

What are AI, Big Data, and IoT and where are they being used?

Intelligent Transformation Overview

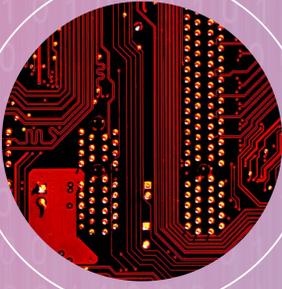
To explore the adoption of technology driving intelligent transformation, Lenovo has launched the first edition of the global Intelligent Transformation Index, which benchmarks adoption rates of transformative digital technologies across markets and industries. The report is written by Economist Impact and commissioned by Lenovo.

Digital intelligence refers to the suite of technologies that enable machines to learn and generate insights from data. Specifically, these technologies are artificial intelligence (AI), big data analysis, and the internet of things (IoT), and Intelligent Transformation is how businesses are driving greater insights and enabling machine learning to drive greater change which drives both a social and economic



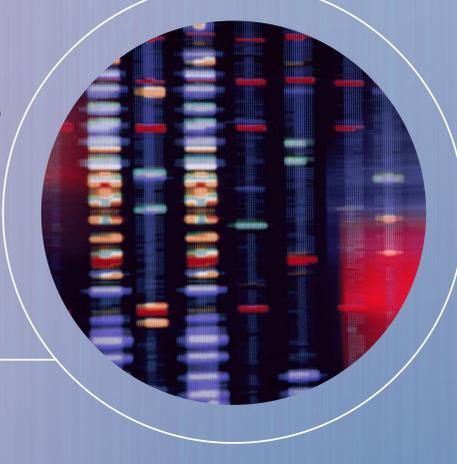
Artificial Intelligence (AI)

AI helps save time and money through optimizing routine processes. Image recognition and speech generation are two human cognitive functions that are leading the AI movement. These have become common features, as AI uses Image recognition to detect and discard inappropriate images to help maintain a safe viewing platform online. Voice assistance smart home technology uses speech recognition to follow demands and act upon them.



Big Data

The collection of Big Data plays a major role in AI being able to evolve. Pulling together a continuous stream of data allows businesses to improve operations, provide better customer service and create a more personalized approach. In everyday use, geolocation on a phone comes through the collection of Big Data.



Internet of Things (IoT)

In many cases, IoT draws on AI and Big Data as the thought process behind its actions. Many devices are now connected to the internet, and IoT uses AI and Big Data to apply the command given. If using voice assistance to assert a command on an object, IoT allows for that command to occur.



Countries looking to excel in digital intelligence need to possess the ‘trinity’ of talent, data, and infrastructure. There is also a need to focus on industries outside of the tech sector, as these typically tend to be the weakest link. Countries with the highest adoption rates are those where firms in more traditional sectors like retail and hospitality have also embraced the digital intelligence revolution.



Alexander van Kemenade, Principal at Economist Impact

(findings from the Intelligent Transformation Index report, Economist Impact)

What’s needed for Intelligent Transformation to be successful, once given sufficient funding to progress?

- Infrastructure: Ensuring sufficient availability of high-speed broadband, data centers, and cloud computing
- Talent: Investing in ICT education and training, attracting skilled migrant workers
- Institutions: Establishing organizations and governance mechanisms under which knowledge, technology, and data are shared within and between government, academia, and industry
- Market barriers: Working beyond trade barriers and certain restrictions on data transfer and processing

What is the progressive outcome of Intelligent Transformation?

XaaS (Everything as a service) is the output that AI, Big Data, and IoT bring as a collective. Many businesses have introduced a chatbot using **AlaaS** to help streamline customer queries and complaints. This is now leading to more complex tasks such as financial planning and inventory management.

Further leaps in Intelligent Transformation have seen progression towards low-code and no-code. Whilst traditionally, code creation has been needed to create, the language revolution is now allowing computers to interact with users in human tongues. This makes AI both accessible and affordable to a greater market.

Read the whitepaper in full [here](#)