Doing AI Right:
No Trust? No Business

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No trust? No business

There is no doubt about it: the world after 2020 will be dramatically different to the one that existed before it.

The COVID-19 pandemic has created an increasingly digital world – working remotely, shopping more online than in-store – and as a result even more data is being created every day.

Against this backdrop, technology—artificial intelligence (AI) in particular— will optimize how we work and live – from generating new business value to keeping people safe and secure.

For business leaders, the race is on to navigate a way through this next normal; The use of AI creates a world where high-quality data is no longer just nice to have—it is necessary for business survival. Bad quality data creates bad AI which can make bad decisions and can harm individuals

"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," says Ajay Bhalla, President of Cyber and Intelligence Solutions, Mastercard. "If not, we're in danger of creating a society without trust.

"Without trust, you can't do business," he adds. "More so now than perhaps at any other point in history."

This new world is also a world of new tools, enhanced networks and faster connectivity. These are paving the way for greater processing power, more nuanced capabilities and more accurate data outputs.

How can businesses maximize these new tools and future-proof their businesses, while also building trust in AI and their data?

This report seeks to answer that question. We draw on the insights and experience of global leaders in technology, ethics and applied intelligence, to tap into a conversation that is growing in both size and importance.

HOW TO BUILD TRUST IN AI

1. . Recognize the impact of data quality in delivering reliable actionable insights for the business, its customers and society

2. Provide transparency about AI so that individuals understand and trust AI

3. Prioritize governance and accountability within the business

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The trust formula: AI + Ethics

Ethical AI has gained momentum as an idea in the past three years.

But, it's not enough for AI to be branded as ethical. Today's organizations must be able to show how their systems and algorithms are responsible, fair and explainable. In a word, that their AI is trustworthy.

And there are no shortcuts to trustworthiness and ethical AI—each component matters. "We're now talking about trustworthy AI as if it's a characteristic that we can put into the AI," says Cansu Canca, Founder and Director of the AI Ethics Lab. "But you don't start off with trust. It's more accurate to say that trust is the resulting attitude of the user once the system is developed through an ethical process and to achieve ethical outcomes."

"Trust is the result of everything else we put into the AI. The question is how to ensure this development of ethical AI."

A 'PROBLEM FIRST' APPROACH

The mistake that too many organizations make, according to Canca, is to assume that stating good intentions is sufficient for achieving ethical AI. But for an organization to brand itself 'ethical,' it needs to do more than adhere to a framework of rules and regulations. Businesses must engage in ethical analyses and ethical decision-making to align their AI with their carefully determined corporate values and mission.

"It comes back not to, 'What does the AI do?'," says Ed McLaughlin, President of Operations and Technology at Mastercard. "But to what are you trying to do, and can this help you?"

Attempting to reverse-engineer ethical AI by applying a set of rules or regulations can be problematic. Pre-existing practices that were once necessary to generate, for example, transparency or privacy, don't necessarily translate from human to machine. "AI requires us to rethink how we qualify ethical principles," says McLaughlin.

[1]https://www.pega.com/about/news/press-releases/consumers-failing-embrace-ai-benefits-says-research

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Consumer trust: A balance of opinion

When it comes to trusting AI, consumers are divided.

On the one hand, they have a tendency to distrust AI technologies, and that inclination is regularly reinforced by news stories of biased algorithms, data hacks and privacy breaches. A May 2020 study found that less than a third of consumers (30%) felt comfortable with businesses using AI to interact with them, 53% said that AI will always make decisions based on the biases of the person who created its initial instructions, and just 12% believe that AI can tell the difference between good and evil.[1]

On the other hand, consumers rely on this AI despite their own biases. "Without realizing it, the trust we place in AI systems is extremely high," says Canca. "Just think about how you operate every single day: your emails, Google Maps, your Twitter or Netflix account, Amazon—everything we rely on uses AI."

That's a disconnect, and one that can be resolved with greater transparency.

"For individuals, the challenge comes from lack of good information," says McLaughlin. "One of the biggest concerns is, what's happening to my data? And when the decision goes against me, how can I understand that a decision was even made let alone how that outcome was reached? Individuals may not know how they are going to be exploited, they're just worried *that* they're going to be exploited."

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Quality or quantity? Data shapes delivery

Until now, there's been a lot of focus on what AI can do, and not enough on what it learns from. That's changing.

"Leading businesses now recognize the impact of data quality on their AI outputs," says Mastercard's Ed McLaughlin. "The size of a data set doesn't obviate bias – often, it reinforces it."

And while business leaders don't need to become data experts, the onus is on them to understand the role of data in shaping AI algorithms, outputs and, by extension, wider decision-making. Just think, for instance, how different the outcome of the global pandemic could have been if the quality and scope of data that organizations had access to had been dramatically better.

The European Union Agency for Fundamental Rights (EUFRA) has recognized the problem. "Since there are several sources of error in all data collections, users of AI-related technology need to know where the data come from and the potential shortcomings of the data," it says. "This is especially important in times of big data, where the volume of data is sometimes valued over quality."[2]

UK-based AI company Benevolent AI is using its algorithms to read millions of data from scientific research to make previously undetected links between findings due to barriers such as language or proximity, that could lead to new medical breakthroughs and drug discoveries.[3]

> "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."

Rumman Chowdhury, Responsible AI Lead at Accenture

SETTING THE DEFINITION

Data quality is one AI weak point that can thwart trustworthiness; bias is another. Even the term 'bias' means different things to different people, meaning it can be a "lost in translation moment," explains Rumman Chowdhury, Responsible AI Lead at Accenture. "From a data science perspective, bias is a quantifiable value," she says.
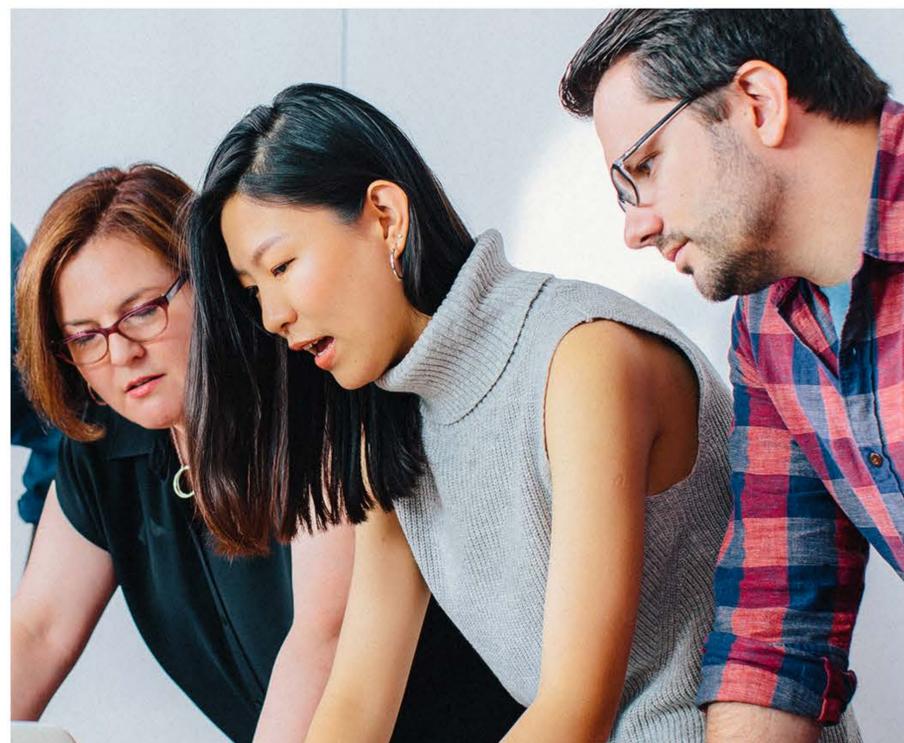
"All models need a level of bias in order to be generalizable, yet often when non-data scientists talk about bias in AI, they actually mean sexism, racism and so on."

"When I train my model, it is – by definition – imperfect, because it needs to be flexible," she adds. "It's intuitive when you think about it: if you made the perfect system, it would imply we had no free will as human beings. And that's a scary thought."

Instead, Chowdhury says, organizations need to start with the knowledge that there's no such thing as a perfect model, then work out how to explain to people and mitigate the level of associated bias risk.

[2]https://fra.europa.eu/en/publication/2019/data-quality-and-artificial-intelligence-mitigating-bias-and-error-protect

[3]https://benevolent.ai/blog/benevolentai/what-if-ai-could-take-your-research-to-the-next-level

Transparency as a trust-building measure

Since the introduction of the California Consumer Protection Act (CCPA) and General Data Protection Regulation (GDPR) in 2018, there has been a stronger global focus on data privacy than ever before.

For consumers, that shift has cast a spotlight on what companies have been doing with their data. How can companies use data to enhance the customer experience while providing transparency to the users about these activities?

When it comes to AI, the challenge has given rapid rise to the concept of explainability. Put simply, explainability is the application of the right to explanation – the ability for humans to understand how an AI system arrived at its outcome.

Get it right, and it can have a profound impact on consumer trust and loyalty. A recent Capgemini study found that 62% of consumers placed more trust in a company whose AI was understood to be ethical, 61% were more likely to refer that company to friends and family, and 59% showed more loyalty to that company.[4]
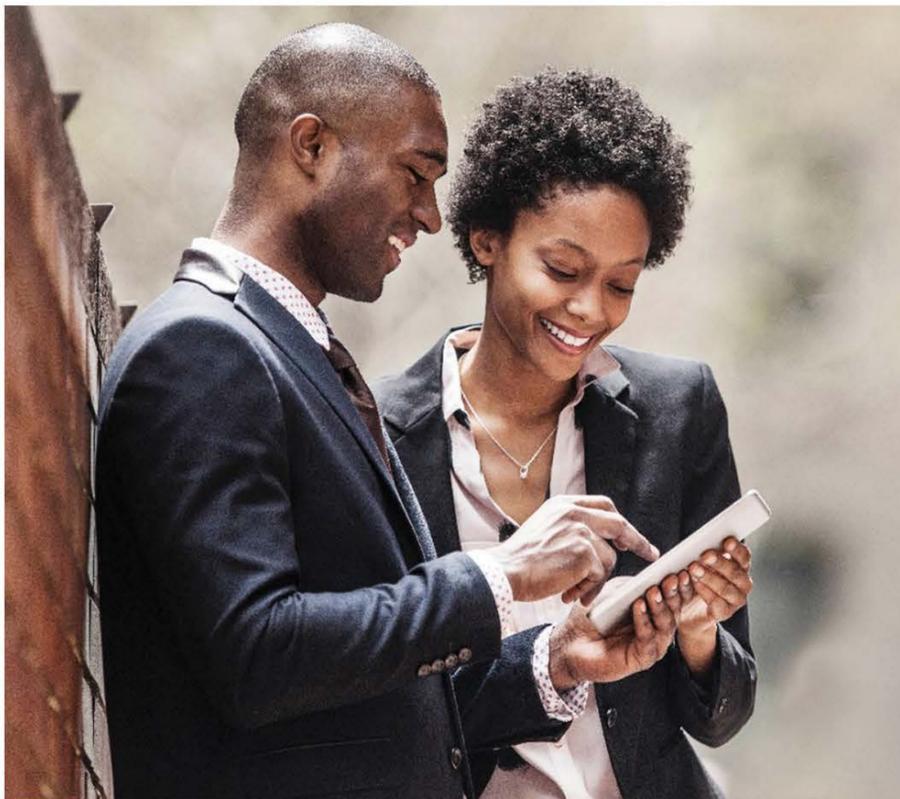
"Even before AI," says the airline's CIO, Maya Leibman, "we had to be really thoughtful about where data would enhance customer experience and where it became intrusive."

THE WORLD'S LARGEST AIRLINE AND RESPONSIBLE AI

For American Airlines, privacy is central to the customer journey. "Even before AI," says the airline's CIO, Maya Leibman, "we had to be really thoughtful about where data would enhance customer experience and where it became intrusive. Nobody wants a company they're doing business with to know too much about them. It's definitely become even more top of mind with the advent of more sophisticated technologies."

Leibman explains that in order to proactively address potential customer concerns about privacy, the firm engages in the process of 'privacy by design.' The airline works to ensure privacy is built into its technology – from design and development, through to delivery.

Responsibly deploying AI has enabled American Airlines to make a number of improvements across its business operations. For example, machine learning can tell it whether baggage is likely to make it to the aircraft based on factors such as where the bag is checked, where the plane is departing from and the time of day and day of the week. If the bag is unlikely to make its flight, the system sends a prompt to staff to address the potential issue.

And as the global pandemic dramatically altered business processes overnight, the company leveraged AI to respond. "The number of refund and exchange voucher requests received far exceeded anything ever experienced," says Leibman. "By using AI, American Airlines was able to compensate for the throughput of systems and constrained human capital and ensure that customers received timely refunds for flights they no longer planned to take."

[4]https://www.capgemini.com/gb-en/news/organisations-must-address-ethics-in-ai-to-gain-publics-trust-and-loyalty/

Who's in control?
Governance in the new world

So, trust is everything, and it rests on high-quality data, clear explainability and strong privacy frameworks to ensure that explainability. But how do organizations maintain a grasp on their data and ensure they're measuring up?

As AI becomes more powerful and more pervasive, they will have to put in place the systems that ensure it's used ethically.

According to Mastercard's Ed McLaughlin, AI governance is not about imposing a one-size-fits-all set of regulations. Instead, he says, it begins with three critical questions:

1. What are we trying to accomplish and is that an ethical outcome?
2. Do we have the right data and is it of sufficient quality to achieve that?
3. What are the obligations we need to meet to fulfil our end goal in a manner that avoids potential harm to the individual?

> A Mastercard-commissioned survey revealed that committing to principles for the ethical use of data would help drive trust with more than 90% of individuals.[5]

In considering these criteria, organizations will be better placed to establish ethical frameworks that deliver trustworthy AI. One example is Mastercard's Principles for Data Responsibility, a set of core principles that guide the ethical collection, management and use of data.

At their core, these principles are about generating trust through responsible business practices, says Mastercard's Ajay Bhalla. "We take a balanced view because if we over rotate on regulation, we stifle innovation. But if there is no regulation, responsibility and trust can be hard to come by," he says. Indeed, following the launch of the framework in 2019, a Mastercard-commissioned survey revealed that committing to principles for the ethical use of data would help drive trust with more than 90% of individuals.[5]

Good governance must also extend to what Accenture's Rumman Chowdhury describes as "venues of constructive dissent." This means giving people agency. "If an employee or customer has an issue with an AI that's been built, what is your infrastructure as an organization to raise these questions?" she asks. "How do you go up the right channels to raise it to the right people?"

[5]https://newsroom.mastercard.com/press-releases/mastercard-establishes-principles-for-data-responsibility/

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Final Word

Setting sights on the future may seem precarious at a time of such uncertainty, but for business leaders, now is the time to look at the big picture.

The global landscape in a post-pandemic world will be dramatically altered, as society calls for heightened levels of privacy and transparency, both of which breed trust.

The economic realities of the next normal, while daunting, will also provide the perfect conditions for AI acceleration, as businesses seek reliable information to operate responsibly. The result, according to Mastercard's Ajay Bhalla, will be a world that is more prosperous and more equal.

"After times of immense change, society always rebalances itself," Bhalla says. "If you're an optimist, you would believe that technology and changes in technology have always moved the world forward. AI is going to shape the world and help make our lives more convenient."

Until now, it has been pioneers on the cutting edge that have realized the value of ethical AI – as both trusted source and market differentiator. But in a global landscape that is altering so dramatically, all businesses need to take note.

"If compliance is the floor, ethics is the ceiling," says Accenture's Rumman Chowdhury. "Ultimately, there shouldn't be the terms 'responsible AI' or 'trust' or 'ethical,' because that's just how AI should be."

"If you're an optimist, you would believe that technology and changes in technology have always moved the world forward. AI is going to shape the world and help make our lives more convenient."

Ajay Bhalla, President, Cyber and Intelligence Solutions, Mastercard

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