



Scaling AI, Not Risks: Removing Trust as a Barrier to AI Adoption

Executive Summary

Around the world, companies are accelerating their digital transformation journeys: adopting new business models, moving workloads to the cloud and digitalizing their operations. To truly unlock the power of their data, they are increasingly exploring how AI can help predict and shape future outcomes, empower people to do higher-level work and streamline critical processes.

But even as the promise of deploying AI at scale has never been greater, many organizations are left with AI models in a proof of concept purgatory. Why? For many, the core issue is a lack of trust in AI and its outcomes. If organizations are to scale AI to help make business-critical decisions, they need to understand exactly how and why those decisions are being made. To harness the power of AI toward decision-making that profoundly impacts people's lives—for example, whether a customer is approved for a home loan or a job candidate advances to the next stage—they need to be able to explain those decisions to internal stakeholders (like business owners and model validators) and external stakeholders (such as regulators).

The key to trust is real AI governance, which requires visibility into AI models at every stage of the lifecycle: from data collection to model development to deployment to ongoing monitoring and management. And so, as enterprises move from experimenting with AI to widespread adoption, at scale, AI model lifecycle management and automation is quickly becoming the next frontier in AI development and research.

New data from the IBM report *Scaling AI, Not Risks: Removing Trust as a Barrier to AI Adoption* sheds light on the explosive growth in AI development among American companies—and the extent to which fairness, trust and explainability remain formidable barriers to widespread deployment. 82% of AI professionals say that, as a result of problems with bias in AI models or data, their organization has experienced issues such as reputation damage, loss of business, bad business decisions or an inability to retain or successfully recruit staff. Nearly half of AI professionals surveyed said that AI governance and management tools that do not work across all data environments is a barrier

to developing explainable, trustworthy AI. And a quarter of AI professionals say their organization has faced issues tied to trust or explainability while trying to deploy models into production.

Significantly, the study uncovered differences between AI professionals at large enterprises (with over 500 employees) and those at smaller companies. Since larger companies are currently outpacing smaller ones in the journey to AI, these discrepancies could provide critical insight into the direction in which the field is heading. Professionals at large companies, for example, are more likely to perceive the lack of trust, explainability and transparency as meaningful barriers—suggesting that as companies move toward greater AI deployment, these concerns are likely to become more pronounced.

Key Findings

1. Organizations are proceeding quickly on the journey to AI, with larger organizations outpacing smaller ones.

- About half of AI professionals (48%) say their organization is building one to 10 AI models a month, while an additional 15% say they are building more than 10 per month.
- 23% of AI professionals at large organizations say are building 11 or more models per month. At small organizations, that figure is 7%.
- Over a third (33%) of all companies, and 48% of large companies, have more than 10 data scientists actively working to build AI models.

2. Trust, transparency and explainability are top-of-mind concerns.

- 84% of AI professionals agree that consumers are more likely to choose services from a company that offers transparency and an ethical framework on how its data and AI models are built, managed and used.
- 76% of AI professionals say being able to trust that their AI’s output is fair, safe and reliable is “critically important” or “very important” to their business. That figure is greater at large companies (82%) than at smaller companies (70%).
- Over two-thirds (68%) of AI professionals say being able to explain how AI arrived at a decision is important to their business. That figure is also greater at large companies (74%) than smaller ones (61%).
- Over half of AI professionals think transparent and explainable AI is very important to their company reputation (55%), their company (55%), their team (53%) and their clients (53%). These figures are all greater at large companies than smaller ones.

3. The barriers to developing trustworthy AI and mitigating risk remain pervasive—despite the centrality of these concerns.

- 82% of AI professionals say their organization has been negatively impacted by problems, like bias, with data or AI models. Such problems have led to:

38% An inability to retain staff or successfully recruit

28% Loss of sales or clients

32% Bad business decisions

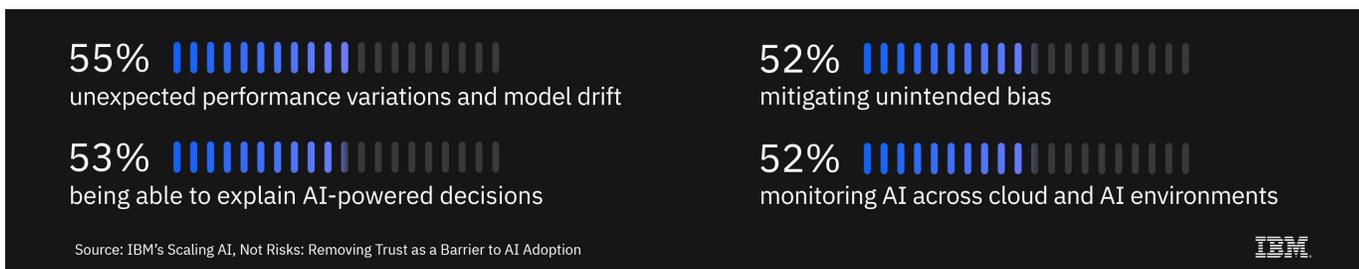
27% Damage to company reputation

Source: IBM's Scaling AI, Not Risks: Removing Trust as a Barrier to AI Adoption



- A quarter of AI professionals (25%) say their organization has faced issues tied to trust or explainability while trying to deploy models into production.

- AI professionals say that large or medium barriers to developing explainable, trustworthy AI include:
 - AI governance and management tools that do not work across all data environments (47%)
 - Building models on data that has inherent bias (45%)
 - AI solutions that are not explainable (44%)
- Many AI professionals share deep concerns about various aspects of AI model management:



- Over six in 10 (62%) AI professionals say their team spends a large or medium amount of time documenting their data and AI models for internal and external compliance and reporting, but 9% said they spend no time at all. While reporting can be burdensome, a total lack of reporting could raise ethical and compliance questions.
- 4. Despite recent strides within the field overall, a substantial minority of AI professionals still feel ill-equipped with the necessary information and time to properly understand and integrate AI into their business.**
- 20% of AI professionals say they are “not very equipped” or “not at all equipped” with the information and time they need to properly understand and integrate AI into their business. An additional 13% say they aren’t sure or don’t know whether they are properly equipped, while 37% percent say they are “somewhat equipped.”
 - While 72% of AI professionals feel their companies have been very or somewhat transparent around how AI was built and for what purpose, 10% say their companies have been “not very” or “not at all” transparent. And 19% say they don’t know or aren’t sure of how transparent their company has been—a telling figure in and of itself.
- 5. There are significant differences in perspective between AI professionals at small and large companies. Since large companies are further along in the journey to AI, their higher levels of concern around issues including trust, explainability and security could portend the future direction of the field, more broadly.**
- While 82% of AI professionals at large companies say it is critically or very important that they can trust their AI’s output is fair, safe and reliable, only 70% of AI professionals at smaller companies agree.
 - While 74% of AI professionals at large companies think being able to explain how AI arrived at a decision is important to their business (and 16% said they weren’t sure), just 61% of their counterparts at small companies agree (with 23% expressing uncertainty).
 - 68% of AI professionals at larger companies say their team spends a large or medium amount of time documenting their data and AI models for internal and external compliance and reporting, while 56% of their counterparts at smaller companies say the same.

Methodology

This study was conducted between October 19 – 21, 2020 by Morning Consult on behalf of IBM. The data represent the results of 750 responses collected among IT Decision Makers working in the AI field in the United States. The data has a margin of error of +/- 4% at a 95% confidence level.