Emerging Trends Research

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# Problem/Opportunity

Artificial intelligence is starting to play a big role in our lives, becoming more and more integrated in society with each passing day, this integration of the AI goes from simple cleaning robots all the way to extremely complicated surgery robots. Slowly but surely, robots will take over most jobs.

We still do not know if this is a bad or good thing for humanity, but one thing we know for sure, AI does not discriminate or hold grudges (unless programmed to).

Because AI does not discriminate it makes it perfect for jobs where humans would discriminate. For example, online curation on websites like Facebook, Twitch, Twitter, etc.

# Research Questions

**Main Question:**

* How can AI be used to moderate and curate online media without holding grudges/discriminating against users?

**Sub Questions:**

* What is Artificial Intelligence (AI)?
* What can AI do that can help us?
* How to replace human jobs with AI?
* Why can the AI be “racist”?

# Research Methods

1. **What is Artificial Intelligence (AI)?**

* Literature Study
* Community Research

How: For this question, I will look up definitions and examples of existing AI. (45 mins.)

1. **What can AI do that can help us?**

* Literature Study
* Observation
* Community Research

How: For this question, I will read papers and articles alongside gathering opinions and examples from the AI community. (120 mins.)

1. **How to replace human jobs with AI?**

* Literature Studying
* Community Research
* Available Product Analysis

How: For this question, I will look at examples of instances where AI has taken over human jobs and the pros and cons of that action (120 mins.)

1. **Why can the AI be “racist”?**

* Available Product Analysis
* Observation
* Literature Studying

How: For this question, I will look at and discuss examples of AI misbehaving in forms that have caused an online uproar. (180 mins.)

**ETA: 10 hours**

Time may vary depending on available information and findings.

# Expectations

In this report we will take a look at one of the many examples of AI use in our society. We will also look at how AI has been used in the online media in the past.

While a definitive correct answer cannot be given on this topic, as it touches a lot of gray area and it is morally questionable, I hope that the reader will get a better understating of the topic and come to his own conclusion on this matter, no matter if different than mine.

# What is Artificial Intelligence (AI)?

The broadest definition of AI would be, as provided by [Wikipedia](https://en.wikipedia.org/wiki/Artificial_intelligence), intelligence demonstrated by machines, as opposed to the natural intelligence displayed by animals including humans.

AI research has been defined as the field of study of intelligent agents, which refers to any system that perceives its environment and takes actions that maximize its chance of achieving its goals.

In the past, the term AI has been used to describe machines that mimic and display “human” cognitive skills that are associated with the human mind. This definition has since been rejected by the majority of AI research who now describe AI in terms of rationality and acting rationally.

AI, as defined by [The Encyclopedia Britannica](https://www.britannica.com/technology/artificial-intelligence), is the ability of a digital computer or computer controlled robot to perform tasks commonly associated with intelligent beings. These classify into the following:

Learning, **Reasoning**, Problem solving, **Perception** and **Language**

There are many definitions of AI, and they all refer to nearly the same concept, slightly twisted by words.

# What can AI do that can help us?

Simple AI has been around since the 1950s, and with each year it advances at an alarming rate.

The main use of AI is to aid humanity in many fields, and here we will discuss about that.

The widest use of AI is in the **manufacturing industry**, and it is also the industry which it helped the most. Not only that, but due to the constant race between manufacturing companies, it also produces growth in the general AI field due to competition.

AI has been used in the manufacturing industry in order to stop humans from doing dangerous and/or repetitive tasks, to increase efficiency, and to decrease waste. The industry is also willingly making the move to AI powered factories, or what they call Industry 4.0.

The numbers presented in the [**Annual Manufacturing Report 2020**](https://www.pwc.co.uk/industries/assets/2020-annual-manufacturing-report.pdf) **(UK data)** showcase that a staggering 87% of manufacturers think it is necessary to move to Smart Factories to remain in the industry. 89% of manufacturers believe that Smart Factories will improve their supply chain relationships, and the most important – 91% of all manufacturers said that Smart Factories have increased their productivity per headcount.

AI has also seen an alarming growth in other sectors, such as healthcare, education, finance, and military, and according to a survey done by Gartner to over 3000 Chief Information Officers (CIOs) from different sectors, 37% responded that they have already deployed some form of AI technology.

# How to replace human jobs with AI?

This is a very though question to answer, as it is very morally questionable.

Let us start with the main problem, AI is taking over jobs from humans, slowly but surely.

In an interview of Bill Gates in 2017, he mentioned that by 2025 he estimates that 38% of US jobs will be replaces by AI. The future is actually looking more grim than his predictions, as of 2022 (according to [**Zippia**](https://www.zippia.com/advice/automation-and-job-loss-statistics/)) 19% of US jobs have been lost due to automation, and 25% of jobs are highly susceptible to automatization. Not only that, but estimates show that at least 50% of the jobs below a bachelor’s degree could be automated using existing technology.

With the bad news, good news also come. According to [**The Future of Jobs Report 2020**](https://www.weforum.org/reports/the-future-of-jobs-report-2020), AI will take away an estimated 85 million jobs from the market, however it will also produce an estimated 97 million new jobs. These new jobs do however require more advanced education and better knowledge in the field, as described in the article [**AI Will Create 97 Million Jobs, But Workers Don’t Have The Skills Required (Yet)**](AI%20Will%20Create%2097%20Million%20Jobs,%20But%20Workers%20Don’t%20Have%20The%20Skills%20Required%20(Yet)), by Emma Ascott – based on The Future of Jobs Report 2020.

It seems like in the long run, AI will be beneficial to most of our society, but what about people who do not have the skills or knowledge required to qualify for the “new” 97 million jobs?

I am not here to argue over the morality of the job replacements, but according to **The Future of Jobs Report 2020,** a view with which I agree, the best way to replace human jobs with AI would be a slow and gradual shift, in order to make sure that not too many people are unemployed at once.

# Why can the AI be “racist”?

Many instances of AI that have been shown to the public show signs of racism, homophobia, xenophobia, etc.

AI “racism” was first brought into mainstream media due to an error in the Google Photos application, which mistakenly tagged two African-Americans as gorillas through facial recognition software in 2015 ([Article](https://www.forbes.com/sites/mzhang/2015/07/01/google-photos-tags-two-african-americans-as-gorillas-through-facial-recognition-software/?sh=5a1ecac4713d)), and while at that time the error was due to the limited data set of the AI, and a badly lit picture, it started the “racist” AI trend.

In the following years, many AIs have showcased instances of racism, homophobia, and xenophobia, the most popular being Tay AI, which is a chatbot AI from Microsoft which was released on Twitter in 2016.

Tay was trained on already existing conversations and conversations that she had while online. Malicious users started inputting hateful data into her dataset and in less than 24 hours from launch, she became extremely racist and sexist.

Tay quickly make her way into the mainstream media, and the biggest news outlets wrote stories about her, such as [this one by The Verge](https://www.theverge.com/2016/3/24/11297050/tay-microsoft-chatbot-racist).  
  
Recently, there have been measures taken by big companies, such as Microsoft and Google, in order to combat these undesired outcomes, but these are not perfect.   
YouTube has had an anti-hatespeech algorithm in training since 2016, and when it was finally introduced in 2020, the channel of [Anotnio Radic](https://en.wikipedia.org/wiki/Agadmator), a professional chess player, was terminated during a chess show due to him reffering to chess as “black versus white”.

While I will not go into detail, there are many more instances of “racist”/sexist/homophobic AI, such as:

* [Facial recognition fails on race, government study says](Facial%20recognition%20fails%20on%20race,%20government%20study%20says)
* [Amazon scraps secret AI recruiting tool that showed bias against women](https://www.reuters.com/article/us-amazon-com-jobs-automation-insight-idUSKCN1MK08G)
* <https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm>

From the data gathered so far, and the many other examples I did not list, it can be concluded that an AI can be “racist” because the data it has been trained on also contains racist examples. In the end it is human bias that makes the AI biased.

# Conclusion

Back to our original question, the questions answered so far provided insight into a few of the advantages, problems, and past failures of AI. While this is only a droplet of information on the subject, I think that it can help the reader form a basic opinion about the topic.

As proven in many industries with repetitive tasks, AI can help raise the efficiency in online media curation such a YouTube, Forums, etc., however it will also take away a lot of jobs from people already working in the industry.

As seen in the past, it is also very hard to create an AI that would not be biased due to the unavailability on unbiased training data, so as of now it is not feasible to create an AI that will not discriminate to some degree

To draw a conclusion, how can AI be used to moderate and curate online media without holding grudges/discriminating against users?

AI can be used to moderate and curate online media without holding grudged/discriminating by training it on an unbiased dataset, not only is the dataset important, but the implementation of the AI also has to take into the account the jobs it has displaces.