Megatrend

ARTIFICIAL INTELLIGENCE

Artificial intelligence describes computer programs that have the ability to learn, adapt, reason, plan and problem solve to improve how they perform tasks. AI can be trained to recognise and act on pretty much anything, including discerning patterns in information that we can't. Eventually, it is likely we will be unable to distinguish between a human and an AI as they communicate with us.

Why is this so important? AI promises to take a vast amount of tasks that have always been done by humans, and do them better than we can. It will free up our time to use our understanding, judgement and empathy.

Megatrend Mashup

Megatrend

ARTIFICIAL INTELLIGENCE

Future Now - Siri is one of the most popular personal assistants, offered by Apple. She assists us to find information, get directions, and much more. Siri uses machine-learning technology in order to get smarter and more able-to-understand natural language questions and requests.

Future Next - AI will change the world of healthcare with personalised medicine. AI will be able to provide a diagnosis and use integrated data to recommend the most effective personalised treatment options for the patient.

Future Beyond – AI will be used in smart businesses to adapt to the individual worker's needs allowing performance and happiness to be enhanced.

Megatrend Mashup

Megatrend

INTERNET OF THINGS

All manner of physical things in our environment are being made ‘smart’ in that they can be controlled over the internet, and they produce usable data from their sensors. The internet of things involves connecting any device with an on and off switch to the Internet and to each other.

Why is this so important? It will result in the creation of simply vast amounts of information about our world, and the ability to automate so much more of our lives.

Megatrend Mashup

Megatrend

INTERNET OF THINGS

Future Now - Smart Cities and Homes give us a new world of detailed knowledge about every aspect of the environments we live in. You can remotely find out what is in your fridge right now, and soon it will order more milk when you get low. Grocery lists will soon be a thing of the past.

Future Next -Sensors on and about our bodies will turn healthcare on it's head - soon your smart watch could monitor your heart health and mental state.

Future Beyond - The internet of things is likely to be the internet of everything. The majority of objects in our lives will be able to sense and report data and do what they do when other sensors tell them to.

Megatrend Mashup

Megatrend

ROBOTICS/DRIVERLESS VEHICLES/DRONES

Robotics describes physical machines that can perform tasks with perfect repeatability and great speed. Driverless vehicles are a type of robot that can get people or cargo, to anywhere, with a precision, performance and safety than humans cannot match. Drones are a type of AV's which generally fly or swim, to deliver things and see and notice.

Why is this so important? They will redefine physical work, mobility and allow us to do things we simply cannot physically do at present.

Megatrend Mashup

Megatrend

ROBOTICS/DRIVERLESS VEHICLES/DRONES

Future Now - Large corporates are currently testing drones as a means to deliver goods. Dominos pizza has recently conducted a New Zealand trial, sending out their pizza deliveries across the skies.

Future Next - Driverless cars will become more common. It is expected that the number of road fatalities will decrease, with experts estimating up to 90% reduction in accidents. Without the need for a driver, the traditional look and feel of a car is set to radically change, placing "ride sharing" at the centre of future design concepts.

Future Beyond - People with disabilities will be able to remain in the comfort of their home, with robots assisting with daily care responsibilities. These robots are expected to be fitted with sensors, making sure the person is safe at all times and equipped with everything he or she needs.

Megatrend Mashup

Megatrend

BLOCKCHAINS

A blockchain is a way of recording information so that it cannot be changed or altered and is difficult to destroy. This removes the need for a trusted third party like a lawyer, bank or government to safeguard information. Blockchains are often underpinned by cryptocurrencies, a new type of money that is not issued or controlled by governments.

Why is this so important? It may change the way that society records anything that we need to trust. It may change the way we exchange value, and the role of the nation-state in issuing money.

Megatrend Mashup

Megatrend

BLOCKCHAINS

Future Now- Uport provides self-sovereign ID on a blockchain, enabling you to collect verifications, log-in without passwords and digitally sign transactions.

Future Next - Dubai aims to have 100% of applicable government services and transactions happen on blockchain by 2020.

Future Beyond - For electric cars, blockchain is being used to prototype the ability to share home chargers, and to handle billing for wireless charging at intersections.

Megatrend Mashup

Megatrend

BIOTECH/CYBERNETICS

Biotech involves modifying living organisms to create products or improve those organisms. Cybernetics means that technology is added to organisms to enhance their physical or mental capabilities.

Human beings are organisms.

Why is this so important? It will change how we sustain and perpetuate ourselves, and perhaps how we define ourselves as human beings.

Megatrend Mashup

Megatrend

BIOTECH/CYBERNETICS

Future Now – Biotechnology is currently used to produce products such as hormones, enzymes and antibiotics. Human insulin can be produced by genetically modified bacteria which can then be used to regulate blood sugar for those with diabetes.

Future Next - Biotech will allow us to prolong our lives, edit our genetic makeup and grow replacement human organs. Biotech may totally change the way we produce food and other raw materials.

Future Beyond - Cybernetics may allow us to add machines to our bodies to improve our perception and our memory. Biotechnology may allow humans to regenerate after a serious accident or due to normal aging.

Megatrend Mashup

Megatrend

3D PRINTING

3d printers are machines that can create varying objects using different materials. These printers are becoming more cost effective, meaning that the machines are now being used in the everyday home. Today we can use some materials to make prosthetics, buildings and art. Tomorrow anyone will be able to print in molecules to make anything from medicines, body parts, chemicals and complex machines.

Why is this so important? 3d printers may be in every home and workplace and totally redefine the nature of goods, food and our economy.

Megatrend Mashup

Megatrend

3D PRINTING

Future Now - 3D printing has been used to print a 1,100-square metre mansion and a five-storey apartment block. Concrete walls were printed which were then moved into position to form the final structure.

Future Next - 3d printers will soon be printing skin or cartilage, which are relatively simple structures. Eventually, the pioneers of this technology believe they will be able to create complex organs, such as hearts and livers, from scratch.

Future Beyond - People will be able to remain completely at home whilst shopping and receive goods in an instant. An individual will place an order through their virtual assistant and immediately pick it up from their home office's 3d printer.

Megatrend Mashup

Megatrend

VIRTUAL / AUGMENTED REALITY

When you use a Virtual Reality device you become immersed in a believable alternate reality. VR can take over any or all of your senses to transport you into a different time, place and situation. VR allows you to both look and move around and in some cases even interact with this computer generated environment. Augment Reality (AR) is information overlaid on to any or all of your senses as you perceive the real world through your phone camera, a headset or another device.

Why is this so important? Both AR and VR provide a way of experiencing digital information in a more immersive and interactive way than ever before.

Megatrend Mashup

Megatrend

VIRTUAL / AUGMENTED REALITY

Future Now - Expeditions is a virtual reality educational app created by Google which allows school children to travel to places on a "virtual trip". Teachers can take their class on a school trip to Antarctica, the International Space Station and many other places without leaving the classroom.

Future Next - VR and AR may lead to a drop in physical travel - tourism may reduce drastically. People's ability to absorb and act on information in the workplace may increase.

Future beyond - Improvements in VR technology may lead to totally immersive worlds which have people mainly experiencing them rather than the physical world.

Megatrend Mashup

Megatrend

COMMUNICATE ANYWHERE/ ADVANCED INTERFACE

Internet connectivity is becoming ubiquitous, and as it does that increasingly means that digital experiences are the same regardless of location. Additionally, the ways that we can control technology are evolving- changing from just with your hands, to with your face, your voice or your mind directly.

Why is this so important? It may make physical location irrelevant to how we work and play, and meld technology into our lives ever more meaningfully.

Megatrend Mashup

Megatrend

COMMUNICATE ANYWHERE/ ADVANCED INTERFACE

Future Now - We have tools like Skype now that allow video communication with anyone across the globe. These tools will become more pervasive and part of other apps, making location less important in our lives.

Future Next - Working from an office may become a thing of the past for many people as the technology limitations forcing us to be physically together or at a desk are removed.

Future Beyond - Neural lace is an ultra-thin mesh that can be implanted in the skull, forming a collection of electrodes capable of monitoring brain function. It creates an interface between the brain and the machine which may be used to totally change how we work with technology.

Megatrend Mashup

Megatrend

DIGITAL COMMUNITIES AND MEDIA

People across the world are increasingly coming together in digital communities to share information, ideas, personal messages, and other content. A large portion of the information that we recieve about the world comes via these channels in the form of digital media. This pervades many people's lives now, and facilitates human connections the world over.

Why is this so important? Digital communities may replace physical ones for many if not all of the people in our world.

Megatrend Mashup

Megatrend

DIGITAL COMMUNITIES AND MEDIA

Future Now - When natural disaster strikes and causes devastating destruction, social media is the ideal vehicle to deliver messages asking for support.

Future Next - Each person with a smartphone now has the means to create a historical archive, and does so with each image, video, or status update. This may redefine our concept of knowledge and record keeping, as much more of peoples lives can be handed down.

Future Beyond - Digital communities may be the underpinning of what comes after nation-states in how we organise ourselves as humans, along lines of interest and shared ideas rather than geography.

Megatrend Mashup

Megatrend

DATA AND ANALYTICS

Measure, learn and predict things about people, organisations and the environment using massive amounts of data from an unprecedented variety of sources. Some of these can be used to measure different things than they were designed to measure.

Why is this so important? Because analysis of data allows us to extend what we know beyond what we can notice by ourselves. The increased availability of data means that we can know exponentially more.

Megatrend Mashup

Megatrend

DATA AND ANALYTICS

Future Now - To cut waste, farmers can use data and predictive analytics to have a better idea of exactly how much food will be required to ration out feed to livestock. By providing animals with the correct amount of food they will be able to save resources and reduce risk while raising healthy animals.

Future Next - Our digital lives may be much more finely personalised and tuned to our wants and needs. Analytics will tell you with great accuracy what shoe will make you feel fashionable.

Future Beyond - Advanced analytic techniques may be used to combine and learn from data produced by all parts of our lives via the internet of things. We truly do not know yet what knowledge will be produced, and what wisdom that will lead to.

Megatrend Mashup

Megatrend

SHARING ECONOMY/ CROWD SOURCING

Digital services now provide the links between people to provide, share and consume goods and services globally and locally without supply chains and middlemen being necessary. This is increasingly calling our ideas of ownership into question - do you need to own a car in future? Crowdsourcing is a subset of the sharing economy that uses those links to provide money, work, or knowledge.

Why is this so important? It may completely change how our economy works, reducing or removing the power of the middleman and improving access to and utilisation of resources.

Megatrend Mashup

Megatrend

SHARING ECONOMY/ CROWD SOURCING

Future Now - On Amnesty International's Decoders Network, more than 8,000 volunteers from 150 countries participate in projects to identify human rights violations using satellite photographs.

Future Next - CrowdFlower's AI allows businesses to perform tasks with algorithms and machine learning, then bring in human judgment if they're not quite as confident in their technology – and the human input makes the algorithms smarter.

Future Beyond - Imagine life without ownership. You own nothing. You rent everything. You do this because it's cheaper: you pay cents or fractions of cents per day to have a bed to sleep in, or a winter coat to keep you warm.

Megatrend Mashup