

# How Does Artificial Intelligence Imagine Professions ?

## Background

Midjourney is an Artificial Intelligence tool used for making original photos with a prompt. Midjourney learns from other artwork, websites, and photos to try and make the correct image. It does not always work...

## Hypothesis

I was exploring these tools when I saw that one of the pictures was not correct. I knew that it was not always accurate because it learns from the not-always-accurate internet. I wondered if the AI would show different professions correctly. I think that the less common jobs will have more incorrect pictures, while more common jobs would be realistic.

## Methods

I tested Midjourney 90 times (16 times for each of 5 professions and 1 control):

- "/imagine [PROMPT: medical doctor]"
- "/imagine [PROMPT: video game designer]"
- "/imagine [PROMPT: paleontologist]"
- "/imagine [PROMPT: teacher]"
- "/imagine [PROMPT: robotics engineer]"
- "/imagine [PROMPT: people]" ← this was my control

I reviewed each AI-created image and tallied the images for

- Age
- Gender
- If they were humans
- If they were depicted correctly

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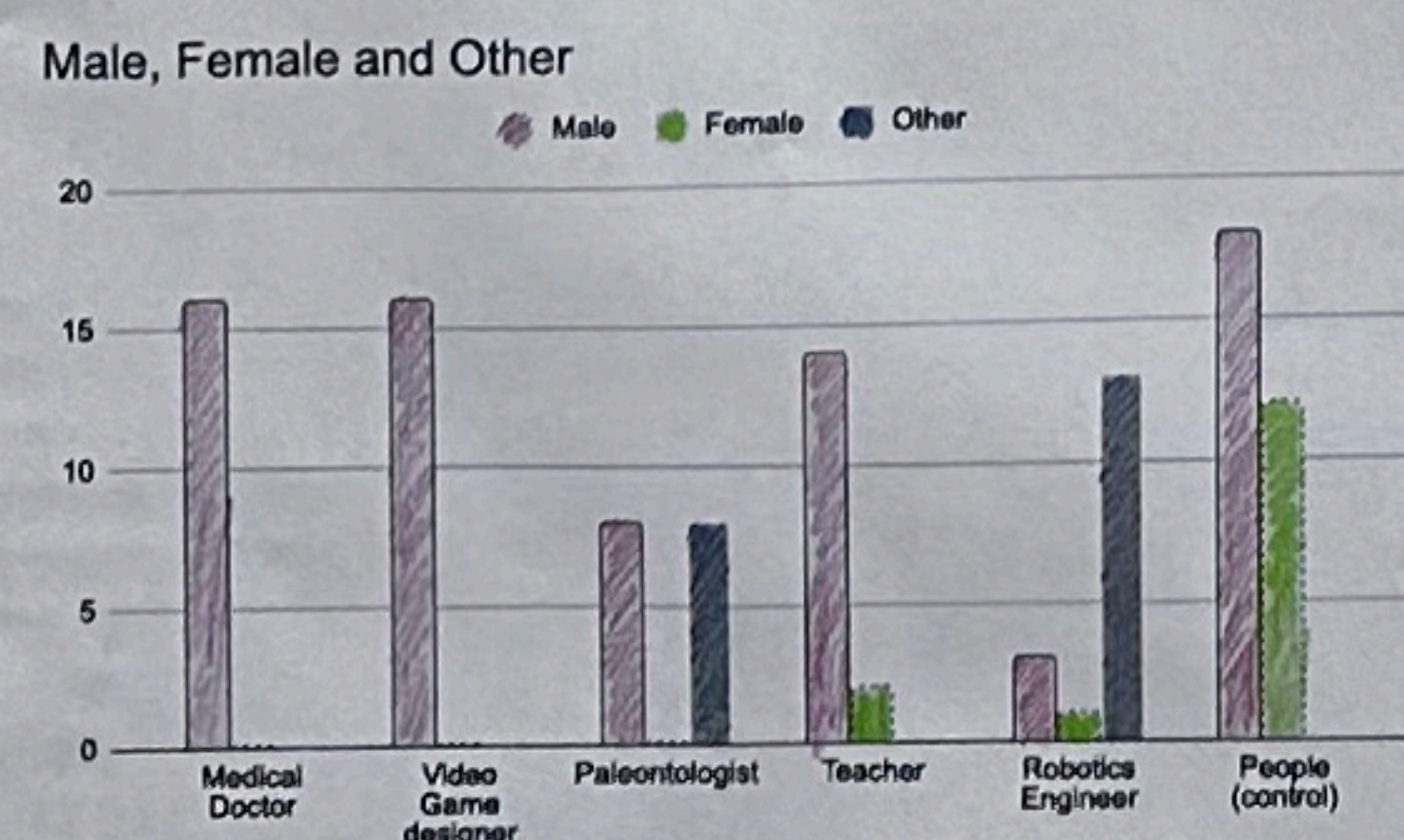
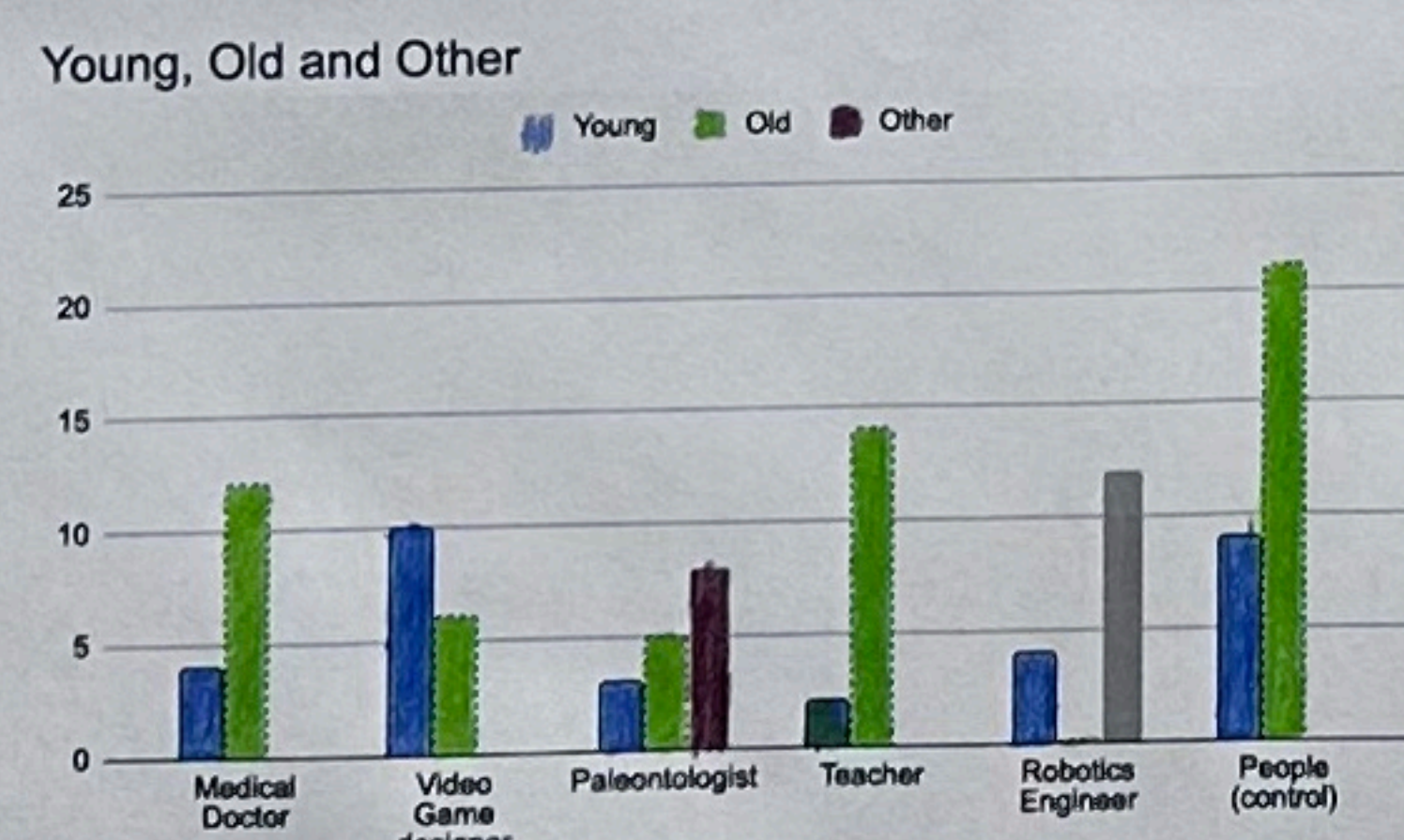
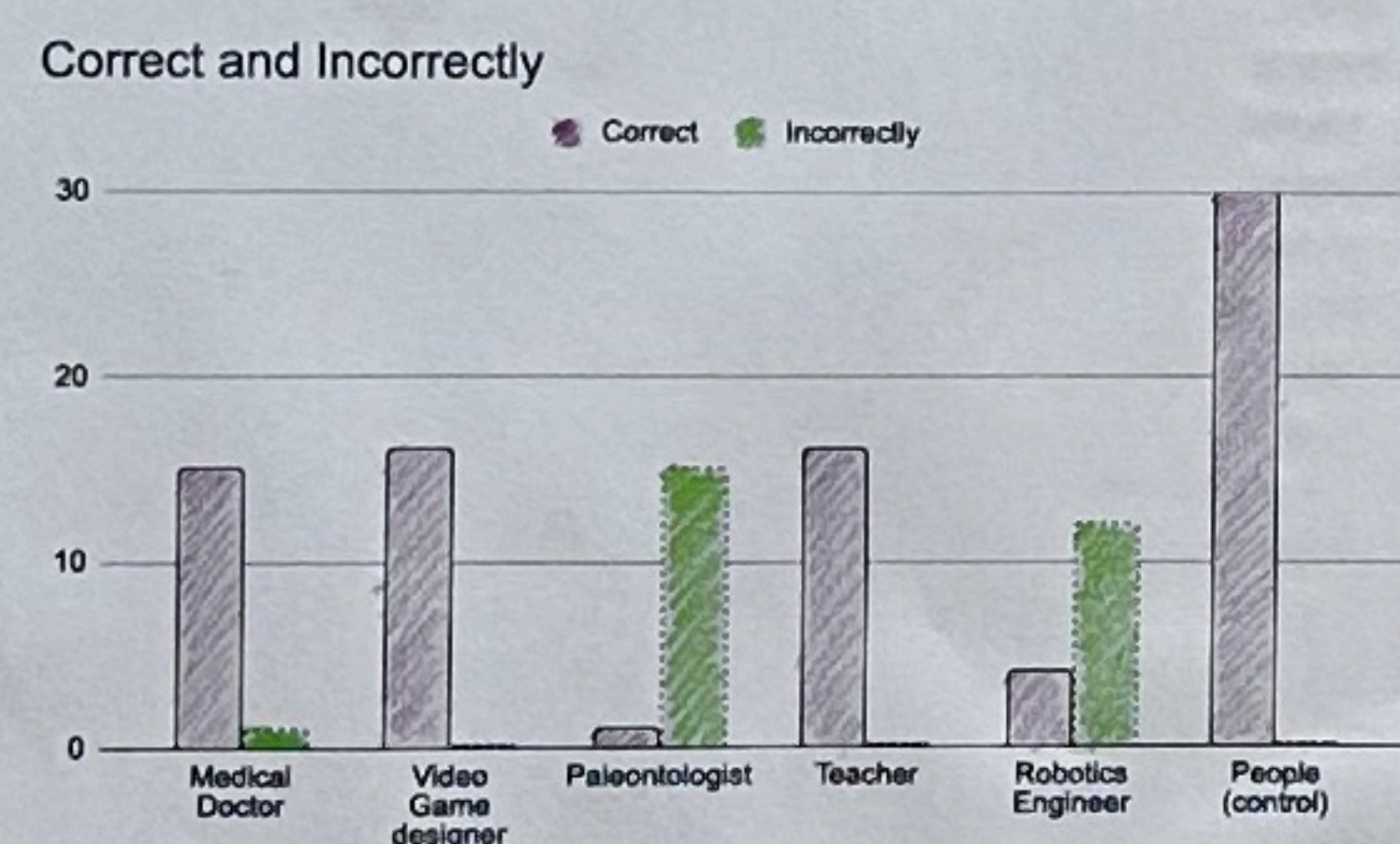
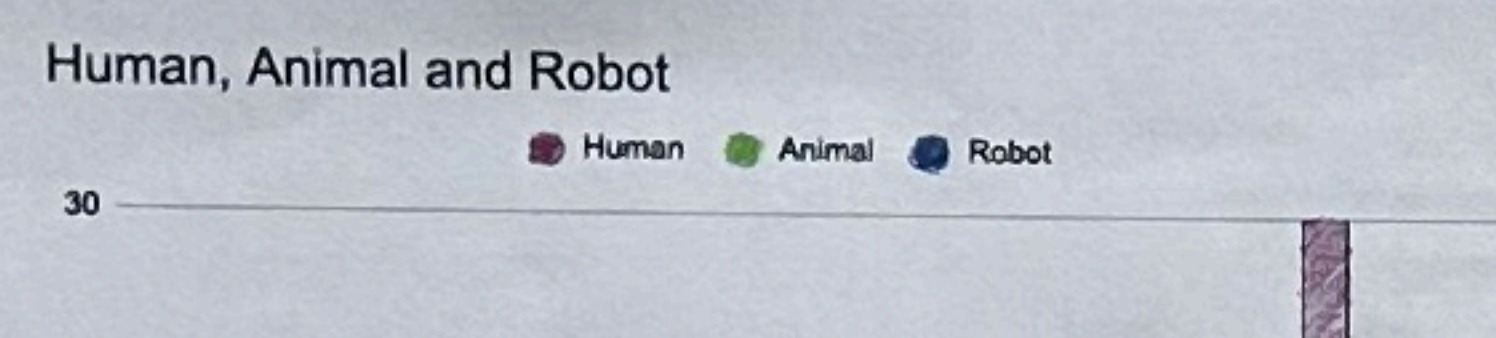
## Results

Young vs Old						
	Medical Doctor	Video Game designer	Paleontologist	Teacher	Robotics Engineer	People (control)
Young	4	10	3	2	4	9
Old	12	6	5	14	0	21
Other	0	0	8	0	12	0

Male vs Female						
	Medical Doctor	Video Game designer	Paleontologist	Teacher	Robotics Engineer	People (control)
Male	16	16	8	14	3	18
Female	0	0	0	2	1	12
Other	0	0	8	0	13	0

Human vs Not						
	Medical Doctor	Video Game designer	Paleontologist	Teacher	Robotics Engineer	People (control)
Human	16	16	8	16	4	30
Animal	0	0	8	0	0	0
Robot	0	0	0	0	12	0

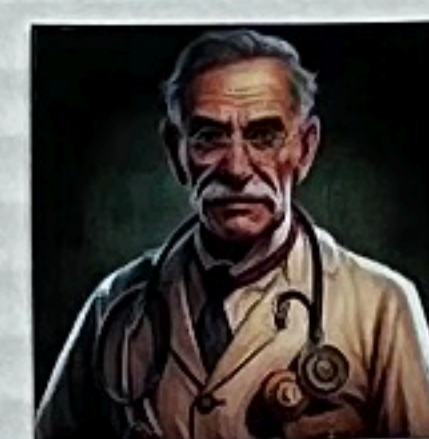
Depicted Correctly						
	Medical Doctor	Video Game designer	Paleontologist	Teacher	Robotics Engineer	People (control)
Correct	15	16	1	16	4	30
Incorrectly	1	0	15	0	12	0



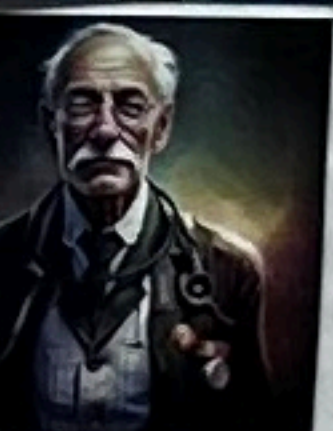
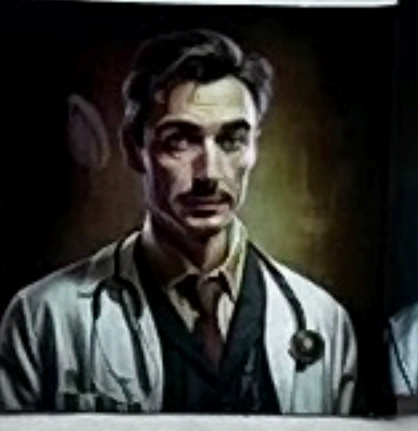
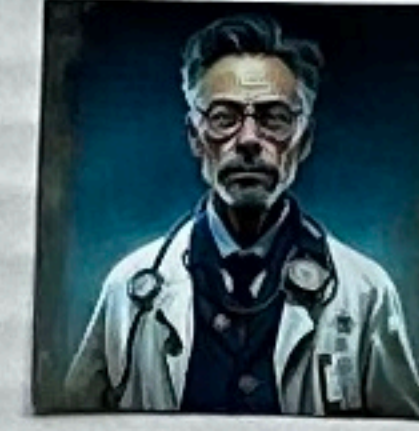
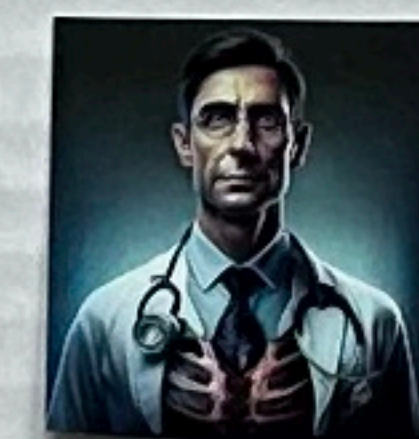
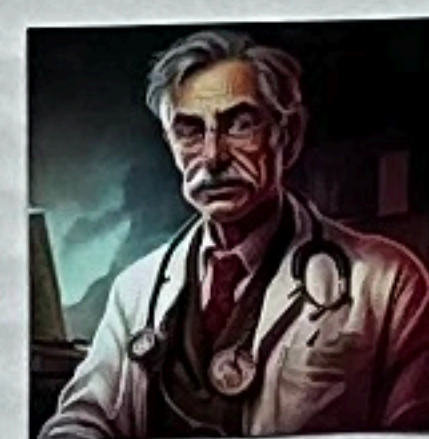
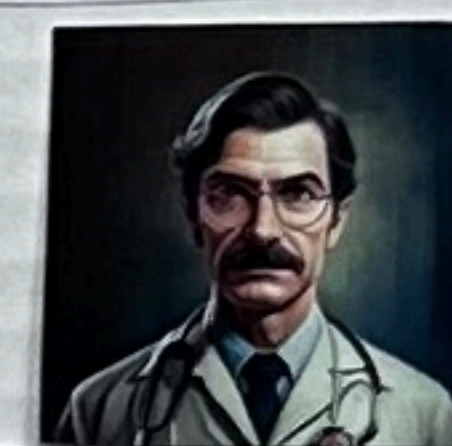
by Faaris Ahmed

Grade 5, Mr. Close's Class

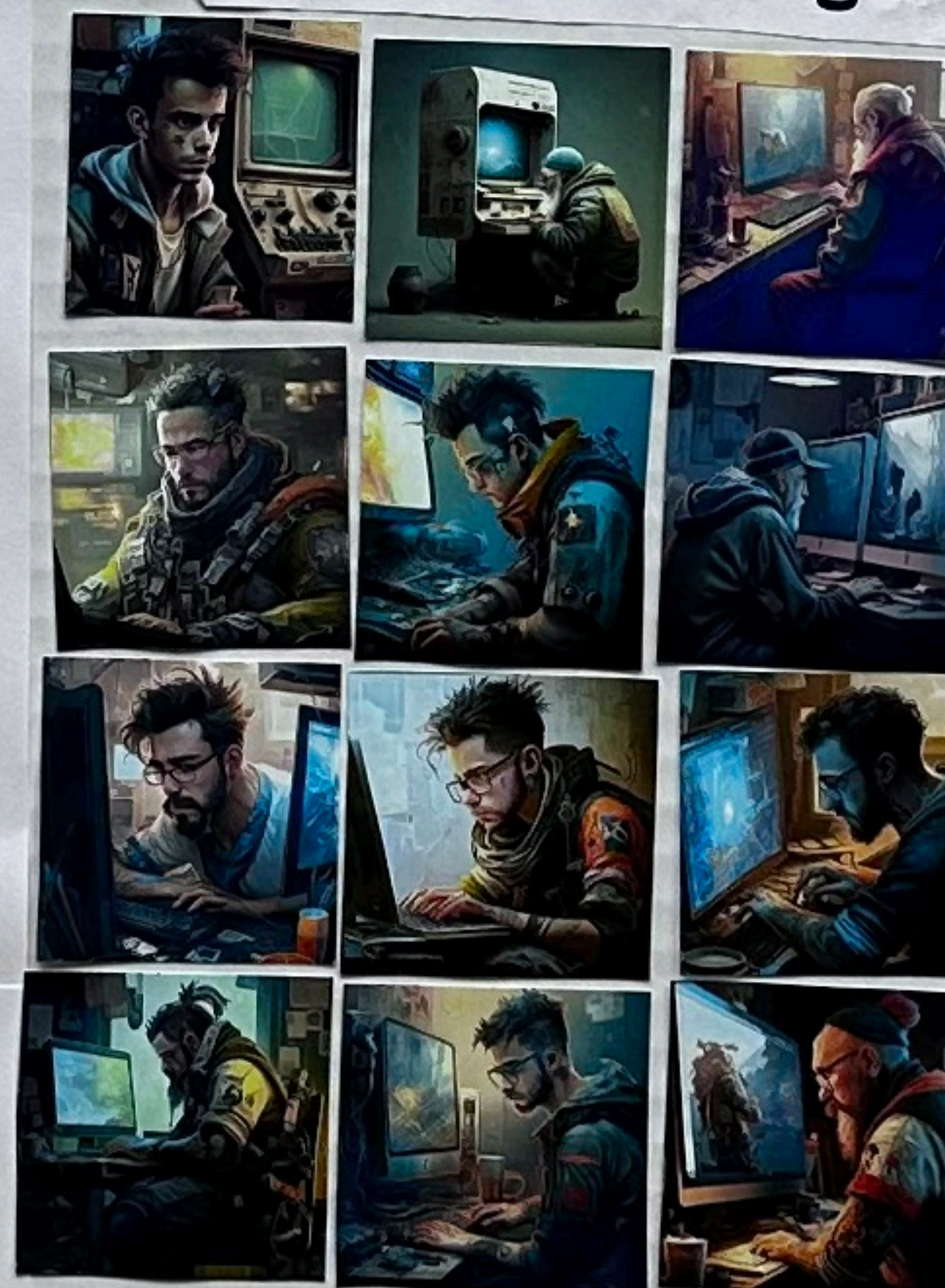
## Data from Experiment



Medical Doctor



Video Game Designer



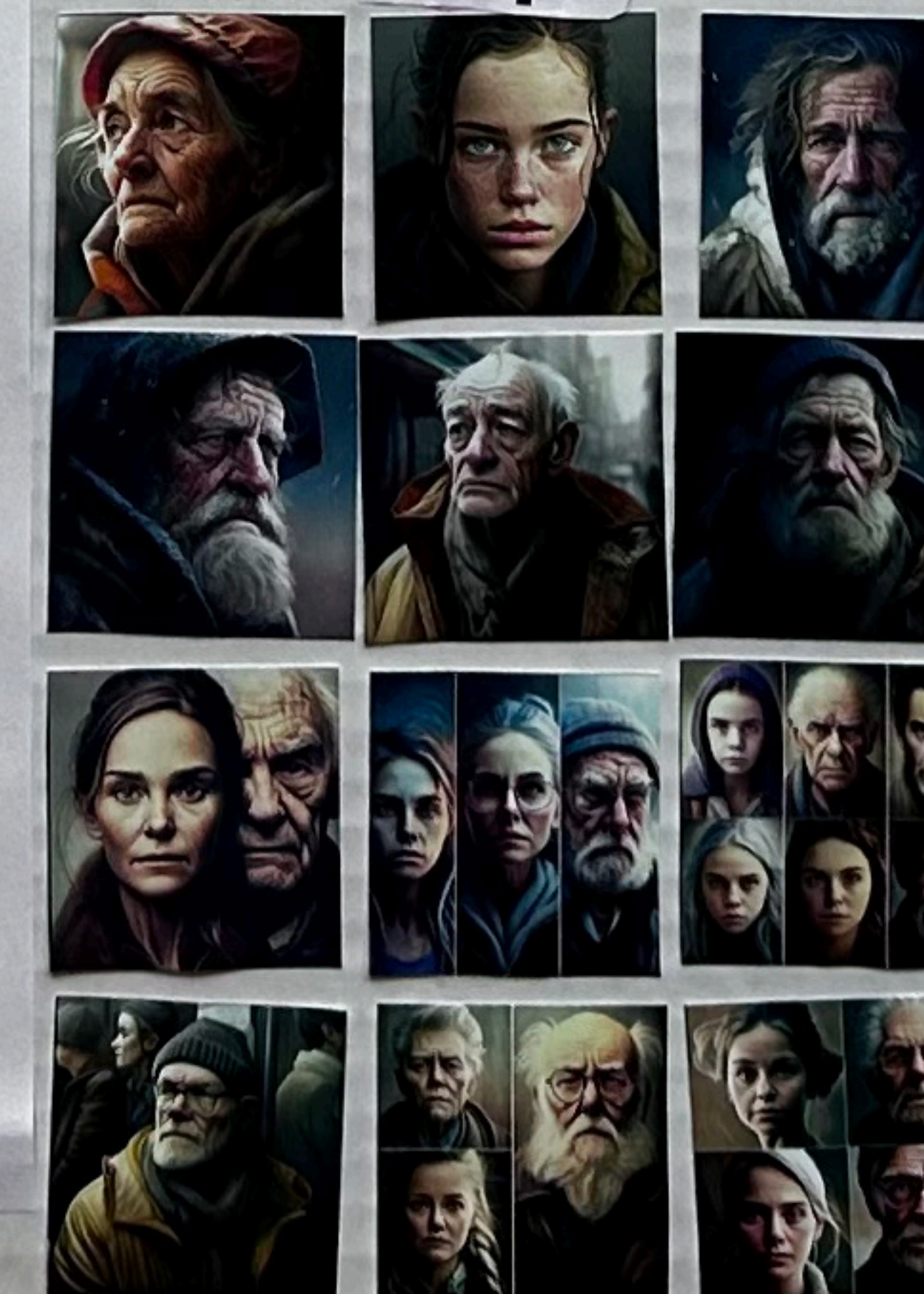
Robotics Engineer



Teacher



People



## Analysis

There are many types of accuracy. The AI got some professions correct and some not.

- "People" (no profession) was my control. They were mostly correct, though tended to be older.
- Doctors were accurate in that they were wearing stethoscopes and white coats and

were human. However, all of them were male so it was not accurate.

- Paleontologists were mostly wrong, many were dinosaurs digging up people. All of them were also male, so they were inaccurate.
- Video game designers were all people, a mix of ages, but lacked females. All of the images also had people with tattoos.
- Teachers were dated because they were using chalk and chalkboards. Most of the

teachers were old, unlike real life where we have teachers of all ages. Also, almost all of them were male, so teachers were depicted incorrectly.

- Robotics engineers were strange - most were not human at all, they were machines. Some were cyborgs.

## Conclusion

The AI gets simpler things – like "people" – mostly correct, but gets harder things like "professions" half-correct or worse. Some professions seem to confuse the AI, like Paleontologist or Robotics Engineer - the AI confused their work with the person doing it.

Paleontologist

