

# Issues with generative artificial intelligence tools

Saida K. Labazanova<sup>1\*</sup>, Timur G. Aygumov<sup>2</sup>, and Marat Kh. Mursaliev<sup>2</sup>

<sup>1</sup>Kadyrov Chechen State University, Grozny, Russia

<sup>2</sup>Dagestan State Technical University, Makhachkala, Russia

**Abstract.** Technological progress thrives any industry with its correct implementation. Technological improvement further levels up implemented fields. Although, the results not always pleasing to the eye and pockets. The idea is that technology is and will have some issues, varying from mild to severe. In the era of refined technology, one shines out from the most, and it is artificial intelligence. Its capabilities are enormous and application thus vast. The innovation branched into the different tools, that it is hard for one to follow and use the new ones, that emerges almost daily. This article will be focusing on the generative tools that are capable of mimicking almost anything, starting from text and ending with long sequences of imageries. Above all on its issues. As an outcome of the last, the possible solutions will also be discussed.

## 1 Introduction

Modern life of common man differs from the predecessors. Our life is filled with technology and tools that we carry most of the time with us or use them daily. These technologies are dramatically changing our life and restructuring it in the most unnatural ways. These technologies penetrated not just human lives but different industries. In both cases, technologies introduce many possibilities for improvements and hence they are embedded with roots. This means that the technology plays a vital role in our society, and it will not be easy to remove them from the system. Therefore, the balance must be kept tightly.

There are many new technologies that emerge lately too frequently. These technologies are transforming the way of living drastically. The most popular one in this decade is Artificial intelligence. The technology is set to replace humans in certain task. Indeed, the technology is devouring many professions by storm. Its capabilities are countless. It's embedded itself almost in every field, transforming them in the positive and most importantly, profitable ways. These fields that introduced Artificial intelligence, thriving from its use. The technology itself is improving exponentially, causing some scientist to question the very nature of it use and its deep embedment into various strategic areas, fearing its future trend. Nonetheless, the technology is widely used [1, 2].

Artificial intelligence is divided into three categories. Weak, mediocre and strong artificial intelligence. In the first case, which is the one we utilize in modern time, the technology is capable of performing some of the tasks that humans are capable and some tasks the technology does better than humans. The nature of this technology is compared to

---

\* Corresponding author: [saida.labazanova88@mail.ru](mailto:saida.labazanova88@mail.ru)

human brain and its capabilities. Therefore, in the first case, it is considered less intelligent than human's brain. In the second case, the technology must be with the same level as human brain, and do almost anything that human is capable of. Of course, with the help of other technologies to achieve the task such as sensors, mechanisms, and other necessary parts). The third one, which is the strong artificial intelligence, must be exceeding the human capabilities and think beyond the human's nature. In this case, it is hard to imagine its effect on humans and to which it will lead as. As for now, the technology is already showing impressive results. Of course, there are some questionings that arise related to the quality and ethics.

This article will be focusing on generative artificial intelligence. This method is used in different areas of entertainment. There are many generative tools that are capable of generating different challenging tasks that human struggle to create in a short time. These tools are easily penetrating these fields related to entertainment. Hence, this work will consider these tools and their common issue when used [3, 4].

## 2 Generative AI

Generative Artificial intelligence is the algorithms or models that are built to generate different results. It can vary from generating text to difficult outcomes, such as complex images and even videos. These kinds of generative tools are used in different areas and are well embedded in the system of our life. Generative tools are very popular in masses and mostly utilized through different apps, software, and sites. The most notable use is to generate picture and lately to generate videos. For example, Midjourney and DALL.E are a great example of what are the possibilities of these tools. The following Figure 1 is generated using the DALL.E tool. To generate the Figure 1 the whole text of the article was put as a prompt. The other notable use is ChatGPT. Its power to generate different text is astonishing [5].



**Fig. 1.** generated image through DALL.E.

## **3 Issues related to generative artificial intelligence**

### **3.1 Misinformation and disinformation**

Emerged tools powered by artificial intelligence are capable of generating endless information. They can generate as it was noted above images, texts, videos and other information. It can generate not just text, but create it with different style and quality. Generative tools are perfect at creating information that it is hard to distinguished from humans. Therefore, there is a possibility that generated data will be used for harm. There are already some cases where these tools are used to spread misinformation. These tools can easily generate articles about anything in a second, and similarly some images for added impact. There are other severe cases where these tools are used by the intruders. For instance, intruders use generative tools to mimic voices and appearances and use the generated data to scam the family, relatives, friends, coworkers, and others [6].

### **3.2 Copyright issues**

Generative tools are guilty of creating the vast amounts of information that is somehow related to others' work. These data are not made up from idle space but from someone's work. It is a well-known fact that these tools use some data to generate the prompted outcomes. These generative tools do not directly copy, but use other material as reference. The type of results is threatening individuals in two ways. The generative tools steal the identity. In modern world, the individuality is the key aspect to peak out from the masses and illustrate the ideas that will always be connected to them. The second thing is related to work. These tools can easily mimic any stale and in a second do what would take much more time and effort if it was done by a human. Therefore, one can see that these tools are not just doing the jobs of people better and faster, but also flushing out some professions.

The outcome of such behavior is an unregulated field that introduces some uncertainties for the authors. For example, if one can ask these generative tools to generate poems in the style of some popular poets, it will do it immediately. If asked to generate the art in style of the famous painter, the result will not be generated for a while, but created immediately. These generated data will not be different from the originals. This means that these tools are not clearly regulated and are a threat to the real authors [7, 8].

### **3.3 Limits of the clear vision**

We all seen the capabilities of artificial intelligence and there is no doubt that generative tools provide some solid results. By the correct prompt, one can generate the necessary data from these tools. The outcome will always amaze and leave one with the open jaw. However, there are times when the generative tools will not provide what is asked from them. The results will be displaced a little to the wrong side and another specified prompt must be used. This might help in some cases. Nonetheless, in some cases generative tools will be unable to process correctly the ideas that were introduced. One needs to understand that these tools are still on their way to improvement and that intelligence as one can think. All the knowledge of these tools depends on the learning in the data provision [9, 10].

### **3.4 Dependence and lost of skills**

We have all seen the capabilities of artificial intelligence, and there is no doubt that generative tools provide some solid results. By the correct prompt, one can generate the necessary data

from these tools. The outcome will always amaze and leave one with an open jaw. However, there are times when the generative tools will not provide what is asked of them. The results will be displaced a little to the wrong side and another specified prompt must be used. This might help in some cases. Nonetheless, in some cases generative tools will be unable to process correctly the ideas that were introduced. One needs to understand that these tools are still on their way to improvement and that intelligence as one can think. All the knowledge of these tools depends on the learning in the data provision [11].

## **4 Possible solutions**

Addressing the complexities entwined with generative artificial intelligence tools demands a nuanced and multidimensional strategy. Primarily, an imperative lies in the augmentation of regulatory frameworks and vigilant oversight governing the genesis and deployment of such tools. Propounding lucid directives for the conscientious utilization of generative AI stands as a pivotal measure to assuage the perils associated with misinformation, copyright transgressions, and the generation of content that veers into ethical quandaries. This entails the establishment of benchmarks for data excellence, the advocacy for transparency in the construction of training datasets, and the institution of mechanisms adept at identifying and sieving out biased or injurious outputs.

Collaboration emerges as a linchpin in the labyrinth of challenges posed by generative AI. A harmonious synergy between the technological vanguard, policymakers, and ethicists manifests as an indispensable facet in fashioning solutions. Moreover, the crucible of education and awareness assumes paramount significance. Enlightening users, developers, and content artisans about the potential pitfalls and ethical nuances intrinsic to generative AI engenders a climate of judicious utilization. Essential, too, is the comprehension among individuals of the constraints of these tools and the reverberations their actions may unleash upon the ethical tapestry when wielded.

In addition, the pursuit of knowledge in the realms of AI ethics and bias mitigation should persevere. The trajectory encompasses the evolution of AI algorithms adept at swift detection and rectification of biases in real-time. Simultaneously, the advent of tools granting users the ability to tailor and govern the output of generative AI systems, aligning them seamlessly with their values and objectives, stands as an imperative facet of ongoing research.

Ultimately, the onus of responsible and ethical deployment of generative artificial intelligence tools rests upon a collective mandate necessitating ceaseless vigilance and preemptive measures. Through the fusion of meticulous regulation, enlightening education, collaborative endeavors, and the ongoing refinement of technological prowess, we stand poised to harness the potency of these tools while mitigating their adverse reverberations on the fabric of society.

## **5 Conclusion**

To conclude, the following work was done to highlight the issues that are met when dealing with generative artificial intelligence. Present provides us with the variety of tools powered by artificial intelligence that are built to generate data. However, there are always hidden issues that will occur throughout the use. Consequently, generative tools fall for such trap. The article illustrated what is artificial intelligence and how it used in different areas to benefit. Similarly, negative sides of these tools were also outlined. Some possible solutions also were considered.

## References

1. M.I. Jordan, T.M. Mitchell, *Science* **349(6245)**, 255-260 (2023)
2. I. Magomedov, E. Belashova, M.-D. Bersanov, *E3S Web of Conf.* **402**, 03042 (2023)
3. S. Hussain, P. Dixit, S. Hussain, *International Journal of Scientific Research in Computer Science Engineering and Information Technology* (2020)
4. I. Magomedov, M.M. Khulamkhanova, N.A. Staroverova, *BIO Web Conf.* **63**, 05010 (2023)
5. I. Magomedov, E. Belashova, M.-D. Bersanov, *International Scientific Siberian Transport Forum – TransSiberia* **402** (2023)
6. V.A. Gerasimov, M.G. Nuriev, D.A. Gashigullin, *International Russian Automation Conference* (2022)
7. R. Obuchowicz, M. Strzelecki, A. Piorkowski, *Artificial Intelligence in Medical Imaging and Image Processing*, MDPI (2023)
8. A. Singh, *A Survey of AI Text-to-Image and AI Text-to-Video Generators*, Conference: 2023 4th International Conference on Artificial Intelligence, Robotics and Control (AIRC) (2023)
9. J. Shabbir & T. Anwer, *Artificial Intelligence and its Role in Near Future*. ArXiv. **14(8)**, 1-11 (2015)
10. I.A. Magomedov et al., *IOP Conf. Ser.: Earth Environ. Sci.* **548**, 032029 (2020)
11. S. Wang, *AISC* **1147**, 397-404 (2020)