

Generative AI: how will the new era of machine learning affect your business?

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Panel

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GENERATIVE AI : HOW WILL THE NEW ERA OF MACHINE LEARNING IMPACT YOUR BUSINESS?



In the latest FT Board Network event, Madhumita Murgia, the FT artificial intelligence editor, spoke to Marc Warner, the co-founder of Faculty, an AI consultancy, about how business will be affected by generative AI.

The conversation took place almost a year after the launch of the ChatGPT chatbot and on the eve of the UK summit on <u>Al safety</u>, which is taking place on November 1 and 2 at Bletchley Park, the second world war code-breaking centre near Milton Keynes.

Murgia and Warner discussed topics including how companies use generative AI tools, the challenges they face and the regulations being developed.

Why are we talking about generative AI now?

Warner said generative AI, in the sense of deep learning, was not new. He said deepfake videos – including one featuring "<u>Donald Trump</u>", which was developed by Faculty to show the dangers of the new technology – have been circulating since 2019.

The latest interest has been sparked by the emergence of large language AI models, usually known as LLMs, whose "level of performance has enabled them to become a consumer phenomenon". ChatGPT was among the first of these but is now one of many examples.

Generative AI tools represented a "huge unlock" for companies, Warner said. Previously businesses could gain insights from numerical data but they can now do the same with masses of text data.

He said the new tools would benefit in particular "bigger organisations that sit on enormous amounts of text data which so far they have been unable to use". They can now mine that data for fresh insights, including how to reorganise their companies and best serve customers.

How AI can help business: two examples

Software developers had reported a bump in how fast they can develop new products without any drop in quality, Warner said. Software companies have experienced an average speed increase of 10 to 15 per cent.

Turning to the legal profession, he cited one company which he described as "the Uber for lawyers": its thousands of legally skilled staff are contractors for hire. When a client seeks help, the company "digs into this bag of lawyers and finds the deep experts".

Generative AI makes this selection quicker and more effective. The searches also tend to be more diverse since the process reduces the effect of unconscious bias.

Why generative AI doesn't threaten workers

Warner was at pains to stress that AI is unlikely to lead to the mass disruption of the labour market. The new tools will "augment" the capacity of people to do their jobs, not replace them, he said. "A job is a bucket of tasks," he said. "While some of those tasks can be automated or augmented, many of them can't".

Basic administrative tasks – "grunt work" – could be handed to machines but more complex tasks will still need people, Warner said. He added: "AI is not human-level general intelligence. Maybe it will get there at some point, but maybe it won't."

In the case of the law firm, he said the AI tools produced good options for people but did not make the final decision. "The best decision is going to be made by people and machines working together," he said.

The labour market will evolve further. Warner said that "jobs disappear and grow and change constantly, millions and millions of jobs a year". The "crucial element is how fast that change happens".

He explained: "If it happens incredibly fast, that's very disorientating for society and has very bad consequences." That said, Warner does not think generative AI will have an overnight effect.

Generative AI could spark a boom in learning

Until now there has been concern that generative AI tools could impinge on education and damage young people's prospects. Teachers and academics also worry that students are using ChatGPT to write essays.

Warner said such fears were overblown. "I have no concerns that our educational levels are going to drop," he said, adding that the new tools are more likely to be a kind of "personal tutor".

Warner, a physicist, said the geniuses of the early 20th century often came from wealthy families and benefited from one to one teaching by personal tutors. He said AI tools would give those opportunities to more people. He predicted that the idea of AI as personal tutor would enjoy "a phenomenal boom".

What's next in the generative AI revolution?

Today's generative AI tools draw insights from unstructured data: notes, recordings, speeches and articles. Soon though they will be able to analyse images and turn their insights into text.

Companies can already analyse images using traditional machine-learning methods. Warner pointed to Tractable, a UK company, as a business that offers this service. What is now under development is the ability to turn the analysis into cogent text," he said. "That's the novel capability."

Watch for snake-oil salesmen

In the excitement over generative AI, companies should beware of people "who jump on the bandwagon". Warner is increasingly aware of people who were "crypto experts 18 months ago and are AI experts today". He warned companies that such people are likely to "over-promise and over-hype".

How to protect people while preserving innovation

The speed with which generative AI tools have been taken up has alarmed many observers. Murgia said that "even those building the new tools constantly surprise themselves about how powerful it is". Such unexpected capabilities, "emergent properties" to use the jargon, have prompted seasoned AI pioneers to call for a pause in development. It is also agreed that the technology should be regulated – but how?

The EU is poised to introduce the world's first comprehensive AI law in the next few months. It recognises that AI has benefits including "better healthcare, safer and cleaner transport, more efficient manufacturing and cheaper and more sustainable energy". At the same time the EU wants regulation to "analyse and classify" the new tools "according to the risk they pose to users".

Warner said it was important to "maximise the good and minimise the downside" just as we do with cars. He said that while motor vehicles helped us to stay connected and explore our world, they also led to many deaths and injuries.

He pointed to the downsides of overweening regulation: the slowing of innovation and its over-dominance in the development of the industry. He said policymakers "should favour sensible domain-specific regulation".

"In medicine there should be some reasonably high barriers," Warner said. "By contrast, in retail, if you are choosing whether to put a red jumper or a blue jumper at the top of your website, there should be relatively low barriers."

Questions from the audience

Can we trust the output from large language models?

Warner said that companies "shouldn't be using an LLM as a kind of black box to make complex decisions". Instead they should be considered as part of what he called "safe, connected, human-first systems". He suggested some questions that companies should ask when they use generative AI tools. These include: How do we frame the problem; how do we create the technical solution, and how do we add safety elements such as algorithms that check for fairness.

What's the difference between natural language processing and generative AI?

"Natural language processing is the processing of natural language as opposed to computer code, which is a kind of artificial language," Warner said. He added that the goal of the pioneers in generative AI is to make it possible for "humans to speak to computers naturally, by typing or speech, and have them understand what they are being told".

Do ethics and bias play a role in generative AI?

Warner said: "If you're not careful, if you use the tools in a bad way – you don't choose the problem carefully, you don't make them safe – you can end up accidentally building in whatever the ethics are of the data that it is trained on."

What is most important is how people use the technology.