## Introduction

With the development of Artificial Intelligence and especially ChatGPT3, many jobs are seriously under threat of being replaced by AI. We found that mainly entry-level jobs that focus solely on mental activities are threatened by AI the most: Content writer, Programmer, and Graphic Designer, Virtual Assistant. Today, AI can neither replace professional-level jobs nor jobs requiring physical activities, such as nurses and policemen.

Even if physical activities are safer from AI replacement, it does not necessarily mean these jobs are highly paid. The highest-paid jobs are mental activities rather than physically focused activities: Doctors, programmers, lawyers, and bankers.

To understand what jobs are under threat, let's look at AI's core competency first.

## What AI is good at

1. Search data
2. Classify data
3. Aggregate data
4. Translate data
5. Analyze data
6. Recognize speech
7. Recognize image
8. Process natural language

As a natural language model, the AI can search MORE data than humans and CALCULATE faster than we do. In General, they are better at pure data manipulation, and their output is pure VIRTUAL.

**Mental tasks:** Photo, video, and sound manipulation fall all under the data manipulation category because they are all collections of bits and bytes. [They are all mental activities](https://en.wikipedia.org/wiki/Applications_of_artificial_intelligence#List_of_applications). On the other hand, AI development in the physical world is less developed than in the virtual world. [More innovations in the space of software are created than in the space of hardware](https://www.quora.com/Why-does-more-innovation-happen-in-software-than-hardware). Since AI is good at performing mental tasks, physical jobs are less threatened by AI.

**Repetitive tasks:** All machines are suitable for all repetitive tasks, which is valid for AI. The opposite of this is creative problem solving which AI still needs to catch up to humans.

## What AI is bad at

**Give Long answers:**Chatgpt right now can give short answers. But the long text form still needs to catch up with statistical proof, deeper reasoning, and more domain-specific insights. A bot can write a short joke in 3 sentences. Still, they cannot create a sophisticated 10 pages market analysis of your desired topic. This is because the longer the content form, the more choices are presented during the generation, and the less likely an AI will be able to make these choices.

For example: What is the purpose of the market analysis? Deep dive on the client, product, competitors, suppliers, or technology? What makes this market so unique that it is worth analyzing? When creating a deep analysis, all of these questions need to be decided by the human. AI is good at giving specific answers to specified questions. Writing long-form content is like walking a path of decisions about what you want to write about.

**Get Recent Information:** It is also unable to get the latest news because the large dataset needs training time. But this might be changed very soon with the continuous upgrade of training methods.

**Be Ethical:**Artificial Ethnic is a huge topic, where development is still very young. This will become more important together with the wide application of AI in our daily lives. People now only expect it to be correct and valuable. In the future, it will also need to be socio, political and ethnically correct.

**Be Active:** Right now, most AI is built as bots and doesn't actively participate in our daily lives. The human who wants to write an article asks AI to generate it. This makes AI stay as a tool rather than a real natural agent who acts on its own principles.

**Physical work:**We have seen the progress of AI in robotics by Boston dynamic also gaining substantial public attention. But compared to the impact AI can create in the virtual world, the achievement in the physical world seems relatively small. Following that logic, jobs that require physical activities are less likely to be dominated by AI, such as nurses, barbers, or firefighters.

**Innovative Reasoning:** AI is good at solving "old" problems that existed before on the internet by learning from existing answers. But it also has yet to find a solution for entirely new problems. It is like asking a consulting company what the next big thing 10 years ago was, and you would have needed someone to tell you to build Tik Tok. Building a new startup is sometimes counterintuitive. The more people disbelieve, the less the competition and the higher chance of success. Sometimes a bold answer is a right answer. Right now, AI can give correct but conservative answers. It cannot give bold and truly innovative solutions.

## Copywriter

Chat GPT is exceptionally sound at giving aggregated text answers. Jobs that mainly manipulate text and provide informational value are highly under threat.

Similar to copywriters, these jobs are equally under threat:

1. Content writer
2. Copy Writer
3. Blog Writer
4. Journalist
5. Social Media Marketer
6. Book Author
7. Song Writer
8. Advertiser Writer

The text can be translated, rephrased, summarized and reordered to create new text answers that are hard to distinguish from human-written articles.

ChatGpt creates rather general answers. Exceptionally creative people should be fine with AI for now.

On the other hand, AI is also used to detect copied or AI-generated content.

The current detection method needs to catch up to AI development. There are tools such as [CopyLeaks](https://copyleaks.com/features/ai-content-detector" \t "_blank), but if the content is rephrased using [Quillbot](https://quillbot.com/" \t "_blank), many detectors fail to find the plagiarism.

It is generally harder to detect GPT3-generated content if a human adds a little touch.

Google also announced its war against spam content with its new principle, "[More content by People, for People](https://blog.google/products/search/more-content-by-people-for-people-in-search/)." The fight against AI-generated content is ongoing. Currently, there is yet to be a clear winner.

## Customer Support

On Fiverr, many freelancers offer customer support or [virtual assistance jobs](https://www.google.com.hk/search?q=fiverr+virtual+assistant&rlz=1C1GCEU_zh-CNHK977HK977&oq=fiver+virtual+a&aqs=chrome.1.69i57j0i10i512l9.5935j0j7&sourceid=chrome&ie=UTF-8). These small perks might be under threat in the next 5 years as their core deliverables are highly match with the core ability of ChatGPT.

ChatGPT can provide support to customers through emails and messages and give that "empathetic help" that makes customers feel like they're talking with a natural person.

These jobs usually handle repetitive problems that AI can train and learn effectively.

## Programmer

This is ironic because programmers and developers are one of the highest-paid jobs right now in almost all countries. And yet, their entry-level programmer needs to improve to reach a safe zone.

The core capability of AI is writing code. In the future, programmers may mainly be taught how to express problems to AI rather than writing code themselves.

[Professional-level jobs are still relevant](https://medium.com/@internetpreneur/why-chat-gpt-will-not-replace-programmers-e6f33e02618) as people need to debug, launch and deploy the entire infrastructure, not just the single program code.

For the professional-level programmer, this is another story.

Maybe 95% of scenarios of a programmer using ChatGPT are by

someone who already knows how to program (and often knows the correct program/answer) gets ChatGPT to produce the correct answer.

ChatGPT will make developers more efficient. It won't replace them because you need to actually know what to ask for, which means you need to understand the problem you're trying to solve. **That** is the challenging part of writing software. The chatbot just saves you a lot of labor and syntax errors. It is more of a compiler helper rather than a problem solver as of right now.

## Graphic Designer

Similar to a programmer, the core deliverables of graphic designers are mental information which falls into the text manipulations that the chatbot is doing well.

ChatGPT can generate unique designs tailored to the user's needs, allowing them to create more creative and unique designs than a human designer could create.

[Wix ADI](https://www.wix.com/blog/2016/06/wix-artificial-design-intelligence/) was already launched in 2016 to generate websites designed by AI.

Websites like [uizard.io](https://uizard.io/) are gaining massive popularity among web designers worldwide too.

## Translator

While [the general public still](https://www.linkedin.com/pulse/artificial-intelligence-replace-human-translation-crystal-hues-ltd#:~:text=AI%20can%20never%20replace%20human,understand%20and%20process%20these%20complexities.) believes that translation can never be replaced by AI, I hold the opposite position. The reasons given by the counterparties are:

1. Machines Cannot Express Feelings and Emotions Like Humans
2. Style and Tone May Be Beyond a Machines Purview
3. Machines Can't Keep Up With Language Changes
4. Machines Don't Understand Complex Human Cultures
5. A Translation Cannot Be Complete Without the Human Touch

Yes, AI is not fully capable right now, but if you have used chatbots, you would mostly agree that it will become possible in the next 5-10 years.

ChatGPT can replace a translator because it already can understand and translate conversations in real-time. It can also provide more accurate translations than an entry-level human translator, as it can learn from its mistakes and improve over time. It even outperforms the current best online translation tool, Deepl and Google， according to [this experiment](https://metaroids.com/learn/google-translate-vs-chatgpt-vs-deepl-translator-ultimate-showdown/) from January 2023.

Language teachers are similarly under that because you can tell ChatGPT3 to act as a teacher so that it corrects your grammatical mistakes. This is even more personal and private than having a personal teacher, let alone the teaching staff cost.

## Jobs less affected by AI

1. Business consultant:
2. Market researcher
3. Business Analyst
4. Social Worker
5. Psychologist
6. Lawyer
7. Physician
8. Dentist
9. Veterinarian
10. Nurse
11. Teacher
12. Chef
13. Artist
14. Musician
15. Writer
16. Actor
17. Carpenter
18. Plumber
19. Electrician
20. Construction Worker

## Conclusion

People and philosophers in the past wrongly thought that only humans could reason and be creative. [The Chinese Room](https://plato.stanford.edu/entries/chinese-room/) was a thought experiment published in 2004 to address this philosophical question.

And the fact is, some mental and creative tasks can be done by AI already today. AlphaGo has shown moves that are very [good yet creative](https://www.johnmenick.com/writing/move-37-alpha-go-deep-mind.html) and counterintuitive.

From a practical perspective, as long as the output is human-like, it will find its application in our daily lives, just like a calculator.

These jobs are no longer safe by default. Only real thinkers, inventors, and differentiators can prevail when being common are no longer rewarded.

General tip, the longer your mental content, the more differentiated the more likely you can compete with AI. This is because AI can write a good answer in 10 sentences, but it can not write a good book in 100 pages.