

Cognitive transformation

When we separate “Cognitive transformation” from “Digital transformation” what do we mean?

Whilst all data and processes are ‘digital’ today, the technologies referred to as ‘AI’ are more than just another wave of technology. They can be added to a business as productivity enhancers and competitive necessities, but they also change the way that we think about problems. We see “Cognitive transformation” as a series of cues

- We have new tools that more closely emulate the workings of the human mind (Technology)
- “We shape our tools, and our tools shape us” (Philosophy)•
- Transformation of our thinking i.e., cognition, comes from adversity (Psychology)^o

The following table help situate some of the differences that we see

• Father John Culkin, SJ, a Professor of Communication at Fordham University in New York and friend of Marshall McLuhan to whom the quote is often mistakenly attributed. Also see *Additive AI* by Professor Mark Kennedy, Imperial College London

^o Cognitive transformation as a marker of resilience – Tebes, Irish, Puglisi Vasquez and Perkins- Pubmed

Digitalisation



Digital transformation



Cognitive transformation

We asked our **Imperial Tech Foresight** team to break down a few common business problems to see how companies at different stages of digital maturity would tackle the challenge.

Is this your experience? Where does your organisation fit on the transformation journey?

The challenge	Digitalisation	Digital transformation	Cognitive transformation
How can we effectively optimise our resources?	Once we've digitalised all our processes, we can start analysing	Merging processes allows us to create new metrics. We have oversight of our tech spend	AI: Introduce and let loose. <i>AI will be empowered to act itself e.g., using agents</i>
How do we adapt to change and scale our business operations?	We're starting to see our work as a whole with uniform systems and processes	Now we can leverage automation (ML and AI), and we can see how to utilise the Cloud	AI makes the suggestions , we then assess whether it's right for us, and right for now. <i>AI is a knowledgeable partner</i>
How can we leverage tech to improve our overall business performance?	Clear budgeting and greater overall planning helps set the strategy	Proactively identifying new tech to help achieve newly-defined metrics and KPIs	AI is constantly evolving the strategy , and challenging if tech delivers what's needed. <i>We can conversationally explore business opportunity and possible futures</i>