AI likely to increase energy use and accelerate climate misinformation – report

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Author: Oliver Milman

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Claims that artificial intelligence will help solve the climate crisis are misguided, with the technology instead likely cause rising energy use and turbocharge the spread of climate disinformation, a coalition of environmental groups has warned. Advances in AI have been touted by big tech companies and the United Nations as a way to help ameliorate global heating, via tools that help track deforestation, identify pollution leaks and track extreme weather events. AI is already being used to predict droughts in Africa and to measure changes to melting icebergs. Google, which has developed its own AI program called Bard (recently rebranded to Gemini) and has an AI project to make traffic lights more efficient, has been at the forefront of promoting emissions reductions through AI adoption, releasing a report last year that found AI could cut global emissions by as much as 10%, equivalent to the entire carbon pollution put out by the European Union by 2030. “AI has a really major role in addressing climate change,” said Kate Brandt, Google’s chief sustainability officer, said in December, describing the technology at an “inflection point” in making major progress in environmental goals. However, a new report by green groups has cast doubt over whether the AI revolution will have a positive impact upon the climate crisis, warning that the technology will spur growing energy use from data centers and the proliferation of falsehoods about climate science. “We seem to be hearing all the time that AI can save the planet, but we shouldn’t be believing this hype,” said Michael Khoo, climate disinformation program director at Friends of the Earth, which is part of the Climate Action against Disinformation coalition that put out the report. “It’s not like AI is ridding us of the internal combustion engine. People will be outraged to see how much more energy is being consumed by AI in the coming years, as well as how it will flood the zone with disinformation about climate change.” The burgeoning electricity demands of AI means that a doubling of data centers to help keep pace with the industry will cause an 80% increase in planet-heating emissions, even if there are measures to improve the energy efficiency of these centers, the new report states. In the US, there is already evidence that the life of coal-fired power plants is being prolonged to meet the rising energy demands of AI. In just three years from now, AI servers could be consuming as much energy as Sweden does, separate research has found. Much of this increased energy demand comes from the added complexity of AI operations – generating AI queries could require as much as 10 times the computing power as a regular online search. Training ChatGPT, the OpenAI system, can use as much energy as 120 US households over the course of a year, the report claims. “There is no basis to believe AI’s presence will reduce energy use, all the evidence indicates it will massively increase energy use due to all the new data centers,” said Khoo. “We know there will be small gains in efficiency in data centers, but the simple math is that carbon emissions will go up.” AI will further hinder efforts to constrain the climate emergency by providing an easier way for people or organizations to disseminate false or misleading statements about

climate science and the impacts of rising global temperatures, the coalition's report adds. This will worsen a situation whereby major social media platforms, such as Twitter/X, have already become a hotbed of climate science denial, the AI critics say. "We can see AI fracturing the information ecosystem just as we need it to pull it back together," Khoo said. "AI is perfect for flooding the zone for quick, cheaply produced crap. You can easily see how it will be a tool for climate disinformation. We will see people micro-targeted with climate disinformation content in a sort of relentless way." There should be better transparency about AI energy use, the report states, as well as safeguards that monitor the output of climate falsehoods. Jesse Dodge, senior research scientist at the at the Allen Institute for AI, said that he shared concerns that AI will be used to "accelerate" climate misinformation, through methods such as deepfake videos and pictures, as well adding to carbon emissions through increased energy use. "Overall, this is a concern," he said. "The application of the AI itself, though, can be potentially more impactful than its electricity or water consumption. AI is an accelerant, it lets you do something faster, so it could help you extract oil more quickly, but on the other hand we have six teams using AI to mitigate the harm of climate change. "One does climate modeling, another tracks illegal fishing and endangered species, there's the monitoring and predicting of wildfires. We believe there's an overall net benefit there, that there's a worthwhile trade-off." Dodge said that he was "cautiously optimistic" that AI will have a largely favorable impact upon the climate crisis, but that companies needed to be fully transparent and open about their energy use.