Sep 17, 2020, 01:00pm EDT | 981 views

Don’t Blame The Algorithm, Trust It

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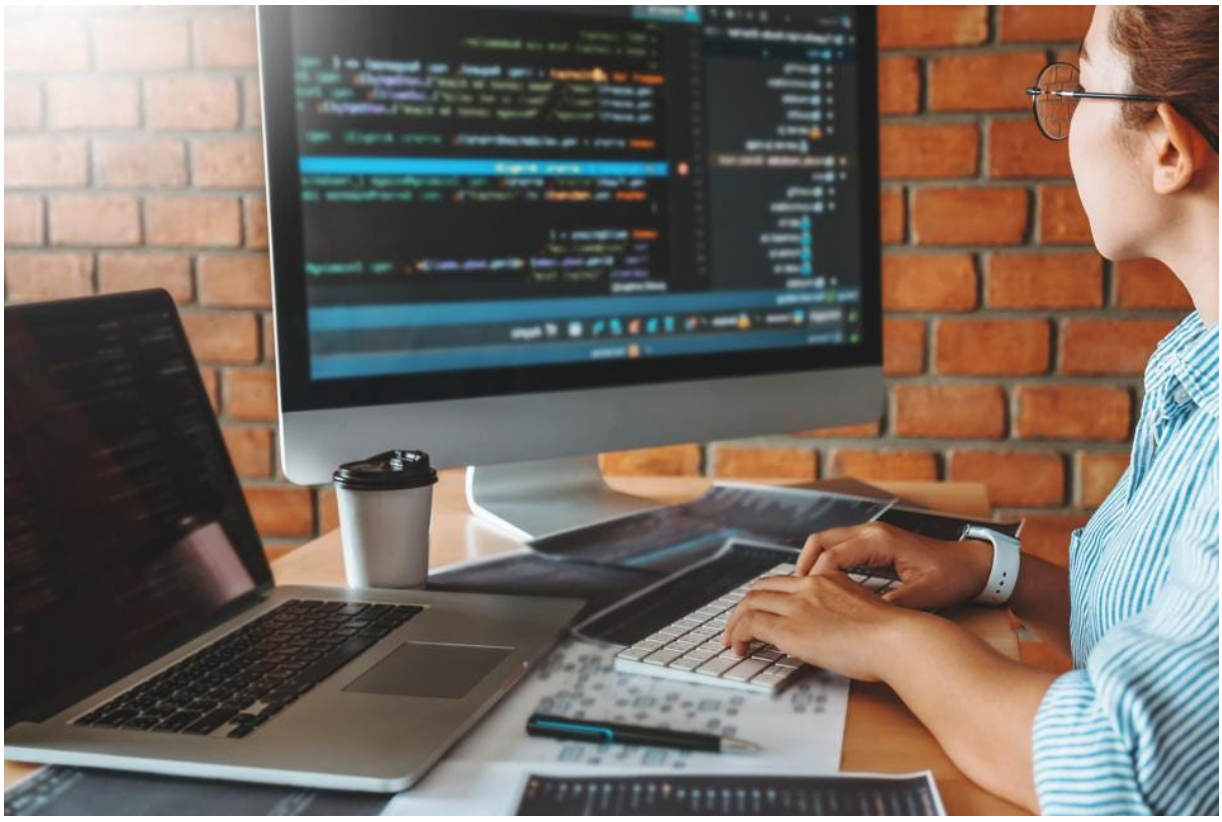

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One of the strangest stories to emerge during the pandemic was following the U.K. GCSE and A Level exam results fiasco when it was reported that Prime Minister Boris Johnson told Leicestershire students that they had received lower grades than had been predicted due to a "mutant algorithm". While many parents and teachers

were horrified by the PM's nonchalant response to exams regulator Ofqual's failure after Covid-19 caused the closure of schools and the cancellation of exams, I wondered what the perception of the algorithm - 'mutant' or otherwise - now was.

Speaking to technology professionals over the years, the message has been clear: trust the algorithm more than the human. However, has that changed in light of now widely reported concerns around the increasing use of algorithms in healthcare and the criminal justice systems? Is the concept of 'intelligent transparency' real? In his piece for Harvard Data Science Review, David Spiegelhalter explores how it is difficult today to not be mesmerized by the mystique of technology, especially when the "media (and politicians) are replete with credulous stories about machine learning and AI."

Later, Spiegelhalter highlights that in this "age of misinformation and loud, competing voices, we all want to be trusted." Referencing Onora O'Neill, he concludes that "organizations should not try to be trusted; rather they should aim to demonstrate trustworthiness, which requires honesty, competence, and reliability." This sentiment is crucial when attempting to understand the validity of algorithms, AI and ML models.

Against the backdrop of the pandemic, as a society we have collectively realised what is important when navigating through what has become the new normal. With respect to AI when considering the financial services industry, it has become even more so important to ensure that organizations hold and have access to high-quality data so that offerings that serve customers' needs are delivered. It is no longer a nice to have.

Alongside this, in the same way that it is critical for the success of business, accurate data without bias can be what determines whether or not someone is granted a loan, and therefore, is of paramount importance today when ensuring people are financially stable and are able to support themselves. A recent Mastercard report 'Doing AI Right: No Trust? No Business' states that "Bad quality data creates bad AI which can make bad decisions and can harm individuals."

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Ajay Bhalla, President of Cyber and Intelligence Solutions, Mastercard adds: "There is a tremendous opportunity with AI. So, it's critical that the AI we are creating, and the AI we are using to manage our technologies, is reliable and trustworthy, which requires things such as good quality data. If not, we're in danger of creating a society without trust." He adds: "Without trust, you can't do business. More so now than perhaps at any other point in history." Mastercard now have R&D Labs and AI resources in five centres around the world and attempt to build trust in AI by constantly testing, adapting and improving algorithms to help us solve real-world challenges.

Only 30 percent of people feel comfortable with businesses using AI to communicate with them and 53 percent believe that AI will always make decisions based on the biases of the person who created the instructions. 12 percent say they believe AI can tell the difference between good and evil, despite having reliance on AI-based platforms such as Google Maps, Twitter and Netflix . This disconnect can be resolved with transparency, which will in turn, ensure trust.

Further to this, global fraud rates have hit a near-20-year high according to the latest PwC figures, with 47 percent of companies reported to have experienced fraud in the last two years. Mastercard reveal that protecting customers and businesses against an explosion in cyber-attacks and fraud has been challenging, especially as one in every three attacks now emulate human behavior. Countering these requires a sophisticated AI to pick out the person from the bot. In addition to this, account creation attacks, where bad actors create fake accounts for subsequent fraudulent use, have increased by 500 percent during the pandemic, compared to the same period in 2019.

AI is the first line of defence and AI tools are not new, but amid Covid-19 many banks and financial services companies decided to accelerate their use of AI, recognizing the impact data quality can have on obtaining actionable insights and decision making for their business, customers and society. Taking a glass-half-full approach, Bhalla says that today, we have access to more data than ever before, have capabilities in 4G and 5G, where financial companies are able to process data at "lightning speeds" and are able to leverage processing power of great magnitude.

Further to this, the coronavirus has "digitised society very quickly and people who would have never thought about using technology have jumped on to it." AI is helping our society manage this difficult period and as Bhalla mentions, has and will continue to open doors for rapid digitisation in the future. However, people have a right to know how their data is being used and therefore, AI should be used in a transparent manner to ensure trust. We are still at the early stages of this journey.

Returning to the point on the evolution of society, it is clear that in some ways, the pandemic has meant that individuals and businesses alike have adapted and realised the benefits that can be reaped from applying or using technologies like AI. Although, I wonder if the quality of data has improved at the same rate. After all, the conversation around 'ethical AI' and how to achieve it is one that is longstanding, but if issues were resolved, would result in trusting users.

Before ensuring data quality, business leaders need to understand their role in shaping AI algorithms, actionable insights and decision-making. While predictability was possible pre-pandemic, the unprecedented times make it difficult for data to be considered reliable.

According to Rumman Chowdhury, Responsible AI Lead at Accenture, data quality and bias are hindrances to the trustworthiness of AI and can lead to a "lost in translation moment". "From a data science perspective, bias is a quantifiable value. All models need a level of bias in order to be generalizable, yet often when non-data scientists talk about bias in AI, they actually mean sexism, racism and so on."

When models are trained, they are imperfect by definition because they are required to be flexible and intuitive. She says: "if you made the perfect system, it would imply we had no free will as human beings. And that's a scary thought."

While algorithms cannot be built to be perfect - and shouldn't be - organizations need to be able to explain to people how AI is being used so that associated bias risk can be mitigated, true benefits can be reaped and trust built.

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