Human progress relies on our ability to transform data into insights

Data transformation has become pertinent across all sectors. But what exactly does this process entail? Put simply, it's about turning data into deeper insights, which are crucial for success.

Countless sectors are set to benefit. Retail businesses for example have leveraged data insights for years, particularly in their omnichannel engagement strategies, which are now widely used to connect customers with actual experiences, and inform future ones. Other sectors are now also cottoning onto the value of data-driven insights, and intelligently engaging with consumers using valuable and unique data points based on their specific activities, habits and interests.

Ultimately, data transformation is helping businesses build better connections with their audiences. But the potential applications of data go far beyond purely commercial use cases.

The data transformation playbook

A connected society is crucial for human progress, and there's already evidence that data digitisation is helping catalyse it. The NHS, for example, is in the process of transforming its clinical data for digital pathology. For now, it's about speeding up medical decision-making, but in a few years' time it will

be much more.

Imagine a world in which blood test results can be immediately compared to thousands of others, enabling healthcare professionals to quickly identify any conditions an individual may be susceptible to, and provide preventative care, diagnosis and treatment. That reality is a lot closer than you think.

The same model is improving safety in industries like construction, aviation and mining too. These sectors have a huge reliance on transport systems and high-powered infrastructure, and face significant safety issues as a result. By using predictive analytics against collated monitoring data, countless businesses can now anticipate potential incidents before they even happen.

It's a playbook that has potential applications in numerous other scenarios, where data-driven decision-making, if deployed strategically, could be used to deliver bigger and more tangible benefits to humankind. The mass digitisation of soil sample data, for instance, promises to give us a huge array of insights into the impact that climate change may have on ecosystems and agricultural production.

From insights to decisions

The more data we have, the more there is to analyse and make decisions from. For many organisations, this is hindered by the fact that their data sits within siloed departments, across disparate sources and environments and in inconsistent formats. These data siloes need collapsing into one set to make data easier to analyse and identify wider, organisational trends.

Some firms have succeeded in doing so, and even begun embarking on more artificial intelligence (AI)-driven projects, as businesses look to embed intelligent, AI-driven decision-making using AI within their organisations, as well as advanced machine learning (ML) models. These companies are ultimately looking to become more agile and compete better on price. It's creating a tricky situation for many incumbents, largely due to the difficulties and costs associated with storing petabytes of data, which is expensive and inflexible to do in the public cloud.

These costs escalate quickly for those that need or want to move their data around, too. Health providers for instance, may be required to share anonymised data with a third party for vital research purposes to advance healthcare and treatment. Doing so from the public cloud can incur huge costs when such large volumes of data are involved, which explains why many are experimenting with private and hybrid cloud architectures, while moving away from public offerings.

More than just commercial

We should think of data like the human brain. It has so much potential and holds endless intelligence, but that information isn't always so easy to access.

The commercial case is clear: businesses wanting to move at speed in the digital world simply have to generate faster and smarter insights from data if they're to create long-lasting relationships with customers. But on a broader societal level, our ability to transform data not only into insights, but into decisions, will also be vital for human progress. So, it's a critical hurdle we must overcome.

There's endless opportunity in the era of AI and automation for organisations to create new data-driven offerings. That process starts with getting a better grasp of their data footprint, and the storage and analytics that's needed to digitise data. Only then can we ensure it generates value, while simultaneously enhancing society for us all.

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