the most developed online services in the European Union, shows that where the online channel is the first involved for up to 43% of the public services.

The phrase "digital education", like the definitions of economy and society, has the potential to generate semantic confusion by association with "online education", where "digital" is reduced to explaining the means by which the education process takes place. For this reason, we propose the formulation "education in the digital area" and, possibly, "computerized/digitized society/economy"!

Keywords: Artificial intelligence; digitisation; education in the digital area; computerized/digitized society/economy.

JEL Classification: A2, M2, O0, O3, P0.

¹ Prof., Ph.D., Member of the Romanian Academy, Deputy Director General of the "Costin C. Kiriţescu" National Institute for Economic Research of the Romanian Academy, Bucharest, 13 septembrie Street, no.13, phone: +4023182438, e-mail: cide90@gmail.com.

² Prof., Ph.D., Senior researcher, "Costin C. Kiriţescu" National Institute for Economic Research of the Romanian Academy, Bucharest, 13 septembrie Street, no.13, e-mail: dandreimarius@yahoo.com.

Coming initially into existence as a necessary operation for the adjustment to new technologies, i.e., the conversion of information/signal from analogue to digital format, *digitisation* seem to have become nowadays a sort of "*panacea*" for all the problems that society is facing and, maybe even more, "*the engine*" without which development can no longer be conceived.

What, in the beginning, seemed, or maybe should be a new technological support in human life, has become, in a very short time, a real challenge on multiple levels: technological, financial, assimilation of new knowledge, belonging to a group, security and the list is open¹ (Kondratenko, 2023).

"Digitisation" has currently become almost an imperative requirement of development, believed to be able to bridge on its own the world's divide between developed and developing societies, without taking into account factors such as access to education or to material resources. Before it becomes a reality, we are faced with a chilling challenge.

The statistics referring to the "*digitisation*" of Romania, for instance, are relevant in relation to the stage reached in the other EU countries, but for designing future action they become decisive when analysed from the perspective of the Guide for Digital Integration of developing countries, elaborated by Information Technologies Group/Center for International Development of Harvard University, with the support of IBM.²

The stage of the digital transformation of Romania and not only, analysed at the level of the states with the most developed online services in the European Union, shows that where the online channel is the first involved for up to 43% of the public services, 48% of the citizens who need to use them are unable to do so, the main

¹ Kondratenko, Y. – Increasing Role of Artificial Intelligence in Human Activity: Development, Implementation, and Perspectives, RACEF, Barcelona, 2023.

² *** Digital Integration: A Guide for Developing Countries, Information Technologies Group/Center for International Development at Harvard University, at https://cyber.harvard.edu/readinessguide

obstacle being lack of skills¹. Romania ranks 15th in connectivity out of 27 EU member countries, although it doesn't have yet a digital skills strategy.

The phrase "digital education", like the definitions of economy and society, has the potential to generate semantic confusion by association with "online education", where "digital" is reduced to explaining the means by which the education process takes place. For this reason, we propose the formulation "education in the digital area" and, possibly, "computerized/digitized society/economy"!

Moving on to the issue of the *Internet, Artificial Intelligence, Metaverse,* we are approaching the *difficulties* involved in the analysis and the "deciphering" of a process in ongoing development, characterized by a rhythm which, often, exceeds its real possibilities of social integration. The current IT&C development rate is considerably higher than the rate at which the populations, at the mass level, not only the specialists, can assimilate/integrate the new technologies.

This reality leads us, in the tradition of Karl Jaspers, according to whom "in philosophy, the questions are more important than the answers and each answer becomes a new question"², to find ourselves facing the following – vital – interrogation: are we obliged to adapt technologies to the real needs of people or to adapt/prepare people to the requirements of technologies?

We don't intend to find a "definitive" answer to this question, being aware that no matter what our option is there will be enough people and enough arguments to contradict us. Yet, we consider ourselves entitled, as researchers, to hold it responsible for most of the risks that the digital transformation, undoubtedly absolutely necessary, of society poses.

¹ Ion, A. – Avantajele și pericolele digitalizării. Toți angajații vor trebui să se adapteze la noua evoluție industrială, November, 13, 2019, at https://www.capital.ro/ avantajele-si-pericolele-digitalizarii-toti-angajatii-vor-trebui-sa-se-adapteze-la-noua-evolutie-industriala.html

² Jaspers, K. – *Introducere în filosofie*, apud Paraschiv M., *Ce este filosofia?* at https://www.academia.edu/20126849/Ce_este_filosofia

One needs to keep in mind that, at this moment, of the still uncertain coming out of the Covid-19 pandemic, the society urged for the unfortunate social distancing (instead of sanitary or preventive distancing, Ioan-Franc; Diamescu, 2021, 2022)¹ has dramatically divided. A divide that was blamed on the need for healthcare prophylaxis and lead to acceleration of remote working, online ordering and electronic payments. Now society is splitting into less than 50% – the ones who own the technological means and the will (intellectual capacity) to use them through the support of digital education, and more than 51% of the ones who can not do that due to lacking the aforementioned. It is, actually, *a brutal and uncontrolled fragmentation of society through the generation gap*.

The first of these risks is the one of accentuated polarisation of society, of splitting populations into "specialists/initiated" and "digital illiterates". And even more serious is the fact that the term "functional illiterate" coins a strongly pejorative, contemptuous meaning, as if the level of education, the ability to think would be secondary in relation to the skills/knowledge of using the IT&C technology.

This type of "segregation" has implications that go far beyond "selfesteem", for example. In the absence of designing efficient administrative measures, the existing gaps in the field of digital training lead inevitably to restricting the access of an important segment of the population to many public services, be they administrative, banking, transport, health and even education. All these aspects are directly reflected in a decrease in the quality of life of the citizens, while the stated purpose of IT &C technologies, intelligence and the digital economy is precisely the enhancing of it!

¹ I wrote about this at the time and also spoke of the podium of the RACEF School of Humanist Economics, *La crise d'après les crises. La crise de l'humanité?*, în: La nueva economía después del SARS-COV-2. Realidades y revolución tecnológica, Real Academia de Ciencias Económicas y Financieras, Barcelona 2022, pp. 121-139, and *Pandemia de coronavirus – Lecții "deocamdată" învățate?*, in: Pandemia. Constrângeri și oportunități economice, Romanian Academy Publishing House, Bucharest, pp. 557-572.

Another major risk, in our opinion, is the concentration of the data and information circulated in the AI systems in the hands of a few companies/institutions able not only to escape state control, but also to exercise control over some democratic institutions.

There has been a lot of talk in recent years about the erosion of democracy following the "alteration" of political decision-making through the intervention of big capital, visible today both in the sponsorship of major political campaigns as well as in the active presence of the representatives of great corporations in political decision-making positions.

We can anticipate a second wave of attack against democracy, initiated and carried out by the big information owners, none other but the stakeholders of the important IT corporations – not by accident among the richest people on the planet today.

The extraordinary power these stakeholders acquired, which cumulates financial strength with that of the information they own forces us to reflect today, more than ever, on the following question: in the current context, is democracy, in its ancient Greek and centuries-old form able to stand by its principles? Here is a difficult issue that might become, we believe, the topic of a separate meeting!

Until the appropriate answers to this question are found, *the aspects referring to the right to private life, intimacy etc. are still poorly solved.* It is obvious that efforts have are being made and significant steps have been taken in the field of personal data protection. What it should be admitted, however, is the fact that their efficiency is mostly relevant for the relations between users and less to not at all for the relations between users of large companies in the information field.

The benefits of "metaverse" for economy, for society in general are intensely promoted, the statistics showing for the next 7-8 years an almost exponential growth of its contribution to profit. ¹ We go on and on speaking about profit!

¹ Buchholz, K. (2023) – https://www.statista.com/chart/29329/metaverse-revenue/

One can not say the same thing about the "*advantages*" that it brings to the data and information market: collection of nonverbal information about users, such as: mimicry, gestures, gaze focus and body reaction including aspects referring to the somatization of intense feelings of the individuals.

If we consider that the latest studies on the ability of identifying a user based on this kind of data show that some algorithms need 5 minutes of training to be able to recognize 95% of the individuals about whom they already have nonverbal data¹, we need to become aware that, in metaverse, we won't be able to "get lost in the crowd", a situation in which notions related to intimacy or private life become significantly meaningless!

The pages of the magazines, offline or online, the reports of news agencies, governmental or private, highlight the most alarming or alarmist concerns. Here are some of these concerns, up to date (March 10, 2023). Here are some headlines:

- AI Chat GPT: "red code at Google and the dramatic change of IT labour market."²
- We won't resist in the face of this phenomenon (AI)! The way our society is built, it won't resist the penetration of artificial intelligence.⁶
- Artificial intelligence does not understand humans: the detail that makes us complicated, if not impossible ChatGPT is the reason Artificial Intelligence is tormented and torments us!⁴
- The new chatbot with Artificial Intelligence from Microsoft claims it is able to create a deadly virus and steal the launching codes of nuclear missiles!⁴

¹ Idem, p. 17

² Dițulescu, A. (2023, 06.02) – https://cursdeguvernare.ro/ai-chatgpt-cod-rosula-google-si-schimbarea-din-temelii-a-pietei-muncii-in-it.html

³ Mironov, Al. (2023, 11.02) – *Nu vom rezista în fața emancipării inteligenței artificiale*, https://www.fanatik.ro/intr-un-viitor-deloc-sf-robotii-ne-vor-inlocui-la-serviciupredictiile-lui-alexandru-mironov-nu-vom-rezista-in-fata-emanciparii-inteligentei-artificiale-20305403

⁴ Tilimpea, A. (2023) – https://playtech.ro/2023/inteligenta-artificiala-nuintelege-oamenii-detaliul-care-ne-face-complicati-daca-nu-imposibili/

- The state should impose moral considerations in AI development. There is the risk that humans lose control.²
- Google loses 100 billion dollars over its AI bot.³
- Generative AI should accelerate slowly.⁴
- "The father of the Internet" against investing in Artificial Intelligence.[∞]
- "Vatican and the moral enigmas of Artificial Intelligence. Ethics needs to be considered not only as a secondary concern or even a non-consideration. Ethics must play an important role, which is why there is a need for an AI code of conduct that enterprises and even the media should be forced to accept, as well as make these compliance terms part of the terms and conditions of using AI devices."
- "The ten jobs that are likely to be replaced by AI⁷: tech jobs; jobs in the media; jobs in the legal industry, market research analysts; teachers; jobs in finances; brokers; graphic design specialists; accountants; custom relations representatives."
- AI is "one of the greatest risks" for civilisation (Elon Musk, cofounder of the company that created ChatGPT).⁸

What AI can or can not do? "We don't know what AI will mean in a few years, but it is now emerging as a partner... For now, AI offers us

- ² Anton, C. (2023) https://stirileprotv.ro/stiri/ilikeit/rector-umfst-statultrebuie-sa-impuna-consideratii-morale-in-dezvoltarea-ia-exista-riscul-ca-omulsa-piarda-controlul.html
- ³ DCBusiness Team (2023) https://www.dcbusiness.ro/google-pierde-100miliarde-din-cauza-robotului-sau-de-inteligenta-artificiala_652513.html
- ⁴ https://financiarul.ro/companii/inteligenta-artificiala-generativa-ar-trebui-sa-se-grabeasca-incet/
- ⁵ Frățilă, B. (2023, 18.02) https://www.kanald.ro/parintele-internetuluicontra-investirii-in-inteligenta-artificiala-20293492
- ⁶ https://financiarul.ro/tehnologie/vaticanul-si-enigmele-morale-ale-inteligentei-artificiale/
- ⁷ Popescu, O., (2023, 12.02) https://ilike-it.ro/online/cele-zece-meserii-pecare-inteligenta-artificiala-are-cele-mai-mari-sanse-sa-le-inlocuiasca.html
- ⁸ Diaconu, R. (2023, 18.02) https://cursdeguvernare.ro/elon-musk-cofondator-al-chatgpt-ia-este-unul-dintre-cele-mai-mari-riscuri-pentru-civilizatie.html

Review of General Management, Volume 37, Issue 1, Year 2023

¹ Nicolae, A. (2023) – https://www.activenews.ro/stiri/Noul-chatbot-cuinteligenta-artificiala-de-la-Microsoft-sustine-ca-este-capabil-sa-creeze-unvirus-mortal-si-sa-fure-codurile-de-lansare-a-rachetelor-nucleare-179923

information, sometimes gives us suggestions and ideas. What doesn't AI offer? Emotions and story. Emotion is a human feature and no artificial intelligence soft can replicate it authentically. Artificial intelligence is a rational one, not an emotional one. People are, still (emphasis added) in the stage of knowing and discovering their own emotions and, especially, of how to be aware of them, how to deal with them and manage them in order to have a better individual but also collective life."¹

Responsibilities, therefore, in shaping the programmes and the projects of the field in the near or more distant future. But also equal concerns. From deciphering the stages – machine learning, deep learning, neural network, cognitive computing and computational vision² – we should consider the development of knowledge, as without a real and well-led education nothing would run smoothly. But we think it is the place and the role to bring-up the so-called "algoretics" (the ethics of using algorithms) and where better to do if not at the RACEF School of Humanistic Economics?! Not long ago actually (March 23, 2023) RACEF concluded at a high-level academic meeting³ that technology should remain at the service of humanity, calling at the same time for a new model of involvement and research in the field. At the same time⁴, RACEF is campaigning for *the establishment of an ethical code for the future will be used only and solely for the good of human society.*

¹ Costin, A., (2023, 03.02) – https://republica.ro/inteligenta-artificiala-e-din-cein-ce-mai-folosita-de-companii-in-interactiunea-cu-clientii-ce-poate_2

² Morcovescu, M. (2022, 28.12) – *Ce este inteligența artificială*, https://www. libertatea.ro/stiri/ce-este-inteligenta-artificiala-4393960

³ See RACEF (2023, 17.03) – *The Royal Academy highlights the value of cybersecurity as a strategy and opportunity*, https://racef-es.translate.goog/es/node/5735?_ x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en

⁴ See RACEF (2023, 15.03) – *The National Act calls for the establishment of ethical codes in the development and use of AI*, https://racef-es.translate.goog/es/node/ 5734?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en

REFERENCES

- Anton, C. (2023) https://stirileprotv.ro/stiri/ilikeit/rector-umfststatul-trebuie-sa-impuna-consideratii-morale-in-dezvoltarea-iaexista-riscul-ca-omul-sa-piarda-controlul.html
- Buchholz, K. (2023) https://www.statista.com/chart/29329/ metaverse-revenue/
- Costin, A., (2023, 03.02) https://republica.ro/inteligenta-artificiala-edin-ce-in-ce-mai-folosita-de-companii-in-interactiunea-cu-clientiice-poate_2
- Diaconu, R. (2023, 18.02) https://cursdeguvernare.ro/elon-muskcofondator-al-chatgpt-ia-este-unul-dintre-cele-mai-mari-riscuripentru-civilizatie.html
- Dițulescu, A. (2023) https://cursdeguvernare.ro/ai-chatgpt-cod-rosula-google-si-schimbarea-din-temelii-a-pietei-muncii-in-it.html
- Frățilă, B. (2023, 18.02) https://www.kanald.ro/parintele-internetuluicontra-investirii-in-inteligenta-artificiala-20293492
- Ioan-Franc, V.; Diamescu, A.-M. (2022) La crise d'après les crises. La crise de l'humanité?, in: La nueva economía después del SARS-COV-2.
 Realidades y revolución tecnológica, Real Academia de Ciencias Económicas y Financieras, Barcelona 2022, pp. 121-139
- Ioan-Franc, V.; Diamescu, A.-M. (2022) Pandemia de coronavirus Lecții "deocamdată" învățate?, in: Pandemia. Constrângeri și oportunități economice, Romanian Academy Publishing House, Bucharest, pp. 557-572.
- Ion, A. (2019, 13.09) Avantajele și pericolele digitalizării. Toți angajații vor trebui să se adapteze la noua evoluție industrială, https://www. capital.ro/avantajele-si-pericolele-digitalizarii-toti-angajatii-vortrebui-sa-se-adapteze-la-noua-evolutie-industriala.html
- Jaspers, K. Introducere în filosofie, apud Paraschiv M., Ce este filosofia? at https://www.academia.edu/20126849/Ce_este_filosofia

Review of General Management, Volume 37, Issue 1, Year 2023

- Kondratenko, Y. (2023) Increasing Role of Artificial Intelligence in Human Activity: Development, Implementation, and Perspectives, RACEF, Barcelona, 2023.
- Mironov, Al. (2023, 11.02) Nu vom rezista în fața emancipării inteligenței artificiale, https://www.fanatik.ro/intr-un-viitor-deloc-sf-robotiine-vor-inlocui-la-serviciu-predictiile-lui-alexandru-mironov-nuvom-rezista-in-fata-emanciparii-inteligentei-artificiale-20305403
- Morcovescu, M. (2022, 28.12) *Ce este inteligența artificială*, https://www. libertatea.ro/stiri/ce-este-inteligenta-artificiala-4393960
- Nicolae, A. (2023) https://www.activenews.ro/stiri/Noul-chatbot-cuinteligenta-artificiala-de-la-Microsoft-sustine-ca-este-capabil-sacreeze-un-virus-mortal-si-sa-fure-codurile-de-lansare-a-rachetelornucleare-179923
- Popescu, O., (2023, 12.02) https://ilike-it.ro/online/cele-zece-meseriipe-care-inteligenta-artificiala-are-cele-mai-mari-sanse-sa-leinlocuiasca.html
- Tilimpea, A. (2023) https://playtech.ro/2023/inteligenta-artificiala-nuintelege-oamenii-detaliul-care-ne-face-complicati-daca-nuimposibili/
- Integrarea Digitală: un ghid pentru țările în curs de dezvoltare, Information Technologies Group/Center for International Development at Harvard University, at https://cyber.harvard.edu/ readinessguide
- DCBusiness Team (2023) https://www.dcbusiness.ro/google-pierde-100-miliarde-din-cauza-robotului-sau-de-inteligentaartificiala_652513.html
- https://financiarul.ro/companii/inteligenta-artificiala-generativa-artrebui-sa-se-grabeasca-incet/
- https://financiarul.ro/tehnologie/vaticanul-si-enigmele-morale-aleinteligentei-artificiale/

- RACEF (2023, 17.03) The Royal Academy highlights the value of cybersecurity as a strategy and opportunity, https://racef-es.translate.goog/ es/node/5735?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en
- RACEF (2023, 15.03) The National Act calls for the establishment of ethical codes in the development and use of AI, https://racef-es.translate.goog/es/node/5734?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en