

Bolted On, Not Built In

Why AI adoption is repeating the internet's biggest mistake

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The rebuild is the work: new foundations inside an existing structure.

About ten years ago, fuelled by Google's AlphaGo developments, my interest in data science and machine learning began to grow. After signing up for a course in machine learning, my understanding of what self-learning machines could do started to take shape. Little did I know at that moment how massive the speed of AI development would become.

For many, the AI journey started when the first ChatGPT was launched. It took the world by storm and achieved the fastest consumer adoption seen up to that point, reaching a reported 100 million monthly active users in just two months. Quickly, the "false" promise of AI found its way into the business environment, following the faster, cheaper and better trap.

The internet made the same offer

Back in the late 90s, when the internet arrived, most companies made the same mistake. They placed a website on top of the business they already had. The processes stayed the same, the structure stayed the same, and the website sat on the side like a digital brochure. Success was measured in visits and clicks, not in how the business itself had changed.



1999 • The website on the side of the business.

I watched this happen from the inside. For three decades I have worked in transformation programmes across Asia Pacific, and the pattern repeated in company after company. The new technology arrived, a project was started, a system went live, and the organisation around it carried on as before. The technology was present. The business was unchanged.

The clearest illustration is a famous one. In 2001, the American bookshop chain Borders decided its website was a distraction and handed its entire online operation to Amazon, effectively turning its own customers into Amazon customers during the formative years of e-commerce. Amazon, meanwhile, was rebuilding retail itself around the internet: its warehouses, its data, its logistics, its decision making. Borders took its website back in 2008. By 2011 it was gone. The difference was never the website.

The companies that adopted internet technology successfully did something harder. They rebuilt their foundations around the technology and let it reshape how work was organised, how decisions were made, and how value reached the customer.

None of this should have been a surprise. As early as 1987, the economist Robert Solow observed that computers were showing up everywhere except in the productivity statistics. The research that followed explained why: technology investment only paid off when it was matched by organisational redesign, new processes, new skills, new ways of deciding. The gains never come from the tools. They come from the rebuild.

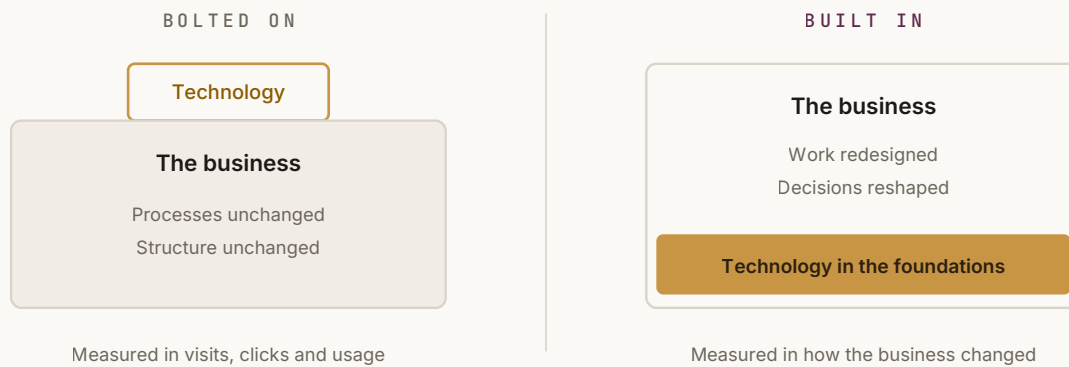


Fig. 1 • The internet mistake, repeated with AI. Technology placed on top of the business instead of built into its foundations.

AI is running the same sort, faster



2026 • The chat panel on the side of the business.

The same pattern is now repeating with AI. Organisations buy licences, run pilots, and add chatbots or agents on top of unchanged processes, then count usage and call it adoption. That is automation theater, not transformation. Real AI adoption sits deeper, in how an organisation coordinates, decides, and adapts. You do not get there by measuring tools. You get there by rebuilding.

This time we do not have to wait a decade for the evidence. In 2025, researchers at MIT Media Lab's Project NANDA studied hundreds of enterprise AI deployments and found that 95 percent of generative AI pilots produced no measurable profit-and-loss return, despite an estimated 30 to 40 billion dollars of investment. The reason they named was not the technology. It was the lack of integration with real workflows and data: tools that do not learn, do not adapt, and do not change

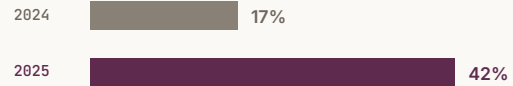
the way work is done. S&P Global found that the share of companies abandoning most of their AI initiatives jumped from 17 percent in 2024 to 42 percent in 2025. Bolted on, then thrown away.

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MIT MEDIA LAB · PROJECT NANDA · 2025

Companies abandoning most of
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S&P GLOBAL MARKET INTELLIGENCE · 2025

Fig. 2 · The pattern in numbers. Pilots placed on top of unchanged workflows do not return, and abandonment is accelerating. Sources listed at the end of this article.

Read those numbers carefully and they are not an argument against AI. They are an argument against the way it is being adopted. The same research found that the small group of projects that did deliver were the ones embedded deep inside specific workflows, changing how the work itself was done. The failures concentrate on the surface. The returns live in the foundations.

SAME CURVE, NEW TECHNOLOGY

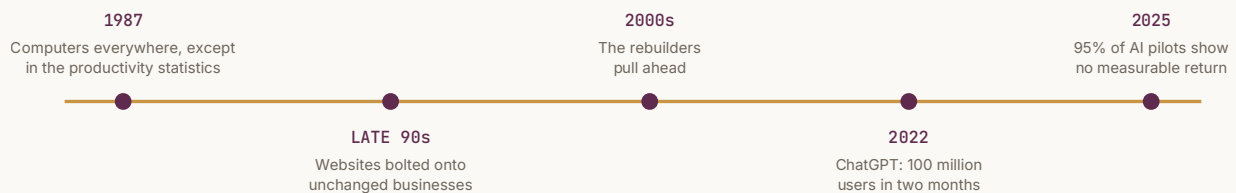


Fig. 3 · Four decades, one lesson. Every wave rewards the organisations that rebuild, not the ones that attach.

This thought led me to KAIVANT

This thought led me to the development of KAIVANT®. If rebuilding is the real work, then the first question is simple: how AI-native is your organisation today, and where do you start? Most measurements cannot answer that. They count tools, licences and usage, the surface of adoption. KAIVANT looks at the foundations instead. It measures how an organisation coordinates, how fast it decides, how quickly it adapts, and how much of its work actually creates value.

THE FOUR FOUNDATIONS KAIVANT® MEASURES

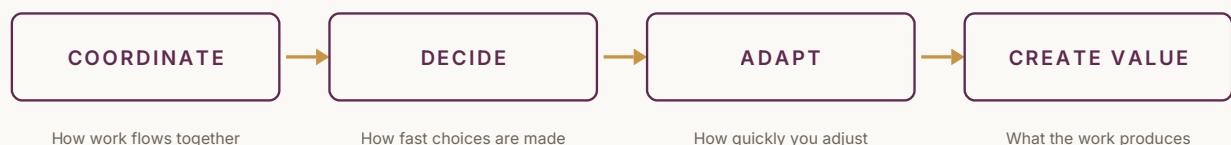


Fig. 4 · Real AI adoption lives in the foundations: how an organisation coordinates, decides, adapts, and creates value.

Take coordination first. Bolted on looks like AI writing emails and meeting minutes faster, which then travel through the same chain of handoffs and approvals as before. Built in looks like fewer

handoffs altogether, because information now flows to where the work is done instead of up and down a hierarchy.

The same split shows up in decision making. Bolted on produces reports faster for the same monthly meeting. Built in moves the decision itself: closer to the front line, earlier in the process, at the pace the market actually moves.

Adaptation is where the difference compounds. Bolted on adds an AI course to the training catalogue. Built in puts learning inside the work, so that every project leaves the organisation slightly more capable than the one before.

And value is where it all becomes visible. Bolted on measures activity: licences active, prompts sent, hours notionally saved. Built in asks a harder question: what share of all the effort in this organisation ends up as something a customer values, and is that share rising?

The result of measuring these foundations is not a ranking or a compliance score. It is a developmental picture that shows where you stand and what to build next, both for the organisation and for the people in it. The name carries the intent. Kai comes from kaizen, to reform and to begin. Vant points forward. And AI sits in the middle, where it belongs: inside the foundations, not on top of them.

Five questions before your next AI budget

You do not need a framework to start being honest with yourself. Five questions will do:

1. If every AI tool disappeared tomorrow, would any of our processes actually look different?
2. Has a single decision moved to a different place, or a different speed, because of AI?
3. Are we measuring usage, or are we measuring change?
4. Which handoffs have we removed, rather than accelerated?
5. Is AI a line in the IT budget, or a design question for the whole business?

If the honest answers make you uncomfortable, you are in good company. Most of the market is standing exactly where you are. The difference will be made by what happens next.

About ten years ago, a machine that taught itself to play Go pulled me into this field. What I did not expect was how familiar the story would become. The internet did not reward the companies that moved first. It rewarded the ones that rebuilt. AI will do the same, only faster. Ten years from now, nobody will ask how many licences you bought or how many pilots you ran. They will ask what kind of organisation you became. That answer is being written now.

Michiel R. de Boer is the Founder and Chief Architect of KAIVANT®, the AI Nativeness framework and assessment platform, and co-owner of MindMagine. He writes from Kuala Lumpur.

Sources: Project NANDA at MIT Media Lab, The GenAI Divide: State of AI in Business, 2025; the 95 percent figure measures pilots with no measurable profit-and-loss return within about six months. S&P Global Market Intelligence, 2025. Robert Solow, 1987. Borders and Amazon as reported in the business press, 2001 to 2011. Photographs are AI-generated illustrations.