



KEEPING UP WITH DIGITAL TRANSITION

Glossary of key tech terms

3D Printing - 3D printing uses a special printer that can print solid, tangible shapes and products. It does this by using filament in the place of printer ink, typically made of a suitable material like plastic. To produce the object, the printer uses a 3D computer rendering of a physical object and 'prints' it out by moving the printer head up and down as well as side-to-side.

AgriTech - Agricultural technologies such as farm robots.

AI - Artificial intelligence (AI) - Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. In other words AI is computer systems that can perceive the digital or physical world, process what they perceive and, in most cases, take the kind of action that normally requires human intelligence.

Architecture Tech - Technologies for buildings such as elevators or smart windows.

Assistive Technology - Devices that improve the capabilities of people with disabilities such as a hearing aid.

AR – Augmented Reality - Augmented reality (AR) is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli delivered via technology – often a smart phone. Augmented reality almost blurs the line between the real physical and the digital world. It adds an interactive layer that combines the virtual and the real.

Blockchain - Blockchain is an alternative system for keeping records and storing transactions. It holds data in a decentralised ledger (the Blockchain) which is maintained across a network of participants, not a single, central server. There is no central authority - it uses the participants to confirm transactions - so there is no central point of failure. It maintains a log of all transactions in its chain and each is time stamped and encrypted so a logical sequence of all transactions can be traced back in time.

Cryptocurrency - sometimes called cryptocurrency or simply crypto, is any form of currency that exists digitally or virtually and uses cryptography to secure transactions. Cryptocurrencies don't have a central issuing or regulating authority, instead using a decentralised system to record transactions and issue new units.

Deep tech - technology that is based on tangible engineering innovation or scientific advances and discoveries.

Digital Twins - Digital Twins are virtual representation of a real-world physical system or process. They can create simulated cities which use VR, AR and the Metaverse to engage residents in new ways. Essentially, they use the tools from the gaming sector and can enable citizens to explore, interact with and comment on their future city plans – or simply to access public services in a more appealing way (through avatars).





Drones - A drone is a flying robot that can be remotely controlled or fly autonomously using software-controlled flight plans in its embedded systems.

FinTech – Financial Technology - computer programs and other technology used to support or enable banking and financial services.

HealthTech, or digital health, uses technology (databases, applications, mobiles, wearables) to improve the delivery, payment, and/or consumption of care, with the ability to increase the development and commercialization of medicinal products.

Immersive Technology - refers to technology that attempts to emulate a physical world through the means of a digital or simulated world, thereby creating a sense of immersion.

InsurTech - Technologies & platforms that help optimise any of the principles for success or requirements of insurance.

Internet of Things - IoT - Internet of Things refers to a network of physical devices that are fitted with chips or sensors that collect and communicate data. The term IoT encompasses every 'thing' connected to the internet, but it is increasingly being used to define objects that 'talk' to each other because they are connected together, from simple sensors to smartphones and wearables. These connected devices can be linked with automated systems that gather information, analyse it and create an action to help someone with a particular task, or learn from a process.

Machine Learning - Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves.

MADTech - marketing advertising technology.

MarineTech - technologies for the safe use, exploitation, protection of, and intervention in, the marine environment.

MedTech - Devices, medicines, procedures and systems designed to prevent, cure or mitigate health problems.

Metaverse – AR is a key part of the Metaverse which could be defined as 'the internet, but with a spatial (3D), game engine-driven collection of virtual environments'.

Mixed Reality - the merging of real and virtual worlds to produce new environments and visualisations where physical and digital objects co-exist and interact in real time. Other - FoodTech, SexTech, SportsTech, MusicTech, FemTech

PropTech - is the use of information technology (IT) to help individuals and companies research, buy, sell and manage real estate. Similar to the way FinTech focuses on the use of technology in finance, PropTech uses digital innovation to address the needs of the property industry.

Robots – A robot is a type of automated machine that can execute specific tasks with little or no human intervention and with speed and precision. Robotics deals with robot design, engineering and operation.

SpaceTech - Technologies for exploring or commercialising space such as spacecraft or communication satellites.

Travel Tech - Transport technology such as high-speed trains and aircraft.

VR Virtual Reality - Virtual reality is an artificial environment that is created with software and presented to the user in such a way that the user suspends belief and accepts it as a real environment.

