

INTERVIEW

SHAPING THE FUTURE WITH GENERATIVE AI

Lukasz Szpruch, programme director for finance
and economics at The Alan Turing Institute



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There's no doubt that generative AI has gone mainstream; a cursory glance at recent – often sensationalist – headlines is all it takes to confirm that fact. But despite all the recent excitement caused by the likes of ChatGPT, the true experts in the field have been aware of generative AI's power for quite some time. In fact, they have spent years – away from the glare of the media – working to find practical ways to harness the technology's potential.

Many of these future-shaping thought leaders will be gathering for the Generative AI Summit on 16 and 17 May at the Hilton Syon Park in London.

Among the specialists sharing their insights and expertise on the diverse applications of machine learning will be Lukasz Szpruch, programme director for finance and economics at The Alan Turing Institute. He will be leading a session on how generative AI can enhance quality, reduce bias and protect privacy through the leveraging of synthetic data.

According to Szpruch, generative AI is already all around us, regardless of public perceptions of relatively recent breakthroughs and limited usage.

“We don't always think about this, and recently I became aware of everyone getting very excited about large language models like ChatGPT 3 – because anybody can use it and play with it now – but these kinds of ideas have been around for quite a while, being used for multiple applications,” he explains.

One of those applications is the mitigation of privacy issues through the creation and use of synthetic data. And as his upcoming session at the Generative AI Summit suggests, it's an area in which Szpruch has extensive experience. He has first-hand knowledge of how synthetic data is helping to spur innovation and circumvent barriers to technological development.

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Lukasz Szpruch

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Szpruch explains the nature of some of those obstacles: “We want to innovate, we want to make data-driven decisions, build-data driven models – but you can’t do that without data.

“Data is often siloed and that slows down innovation hugely. Bottlenecks are created where only a very small number of people have access to the data and there are also challenges around things like anti-money laundering regulation, where banks are not able to easily share information and data, making the whole process of chasing criminals difficult.”

But this is where generative AI comes to the rescue. The technology enables the production of synthetic data that has a sufficient degree of similarity to the original data but at the same time comes with privacy guarantees.

“It’s not the resolution to the privacy problem and it’s not a replacement of the original data but it can hugely accelerate the development of the data-driven projects,” Szpruch says.

The use of synthetic data also helps to resolve a common chicken-and-egg situation with third-party vendors, he explains. “They will say, ‘We have this amazing technology, and if you allow us to work and analyze your data then we will give you those insights, but we cannot quite tell you what those insights are going to be because we haven’t seen your data.’ Being able to mitigate that is very powerful.”

But the power of synthetic data doesn’t end there; many successfully deployed technologies, such as the AlphaGo game program, have been driven by its innovation-enabling potential, says Szpruch.

“We are designing complex algorithmic systems and in order for them to be trustworthy, reliable and robust, we need to understand when they perform well and when they don’t. Ideally, we want them to perform with

some guarantees that go beyond the data events that we’re aware of from the past.”

In order to enable this, synthetic data can be used to bootstrap available information to produce plausible future scenarios, ensuring systems are robust and safe to use.

“When we work on machine learning for AI, first there is the development phase, and then there is the testing phase where researchers may try out the technology on the data they haven’t used for training, just to make sure it’s reliable,” Szpruch explains. “The simulations of generative AI allow the test to go beyond the data we currently have.

“This is an absolutely critical step,” he adds. “It’s not as well documented as some of generative AI’s other uses – but it’s already happening.”

Find out more of the lesser-known but groundbreaking applications of the technology at the Generative AI summit.



GENERATIVE AI SUMMIT



15 – 17 May 2023 | Hilton Syon Park, London

The First Event to Join Business Communities to Discuss How Generative AI is Being Used for Enterprise Transformation

The potential of Generative AI is driving an unprecedented level of investment and excitement. Companies around the world are investing in the technology, and innovators are exploring a wide range of potential use cases.

At the same time, concerns have been raised about the accuracy of output or 'hallucinations', copyright, fraud and the role of humans in an increasingly AI centric world.

With that in mind, the Generative AI Summit 2023 has been developed to bring the community together to discuss the use cases for the technology, its current limitations, and how to navigate the changes it will generate.

The audience will be cross industry and bring together business leaders from AI, Machine Learning, Data, Innovation and Technology to discuss potential applications.

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