Collab Discussion 2

Initial post

Initial Post

by Sahr Solar Sumana - Tuesday, 14 May 2024, 1:28 PM

AI writers are becoming a larger part of the modern day society at a rapid pace with GPT-4o being released just a few days ago. Hutson (2021) highlighted that these writers could provide users with a variety of benefits for everyday tasks including summarising legal documents, suggesting answers to customer-service enquiries and proposing computer code. Examples like this show and prove that mundane tasks that otherwise consume valuable time can be automated and eventually be made redundant. Although this sounds like a massive benefit, some warn that this could have detrimental effects on the wider economy with one example being that there may be more of a demand for workers with certain skills while rendering others redundant, which could have far reaching consequences for the labour market (Szczepanski, 2019).

Touching on the subject of English literature and language, AI writers especially GPT-3 excelled on many tests of language generation, including trivia, reading comprehension, translation, unscrambling sentences and completing a story (Hutson, 2021). With these leaps and bounds that AI writers have taken, benefits to creative writing have also been produced; there is now increased accessibility and assistance to those who may not speak the native language or have difficulty understanding, such as people with dyslexia. This can open doors for those who are at a disadvantage when the factor is a language barrier, allowing individuals to have the access to these tools could provide innovation and allow people to contribute with different perspectives in industries that they could previously not access without the help of AI. Before heavily relying on these systems it could be argued that there needs to be a deeper understanding on how AI and deep learning function. Castelvecchi (2016) has questioned how far should people be willing to trust deep learning and if we can be sure if the AI being used is right?

Reference List:

Castelvecchi, D. (2016). Can we open the black box of AI? *Nature*, [online] 538(7623), pp.20–23. doi:https://doi.org/10.1038/538020a.

Hutson, M. (2021). Robo-writers: the rise and risks of language-generating AI. *Nature*, [online] 591(7848), pp.22–25. doi:https://doi.org/10.1038/d41586-021-00530-0.

Szczepanski, M. (2019). Economic impacts of artificial intelligence (AI). *policycommons.net*. [online] Available at: https://policycommons.net/artifacts/1334867/economic-impacts-of-artificial-intelligence-ai/1940719/.

Peer Responses

Re: Initial Post

by Alex Mutebe - Tuesday, 21 May 2024, 7:35 AM

In his opening paragraph, Sahr alludes to how AI could affect the labour market by reducing the need for specific skills. According to Jumaev (2024), in order to circumvent shortcomings in this particular context, adaptation through continuous learning, networking, and upskilling is required. People may seize new opportunities, position themselves towards success in the AI era, and effectively contribute to the evolving nature of work.

In regards to Castelvecchi (2016) concerns about deep learning models, in my opinion AI users need protection from adverse AI tools. Government laws and international legislation must be strict in order to control the advancements in AI (Paterson et al., 2021; ACM, 2018).

Sahr, based on the GPT-4o case study, do you believe that future AI innovation regulation will be attainable, given its exponential growth?

References:

Jumaev, G., 2024. The Impact of AI on Job Market: Adapting to the Future of Work. Modern Science and Research, 3(1).

ACM (2018). ACM Code of Ethics and Professional Conduct. [online] Association for Computing Machinery. Available from: https://www.acm.org/code-of-ethics.

Paterson, J.M. and Maker, Y., 2021. AI in the Home: Artificial Intelligence and Consumer Protection. The Cambridge Handbook of Private Law and Artificial Intelligence (Cambridge University Press, Forthcoming).

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Re: Initial Post

by Christopher Butterworth - Friday, 31 May 2024, 7:26 PM

In his initial post (Sumana, 2024), Sahr Solar Sumana makes reference to the Nature paper about robo-writers (Hutson, 2021). He states that they will change the way office work is done and lists ways in which this technology can help us, such as producing briefs for lawyers, driving chat bots for websites to perform technical support services etc., and even generating code for applications or websites. He goes on to point out that the technology also has drawbacks, manly that it will put many people out of a job, which is the theme of an article he cited on the economic effects of this technology (Szczepanski, 2019).

Sahr is less pessimistic about the use of AI writers in creative situations such as helping students understand set texts, multi-lingual studying, rewriting in improved style, completion of work from sketches etc. (Hutson, 2021). I think this sentiment is echoed by Chris Caren of Turnitin™, who sees AI as an "intermediary tool that may even facilitate deeper intellectual inquiry" (Demetriou, 2023). Clearly, there will be enormous benefits for people of different nationality, who have until now been locked out of any course that is exclusively in English, and perhaps one day that stipulation can be dropped for courses such as this one.

References

Demetriou, N. (2023) Benefits and Drawbacks of AI for Writing. Available from: https://www.icslearn.co.uk/blog/career-development/benefits-and-drawbacks-of-ai-for-writing/ [Accessed 31 May 2024]

Hutson, M. (2021) Robo-writers: the rise and risks of language-generating AI. *Nature* (591): 22-25. DOI: doi.org/10.1038/d41586-021-00530-0

Sumana, S.S. (2024) Initial Post on the benefits and risks of AI writers. Available from: https://www.my-course.co.uk/mod/forum/discuss.php?d=230819 [Accessed 31 May 2024]

Szczepanski, M. (2019). Economic impacts of artificial intelligence (AI). Available from: policycommons.net/artifacts/1334867/economic-impacts-of-artificial-intelligence-ai/1940719/ [Accessed 31 May 2024]

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Summary Post

Summary Post

by Sahr Solar Sumana - Sunday, 2 June 2024, 8:45 PM

My initial post outlined how AI writers have become a larger part of modern-day society and are likely to become the norm. Where I describe that robo-writers could provide users with a variety of benefits for everyday tasks including summarising legal documents, suggesting answers to customer-service enquiries and proposing computer code (Hutson, 2021).

Butterworth (2024) examined that I was less pessimistic about AI writers in creative situations such as helping students understand set texts and multi-lingual style, where there is also the additional benefit of increased accessibility to those who do not understand English and wish to enrol in an English course. Whereas I also received a very good counter argument from Mutebe (2024) questioning if AI users needed more protection from adverse AI tools. And questioned if AI innovation regulation will be attainable given its exponential growth.

I believe that the best way to regulate AI is to invest and understand it more before it's too late. We can see that the UK government are allocating resources to understand the threat that AI could pose such as chatbots making false information more prominent or highly capable AI system being misused to enable crime. For instance, a model designed for drug discovery could potentially be accessed maliciously to create harmful compounds (GOV.UK, n.d.). In this case and in many cases, we have seen in past with unknown entities and innovations the best step to take forward is to understand the unknown, once this understanding has been grasped then people can look into nullifying threats associated with AI. The European Parliament (2023) have already placed a framework for regulating AI where they wish for AI systems to be transparent traceable, non-discriminatory and environmentally friendly. AI systems should be overseen by people, rather than by automation, to prevent harmful outcomes. A foundation that seems to be a good starting point for the regulation of AI. With further research and evaluation this can then be built upon.

Reference List:

Butterworth, C. (2024). *Peer Response*. [online] Collaborative Discussion 2: Legal and Ethical views on ANN applications. Available at: https://www.my-course.co.uk/mod/forum/discuss.php?d=230819 [Accessed 2 Jun. 2024].

European Parliament (2023). *EU AI Act: first regulation on artificial intelligence*. [online] European Parliament. Available at: https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence.

GOV.UK. (n.d.). *A pro-innovation approach to AI regulation: government response*. [online] Available at: https://www.gov.uk/government/consultations/ai-regulation-a-pro-innovation-approach-policy-proposals/outcome/a-pro-innovation-approach-to-ai-regulation-government-response#a-regulatory-framework-to-keep-pace-with-a-rapidly-advancing-technology.

Hutson, M. (2021). Robo-writers: the rise and risks of language-generating AI. *Nature*, [online] 591(7848), pp.22–25. doi:https://doi.org/10.1038/d41586-021-00530-0.

Mutebe, A. (2024). *Peer Response*. [online] Collaborative Discussion 2: Legal and Ethical views on ANN applications. Available at: https://www.my-course.co.uk/mod/forum/discuss.php?d=230819 [Accessed 2 Jun. 2024].

My peer response to Alex Mutebe (2024)

Peer Response

by Sahr Solar Sumana - Sunday, 2 June 2024, 7:02 PM

Alex has read the Hutson article on robo-writers where OpenAI's GPT-3 has been described as a cutting-edge AI writer that provides significant advantages in terms of productivity, innovation, and personalized learning (Hutson, 2021). With the advantages to GPT-3 also being listed such as it being a valuable asset to both creative tasks and office tasks. Despite these advantages there can be some costly limitations to the AI writers which could prove to be a breach in ethics and reliability (Mutebe, 2024).

A way to further build on the initial post could be for Alex to look at solutions both current and potential future ones that could help limit the hallucinations that AI can sometimes encounter. One an example being the implementation of reinforcement learning where an AI system receives a reward if the desired action is completed thus changing the environment (Matsuo et al., 2022). This could further extend the discussion as there are undoubtedly some limitations to reinforcement learning too.

I like how Alex has touched on AI models being trained which can lead to biased being reflected within them, so more evaluation will need to be executed on these AI systems to make them more complete for creative, academic and professional tasks.

Reference List:

Hutson, M. (2021). Robo-writers: the rise and risks of language-generating AI. *Nature*, [online] 591(7848), pp.22–25. doi:https://doi.org/10.1038/d41586-021-00530-0.

Matsuo, Y., LeCun, Y., Sahani, M., Precup, D., Silver, D., Sugiyama, M., Uchibe, E. and Morimoto, J. (2022). Deep learning, reinforcement learning, and world models. *Neural Networks*. doi:https://doi.org/10.1016/j.neunet.2022.03.037.

Mutebe, A. (2024). *Peer Response*. [online] Collaborative Discussion 1: The 4th Industrial Revolution. Available at: https://www.my-course.co.uk/mod/forum/discuss.ph

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My peer response to Chris Butterworth (2024)

Peer Response

by Sahr Solar Sumana - Sunday, 2 June 2024, 4:50 PM

After reading Christopher's initial post on the effect, the benefits of GPT are heavily outlined with Christopher even touching upon his personal use of GPT, with examples of this including churning out screenfuls of code in different programming languages (Butterworth, 2024). Christopher then goes on to argue that there can be disadvantages to using AI systems, with the echo chamber effect being the primary issue. I agree with Christopher in this case where biases can be developed with AI systems since they are designed from datasets representing human experiences and inevitably inherit cognitive biases from the human mind resulting in systematic errors and flawed judgements (Chan, 2022).

A potential solution in the initial post is also provided where thoroughly reviewing the data ingested by AI systems, a form of reinforcement learning could also be applied, if done correctly the AI system would choose actions and make decisions that maximise future rewards as much as possible, which is a strong framework to achieve high-level intelligence (Matsuo et al., 2022). A limitation to this however could be that the AI system would only operate with its best interests in mind in order to receive a reward. As Butterworth (2024) stated there is concern that the vast amounts of text and other data ingested by these generative AI systems is not being evaluated critically. And a solution needs to be found for the improvement of AI systems.

Reference List:

Butterworth, C. (2024). *Initial Post*. [online] Collaborative Discussion 2: Legal and Ethical views on ANN applications. Available at: https://www.my-course.co.uk/mod/forum/discuss.php?d=230794 [Accessed 2 Jun. 2024].

Chan, J. (2022). The Echo Chamber of Algorithm Bias. *International Journal of Business, Humanities and Technology*, 12(1). doi:https://doi.org/10.30845/ijbht.v12n1p1.

Matsuo, Y., LeCun, Y., Sahani, M., Precup, D., Silver, D., Sugiyama, M., Uchibe, E. and Morimoto, J. (2022). Deep learning, reinforcement learning, and world models. *Neural Networks*. doi:https://doi.org/10.1016/j.neunet.2022.03.037.

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