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IS GENERATIVE AI POSSIBLE CAUSE OF THE SWAN SONG OF THE RATIONAL CIVILISATION?

Abstract. Despite the many successes of generative AI, a number of fundamental questions have begun to arise around this technology. There is undoubtedly an interesting situation from a philosophical point of view. It can be carefully assumed that contemporary digital information processing technologies have arisen inside a circle of civilisation, one of the foundations of which is the classical account of truth. This account, even if seen as ideal and absolute, nevertheless seems to be a driving force in the field of science. Is it possible that generative AI will result in the replacement of the pursuit of truth by a mere uncritical adherence to the results provided by AI systems, as well as the inhibition of lively creativity both scientific and artistic?

Keywords: AI, philosophy, civilisation, question, technology, science, understanding.

Introduction

It is relatively self-evident to say that there have been staggering technological advances in recent decades. In fact, not a day goes by without the media reporting the next 'revolution', an eternal breakthrough in any of the myriad technological branches. An additional impetus that seems to raise both the pace of technological development and the temperature of the various reports is undoubtedly the rapid development and expansion of digital technology applications that has been taking place since the middle of the 20th century. In addition to the undoubted and sometimes impressive successes, I put forward the thesis that this phenomenon is also philosophically significant. It is also undoubtedly the case that the aforementioned dynamics of the development of digital technologies, especially AI systems, and the transformations associated with them are having

a very profound impact on the way the average person thinks and functions in highly technicised countries. This influence can – it seems – be compared to the existence of another phenomenon – science, whereby it seems that as far as the power of the influence of technology is concerned, it seems to be growing more and more. For example: if the average Polish citizen is not familiar with the current theories of elementary particles (unless he is a theoretical physicist), he can, at most, feel discomfort at the lack of exotic knowledge. In contrast, a complete lack of skills with new technologies sooner rather than later ends in exclusion from society (e.g. due to an inability to use financial institutions, means of communication, etc.). The pervasiveness of digital technologies not only shapes thinking, e.g. by recommending such and not other content, which leads to different states and actions. (on this topic in more detail: (Kazienko & Cambria, 2024) but also the cognitive abilities themselves even in children (Vedechkina & Borgonovi, 2021).

Without diminishing the importance of the interactions and links between the two areas of human activity that are science and technology, this paper adopts the distinction proposed by Herbert Simon (Simon, 1969). According to him, a scientist is concerned with how things are (how things are), while an engineer is interested in how things ought to be (how things ought to be)[1]. Using this distinction, some unusual (as it seems), philosophically interesting aspects will be presented, especially related to the observed development of AI systems. It will be explained why it can be hypothesised that a 'hard' philosophical analysis, assuming a correspondence theory of truth, is indispensable in the discussion of these systems, without focusing only on ethical aspects, although the role of the latter in the context under discussion cannot be overestimated. In this context, the role of the pursuit of truth as a certain feature of civilisation, the fruit of which are, among other things, AI systems, will be highlighted. The whole will be closed with conclusions based on the presentation and the identification of some, potentially negative, effects of the uncritical fascination and applications of these systems. In this context, it seems worth highlighting the existence of a very important overall programme related to the interaction between philosophy and technology, which is "Philosophy in Technology"[2]. The present study makes extensive use of some of the tools developed as part of this programme, such as locating philosophical issues in the foundations of technological issues, a kind of meta-philosophical reflection, and sensitivity to the generation of new philosophical issues by contemporary technologies, or a kind of new light that the development of contemporary technologies can shed on classical issues (cf. (Polak, 2023)).

Can AI as a technology be interesting from a philosophical point of view?

The answer to this question seems trivially obvious and affirmative. This is evidenced, for example, by the many standard issues addressed within the philosophy of AI (understood as a common field between philosophy of mind and philosophy of computing), such as cognitive issues, the problematics of human intelligence and machine 'intelligence', the problem of computability, ethical issues related to information processing technologies, and their impact and relationship with other areas of human intellectual activity and beyond (cf. (Boden, 1990), (Brey & Søraker, 2009), (Floridi, 2023), (Müller, 2016), (Müller, 2022), (Müller, n.d.)). Philosophical analyses show, however, that obvious answers do not have to be such, so it seems justified to present my own position in this regard. It is necessary at this point to clarify what is taken into account when it comes to artificial intelligence systems (on this subject briefly and taking into account historical developments: (Wooldridge, 2021)). In this paper, by artificial intelligence systems, narrowly, is meant mainly generative AI systems (and in parallel Large Language Models, cf. (Amaratunga, 2023), (Ozdemir, 2024)). Undoubtedly, a certain difficulty in the presentation of the issue is the fact that the field of consideration (AI) is characterised by high dynamics of change and a huge number of publications (scientific and otherwise), which makes it very difficult (or outright impossible) to follow all the interesting threads.

At this point, it seems adequate to present a few points that make up the starting position, adopted within the framework of this thesis, with regard to advanced digital information processing technologies (DIPTs), including AI:

P1. From a technical point of view, LLMs – it seems – are not particularly interesting, their method of operation – in terms of ideas – being relatively simple (akin to shuffling a huge space of possibilities). Nevertheless, the achievements of these models in some applications show that sometimes the combination of simple ideas from several fields, which are the product of the human mind[3] (linear algebra, tensor calculus, mathematical statistics, etc.), yields unexpectedly interesting results and provides a philosophically interesting example of the power of the human mind;

P2. It should be noted that the development of DIPT has necessitated a re-examination of what information itself is. This issue is undoubtedly philosophically momentous, and the research of many thinkers

in this area has on the one hand yielded very interesting results, but on the other hand is far from being universally agreed upon or definitive (cf. (Turek, 1978), (Floridi, 2011), (Burgin, 2017), (Krzanowski, 2022));

P3. It should also be emphasised that – with reference to P2 – the near ubiquity of DIPT leads to deep issues related to the possibility of creating such philosophical tools that, in terms of ontology, would allow for the inclusion and description of issues such as the ontological status of virtual objects, including AI systems themselves (cf. (Bondecka-Krzykowska et al., 2019), (Skowron, 2020), (Krzanowski & Polak, 2022)). The choice of the underlying assumptions of such a description and the possibility of producing such a description (together with basic epistemological issues) have a direct impact especially on ethical determinations (see P7) – as issues such as the definition of a person, the existence or non-existence of a given object, etc. come into play;

P4. The coupling of LLM with data and learning opportunities within a discipline undoubtedly produces philosophically interesting results. These results are also interesting in terms of their applicability to specific scientific disciplines, not only technical ones[4];

P5. The P4 context seems to be responsible for a renewed focus on fundamental epistemological issues (cf. (Wheeler & Pereira, 2004)). Attention should also be paid to the almost natural inspirations flowing into philosophy of mind, and the issues that arise at the interface between philosophy of mind and epistemology. In particular, in relation to systems, LLM with redoubled force appears a variant of the 'Chinese peace' problem ((Searle, 1980)). It can be attempted to characterise it as follows: does the fact of being able to determine the highest probability of the occurrence of a given linguistic construction (phrase) in a given context imply knowledge of the content, represented by the construction in question?

P6. With reference to P3, P4 and P5, it is appropriate to point out that in research and discussions about AI, terms such as 'intelligence', 'thinking', 'consciousness', 'understanding', etc. are very often used. The fundamental difficulty is that it is usually not clear what the one using the term means. Hence, in a way, the natural role of philosophy could consist in a certain clarification of concepts so that there is no unjustified appropriation of them. This would constitute a certain analogy to the process of purification of concepts proposed by Heller in relation to the

science-theology relationship (cf. (Heller, 1996)). This point seems relevant as scientific and technical publications have a strong influence on colloquial thinking;

P7. AI systems seem to be the first technology whose results dynamically touch on so many areas of both human intellectual activity and existential problems, concerning the meaning of life in the context of the possibility of being deprived of work, interpersonal relations, or experiences of loss, or even an attempt to defend human dignity in the context of rapidly emerging, new challenges, related to the development of contemporary digital technologies (see Jill Fellows paper in this issue, also c.f. (Hollanek & Nowaczyk-Basińska, 2024), (Knell & Rüther, 2024), (Hanna & Kazim, 2021)). Potentially, therefore, they can also have a huge impact on the way we think and act, so ethical issues are undoubtedly a research area of the highest priority[5]. The situation is also philosophically interesting from a slightly different point of view – appropriate tools are also being sought for ethical systems that would seem unpopular in recent times, e.g. virtue ethics (cf. (Farina et al., 2022), (Hagendorff, 2022)).

At this point, it also seems important to observe that, ultimately, the distinction cited by Simon and Skolimowski earlier – however very useful – is only acceptable in a situation in which it is assumed that it is possible for science to adequately (at least approximately) describe cognitively accessible reality. Thus, it can be said that the tool functions well when one accepts the correspondence theory of truth. Although this theory has its difficulties (cf. (David, 2022)), it has to be said in the context of the issue at hand:

R1. Appeal to it is one of the main drivers of any scientific endeavour. Ultimately, a certain ideal is to arrive at an understanding and description of how things actually are, and therefore at the truth. As Grobler rightly points out, limiting oneself only to the pragmatic goal of efficiency in predicting experimental results may sooner or later lead to cognitive stagnation (Grobler, 1993). It must also be recognised that sometimes disinterested curiosity, can lead – in a long process – to unexpected, momentous results (as exemplified by, for example, the history of non-Euclidean geometries, cf. (Rosenfeld, 1988));

R2. It belongs to the main pillars of a civilisation of which AI systems are one of the most recent achievements – a civilisation in which rationality[6] has a particularly privileged place, and of which science is a particular expression.

Both observations suggest that – especially with regard to the notion of truth in use and the notion of reliable knowledge based on it – a kind of Platonic element is still discernible within the civilisation whose fruits include AI systems. Referring to Whitehead, one would have to say that this is not surprising[7]. Usually, when a discussion of the Platonic heritage arises, a discussion of the classical triad comes into play: Goodness, Beauty, Truth (cf. e.g. (Knell & Rüther, 2024)). The present work has a much more modest aim: to analyse the functioning of the correspondence theory of truth in the foundations of the intellectual endeavours of a civilisation that has seen the development of advanced information processing technologies[8]. In addition, in view of the above observations, one may venture the thesis that the emergence of sufficiently developed digital systems has provided a new impetus for philosophical research, also in terms of drawing on the already rich historical heritage of philosophy.

One further caveat is important at this point. Although the typical issues raised in the context of Generative AI, such as bias, hallucinations, the problem of training data, the process of training and nurturing the system, are undoubtedly important issues, they will be almost ignored within the framework of this paper. The aim of the paper is to highlight some fundamental issues specific to the functioning of humans and the civilisation they build, rather than AI systems. It should also be emphasised, however, that from the above considerations it appears that the systems appear to be (most likely) the first fruit of man's technical thought, with so much philosophical involvement, which is interesting in itself. This is true both in terms of the initial assumptions made when designing such systems, the results they deliver and the (very dynamic) impact of the latter on both individuals and the community(ies). A number of rather unusual issues arise in this context, which seem worth paying some attention to.

A matter of questions, creativity and... laziness

As is well known, the amount of information produced every day is enormous – in the middle of the year 2024, it amounts to approximately $403 \cdot 10^6$ TB (*Amount of Data Created Daily (2024)*, 2023)[9]. It is interesting that the very fact of the enormous production of information has provoked questions about how to find ourselves in this situation. In turn, this has led to a revival of almost stoic positions suggesting moderation in the use of digital technologies (Spence, 2021), as well as the need to develop a kind of information hygiene ((Robson, 2017), (Hołyst et al., 2024)).

Let the situation be given: a philosopher (physicist, chemist, ...) decides to write a monograph or article on a topic. In today's terms, usually the work of such an endeavour includes one important point: a literature review, in order to find out whether anyone has already published anything on the topic.

An overview of this kind undoubtedly helps to get an idea of the situation, but also to draw some inspiration for the work[10]. Modern search engines are equipped with artificial intelligence algorithms; moreover, those based on generative AI can provide abstracts of already available papers on a given topic. Undoubtedly, the situation of providing a sizeable number of papers with abstracts is very encouraging and encouraging. However, very interesting issues arise when the following question is posed: what about the articles and books that had no chance to catch the list? The first answer to such a question would be that they apparently did not meet the criteria that the philosopher under consideration had in mind. However, firstly, these criteria were applied by a search system designed with various tools to deal with the problem (e.g. by using bibliometric analysis, etc., cf. e.g. (Roetzel, 2019)), and therefore not necessarily by the philosopher himself. Secondly, it seems that a philosopher, sometimes when reviewing a paper that does not seem to be relevant to the topic, may take inspiration from it for his or her research. So, on the one hand, here we have a flip of competence to the system (criteria), and – potentially – the possibility of being deprived of sources of inspiration that are not directly related to the research topic.

Of course, this is a completely fictitious situation – no human being is (usually) in a position to currently review all the works that deal with a topic of interest. This is all the more true of all works that could provide some kind of inspiration (especially as it is not very possible to strictly define what will inspire someone in a given research situation). It does, however, suggest a rather important possibility: humans can, associate distant areas so that a benefit to their research results. In part, AI research itself is an example of this, if only through the use of various mathematical means to simulate the operation of elements of the biological system[11]. Nevertheless, AI-based tools can effectively help to tame information chaos and organise it in some way, and to navigate the enormous amount of information produced.

This situation seems to be possible because AI systems are constructed – simplifying the issue greatly – to provide the answer that statistics suggest will be the most likely. Two features of such an operation seem relevant here:

Q1. providing answers and

Q2. its statistically highest probability.

As already mentioned, at the most fundamental layer, in order to be able to carry out scientific research (of any kind), the question is posed in a mostly unconscious way: 'how things really run' or 'do things run this way and that way'? Thus, on the one hand, the possibility of an answer is assumed, while on the other – which does not seem obvious – the question is posed. This very identification of the problem situation and the posing of the question seems here to be at the centre of the scientific endeavour and of the rational research effort (cf. e.g. (Heller, 1997)). It is precisely this posing of questions and questioning of results already obtained that seems most valuable here.

It seems to be clear that the ease of access to the literature, and the potential ease of searching it, can fundamentally expand the possibilities of contemporary intellectual work – building precisely on the property of Q1. To be able to exploit this, however, one must possess the ability to ask questions and to think critically. These two properties, however, can easily be seriously undermined if, in principle, the exemplary philosopher is not accustomed to a certain intellectual effort accompanying the posing of questions and the independent search for answers[12] (on this topic cf. (Ahmad et al., 2023)). In a sense, it could be said that the success of AI technology creates the possibility of a kind of trap of overconfidence in the technology just because the results seem impressive. Hence, as Cappalen and Dever put it, such trust 'simply because it is well-written software, based on sophisticated mathematical apparatus, seems insufficient at best' ((Cappelen & Dever, 2021))[13]. The problem is that the search for truth is not satisfied with even the most reliable data. It seems clear that questions can always be asked at any point in the scientific enterprise: Is this really the case? Does nothing escape our description of reality? It can therefore be said that this search is a never-ending process, even if the data provided by AI systems seem to provide a sufficiently accurate and reliable picture of reality[14].

Another thing is, that – so to speak – the delivering quite accurate answers to questions, seen as undoubted success, may also to be an inhibitor of intellectual effort undertaken by individuals. If a system "knows" the answers, why bother developing the ability (and capacity) of finding answer to questions[15]?

At this point, a few words about the other two Platonic categories of goodness and beauty seem justified. An uncritical trust in the results provided by AI systems could lead to a dystopian vision of recognising as good what a given defines as good. Similarly, if we work on the assumption, with all the controversies surrounding beauty, that artistic work involves a kind

of transfer of the human experience of reality as it appears[16] (c.f. (Scruton, 2008)), of certain of its qualities that the artist wishes to convey, then here too a specifically human, important element of the process seems to disappear and not to be the desired effect.

This considerable success also seems (like other successes of modern technology) to suggest that it would be best to focus precisely on a more pragmatic approach to cognitive processes and to focus essentially on what can be practically applied, preferably with the greatest possible success. By the same token, however, this would imply a triumph of the transformative-imaginative paradigm characteristic of technology. In turn, combined with Grobler's remark mentioned earlier, this would threaten the rather rapid exhaustion and stagnation of the vast majority of research efforts[17]. In turn, such a situation could lead to the rapid erosion of one of the fundamental pillars of civilisation, of which, as already mentioned, AI is one of the achievements, by being satisfied with the results provided by AI systems, instead of the pursuit of truth, even if the goal remains only an idea.

A few words should also be devoted to the Q2 attribute of obtaining the most likely answer at a given point in time and with the data set at hand. Two points can be seen here that would require attention. The first is that such an answer, if correct, does not in principle necessarily make any qualitative step forward. The idea of such a qualitative step is best seen in the case of theoretical physics and the search for a theory that connects all interactions. One can venture the thesis that, since the entry into the arena of quantum mechanics, in fundamental matters the whole of modern physics is based on (various kinds of) variations of quantum theory and general relativity. Significant progress has been made within these, however, not yet apparent – despite the commitment of many researchers and considerable resources. What is missing, perhaps, is some new physical idea (or a whole set of them), not necessarily plausible at a given point in time, but one that, when translated into a mathematical formalism, would give the expected results (for more on this see: (Staruszkiewicz, 2001)).

The second problem with the Q2 property is that – potentially – it can cause precisely a kind of 'creative averaging', locking in a certain bubble of possibilities by indiscriminately using answers or works, provided by generative AI systems. Thus, the possibility of stifling or outright killing vibrant creativity appears here. It is interesting to note that this does not only apply to artistic creativity – similar effects can also be spoken of, it seems, in the area of the work of computer scientists. Of particular interest here seems to be the position of Leslie Lamport, who argues that programming

is something other than coding (code generation is slowly becoming part of programming practices[18]). In his view, programming is about thinking in mathematical terms about what a programme has to do. This in turn requires an understanding of the mathematical concepts used and how they relate to the issue under consideration (cf. (ZME Science, 2019), (Quanta Magazine, 2022)). It also requires a kind of training of the mathematical imagination, which becomes an issue if one stops only at the program code provided by generative AI, without extending knowledge and experience that are independent of the results provided by AI systems. Here also opens another vast field of further study, embracing the problem of AI's influence on creative imaginative thinking in given area, specially very important category, that is: thought experiments.

This is undoubtedly an issue worthy of further research, nevertheless it seems, the aforementioned laziness in the intellectual field, is also possible in the realm of creative imagination (c.f. (George et al., 2024)), especially if accompanied by the belief that 'after all, AI will figure something out, so we don't have to'.

Conclusions

Therefore, in relation to the use of tools such as generative AI, can we speak only of the risks of civilisation itself? Certainly not, as long as this use is accompanied by appropriate education and reflection on education in the age of advanced information processing systems (cf. (Shah, 2023)). This, on the other hand, requires a critical approach to such advanced tools, including those developed by philosophers over the centuries.

This paper seeks to highlight the importance of the correspondence theory of truth for the scientific enterprise as a defining feature of Western civilisation. The potential threat to this driving force posed by uncritical reliance on generative AI has also been pointed out. It also has to be emphasized that, success of AI systems not helps here very much: it seems that 'transformative paradigm' has some advantage over scientific one. What is dangerous here is a possible illusion that we can bend the truth to our expectations, instead of finding it.

The analogous danger for genuinely creative thinking, both in terms of artistic works and scientific work, was also highlighted. In this context, there seems to be a legitimate demand for a special emphasis on the protection of genuine creativity, curiosity, critical thinking and posing questions to the ability to make an effort in the pursuit of truth and understanding. Such

protection seems absolutely necessary if the delight in the possibilities of new technologies is not to degenerate into the swan song of a rational functioning civilisation and, consequently, a rational functioning of human beings.

NOTES

[1] It is interesting to note that Franssen & al. (Franssen et al., 2023) point out that an analogous distinction was proposed earlier by Henryk Skolimowski. According to Skolimowski, science deals with what is, while technique deals with what is to be (Skolimowski, 1966).

[2] At this point, I should like to express my thanks to the participants of the Philosophy in Technology conference series for the many inspiring talks.

[3] The controversy over the ontological status of mathematical objects will be completely disregarded here, as it would risk bursting the present study into unacceptable size...

[4] For this comment, linked to point P1, I thank Krzysztof Graczyk. From there, the interesting results referred to in P2 are described in: (Graczyk & Witkowski, 2023) and (Graczyk et al., 2023).

[5] However, ethical issues as such are not the subject of study of this work.

[6] Within this thesis, rationality is understood in the colloquial sense, as thinking or acting guided by reason, based on logically controllable principles. For a broader discussion of the issue of rationality, see: (Audi, 2002).

[7] As Whitehead puts it: "The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato. I do not mean the systematic scheme of thought which scholars have doubtfully extracted from his writings. I allude to the wealth of general ideas scattered through them." (Whitehead, 1978).

[8] Consideration of the other two elements of the classical triad would significantly exceed the scope of this study.

[9] Accessed 15.07.2024.

[10] Or – knowing the pace of information production and publication – complete discouragement if one finds that quite a lot has already been published on the subject and it is almost the same as what the considered exemplary philosopher wanted to convey.... However, a positive development is assumed here.

[11] It should be noted here that the very application of mathematics to the description of natural phenomena is not all that obvious. One could say that it is so ingrained in modern thinking that it is taken for granted, especially in the field of physics. However, the fact that mathematical tools can also be used to model more advanced systems is not so self-evident (in the same way as in physics).

[12] Even if this search is 'assisted' by AI systems – it is also about being critical of the results they receive. The problem is that there is unfortunately more and more information that would require at least partial verification.

[13] Even in simpler cases, great caution is advisable in relying on 'reputable' software, cf. (Maślanka & Koleżyński, 2022).

[14] Here another few attractive areas of further research arise: 1) What is reality in the context of LLMs shaping thinking? 2) Shouldn't we reconsider the notion of scientific knowledge (or knowledge as such) in the age of AI, as well as notions of explanation and justification?

[15] As a simple example of such a situation can be regarded process of translating text using automatic translators. It might cause a feeling that learning given foreign language is completely obsolete. So it could be, in certain circumstances, a perfect example of a kind of intellectual laziness. It also seems, that the subject of correlation of development of information processing technologies, and possible development of laziness is very tempting area of further research.

[16] Again, here a correspondence to the reality can be found, which is not the property of AI systems.

[17] Which is not to say that the search for answers to practical difficulties cannot lead to deep theoretical analyses. Of the more interesting cases of this kind, one should probably mention the genesis of a whole class of equations, called thermal transport equations, linked to the search for the appropriate depth of the wine storage cellar (cf. (Cadeddu & Cauli, 2018)).

[18] To what extent this is good practice remains a matter of debate and its subject is not the focus of this paper.

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