How artificial intelligence is flushing out professions

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Abstract. This article discusses how new technologies, particularly artificial intelligence or in other words AI-powered tools, have been replacing traditional professions in recent decades. The article highlights AI-powered tools such as Deepfake, Midjourney, and ChatGPT, an AI-powered language model, to demonstrate how these tools are replacing employees who have spent many years honing their skills. The work covers various AI-powered tools and their advantages and disadvantages from different perspectives. The emphasis although is on how these tools are replacing and displacing professions, and how individuals at risk of losing their jobs can cope with these changes.

1 Introduction

One of the main parts of human life is the professional aspect, which enables appropriate living standards. From a very young age, we are taught that one's future profession must be chosen as early as possible to study and sharpen the necessary skills. However, modern times introduce new realities that completely change these well-established foundations. New technology embeds comfort and ease into our lives, making it hard to resist. These new technologies improve all possible sectors and take control over the workforce. These transformations occur due to improvements in technological processes or events that force people, communities, governments, or the whole world to adopt new approaches and technologies.

From one angle, these technologies have a positive impact on society, but there is always another side. They elevate any industry through automation and hence reduce the cost and time involved in producing any given product. However, new approaches and technologies can also have negative effects in different areas. With the population rise and the need for an increase in production rates, technologies can act as both an increaser of production rates and a tool that catalyses pollution of the atmosphere. Misuse can also have a negative influence. Therefore, technology integration and embedment are inevitable parts of our lives, and adopting new realities and improving these novelties is essential [1, 2].

The following work aims to show how new technologies are flushing out professions in recent decades. The new innovative ways of handling some processes are so effective that

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they are preferable to industries over humans in terms of space, working hours, and most importantly, cost, quantity, and quality. Lately, many employees doubt their profession, as something can completely replace their job and do it far better. Artificial intelligence is a new thing (although it was a fantasy few decades before) that is very popular lately. Artificial intelligence can mimic almost anything, making it easier to use than humans. Therefore, the work will use derivative tools that come from AI usage as examples to illustrate how they are flushing out professions.

2 AI Powered tool

2.1 Deepfake

The first memorable mention that shook the internet and masses was deepfake technology. Deepfake is a type of technology that shook the internet and attracted widespread attention due to its ability to create highly realistic fake images, videos, and audio recordings [3]. It uses artificial intelligence to manipulate media and create content that appears to be genuine, even though it is entirely fabricated. People began to recognize and learn about artificial intelligence that could do difficult manipulations that took ages to do before. Deepfake was not the first technology made using artificial intelligence, but it was the one that garnered attention and inspired other developers to bring their ideas to the spotlight. In the following years, many tools emerged, and each new tool took less time to develop than the old ones, increasing their frequency of occurrence. At first, these tools were warmly welcomed and used. However, as time passed, a strange tendency was noted as they began replacing employees who had studied for many years to hone their skills [4].

2.2 Midjourney

The AI tool in question is designed to generate highly realistic images by simply submitting a descriptive request. This revolutionary tool has caused a second wave of discussion in the media and has taken the image-generating process to a whole new level. With this AI powered tool, generating images in short time has become incredibly easy, and it produces slightly different outcomes each time the request is provided. However, it is crucial to understand that this neural network cannot fully comprehend the exact meaning of the words that humans provide. Consequently, there is always a chance that the tool will interpret the meaning of the request in its own way. Most of the time, it does provide solid and high-quality images, but there are still some limitations to the tool. One of the main issues is the interpretation of the request. It can be difficult to precisely convey the idea in our minds through a simple description, and there is always a chance that the tool will add extra details or miss some essential ones. Additionally, the tool struggles with small details of cohesiveness and structure, particularly when it comes to generating realistic hands of humans (sometimes other parts too). However, with the continuous improvement of the tool, these issues and others will be eliminated in due time. The real challenge, however, is the generation of fake content within seconds that can be used to misinform the population. Some constraints have been introduced to lower the amount of fake content, but it is still happening [5].

2.3 ChatGPT

This tool also exhibits similar behavior to the previously mentioned tool. Chatgpt is designed to generate text based on requests. Compared to other traditional tools, Chatgpt can
understand the meaning of the request and recall all the steps taken throughout the conversation to provide personalized responses. Chatgpt has access to massive amounts of data which it can classify in the requested way. Its ability to generate text in different styles and for various purposes makes it an irreplaceable tool for different sectors in the media and other industries in general. Newer versions of the tool even support creating tables, graphs, and different programming languages. As the tool improves, other features are likely to be added. However, the Chatgpt tool is constrained by the data it has gathered only up to 2021, although the technology's creators continue to update some of the data. Another disadvantage of the tool is the trust issues with the information it provides. It can sometimes give wrong answers or misunderstand the request, resulting in inaccurate output. Therefore, one cannot fully rely on the tool's provided information and should ideally be a skilled professional in the relevant field. As it can generate wrong answers or mislead, it can also be used to generate fake information. The tool's vast capabilities provide ample opportunities for creative users to utilize it, but caution must be exercised to avoid spreading misinformation [6].

2.4 Other AI tools

Several AI-powered tools exist that can generate creative content in the market, although not all of them are as well-known as those mentioned in the media. For instance, there are tools (AI powered) that specialize in creating informative and visually appealing presentations with different formats, while others can generate logos and even full merchandise designs by providing necessary information. There are also a variety of AI-powered video, audio, and photo editors that are capable of performing a range of tasks, some of which are similar to or even surpass the abilities of the market's current software. As these AI tools continue to improve further, they will likely dominate the market and outperform current capabilities. The list of such tools is endless, and new ones are being developed every day, making it nearly impossible for one to track them all thoroughly [7, 8, 9].

3 Flushing out of professions

Before discussing more general implications, let's take a closer look at three specific AI-powered tools. Deepfake, which is used to generate realistic images, may seem harmless to many employees at first. However, as its full capacity and capabilities improve, it has the potential to replace those using software to generate CGI in the movie-making industry and related professions. Midjourney, on the other hand, is displacing many artists as it can generate any image in seconds and with any style. The emergence of this tool has left many artists with skills that are no longer in demand, putting them at risk of being unwanted in the market. Similarly, ChatGPT is replacing a large portion of the workforce, as it can generate any type of text with different styles. For instance, in content creation, ChatGPT can assist with generating articles, social media posts, and other written content. In different customer services, the these tools can provide instant support to those who requested by answering their questions and providing solutions to their problems. For example, in field of journalism where this kind of tool is irreplaceable, ChatGPT can guide in research and fact-checking, as well as generate text on specific topics [10, 11].

While it's true that these AI-powered tools will not replace everyone, not in present, in some areas these tools can perform different tasks better than humans (employees), making their replacement inevitable. Many other AI powered tools are also emerging yearly, and as their usability continue to expand further, they may take over quite more professions, which is true if observing nowadays tendencies.
4 How to cope with new realis

Without further getting into the problem and crossing out from opportunities is to adapt to the changes as quickly as possible. We as humans and anything surrounding us are built and structured in a way that allows us to adapt to new challenges and environments using various techniques. Therefore, one must adapt to the new realis and try to fit accordingly.

AI powered tools can be used as equipment to conquer new skills [12]. The same tools that are flushing out of professions can be used to create new ones. By learning how to use AI-powered tools, individuals or those who are at higher risk can develop new skills that will make them more valuable in the job market in present and future too. Of course, adapting to these challenges won't happen overnight or in fast pace, and it may take some time. However, by being open to learning and exploring new technologies, ones can position themselves for success in the future and probably in the present. It's also important to recognize that these AI powered tools are constantly evolving and improving. New tools and techniques are emerging every day, and staying up to date with these developments will be crucial for anyone looking to succeed in today's rapidly changing job market.

Although, no need to panic as at the moment these tools are still at their development. Surely, they can provide solid results, but there is some limitation to them too. For example, as it was mentioned before these tools can not comprehend the whole meaning of the insight one’s request as in figure 4 (photo was generated using free tool, which is “Diffusionart”) [13]. When using keywords to generate the image, one idea was in mind, but the image generating tool gave a completely different idea. But it doesn’t mean they will not improve further, and hence one has time to further expand the skills or completely redirect, while there is still a chance.

Fig. 1. Generated image (neural network).

5 Conclusion

The AI-powered tools mentioned in this work, including Deepfake, Midjourney, and ChatGPT, have revolutionized the process of image and text generation, making it more efficient, cost-effective, and less time-consuming. However, these tools have limitations such as trust issues with the information they provide, potential for generating fake content, and difficulty interpreting requests. Moreover, they are displacing certain professions, causing many employees to question their skills. Therefore, it is important to understand that these
tools may eventually replace many jobs, and it is necessary to adapt and sharpen one's skills for the new reality. However, it's also important to note that AI-powered tools can automate repetitive and time-consuming tasks, freeing up professionals to focus on more creative and strategic work.

References