



Megatrends

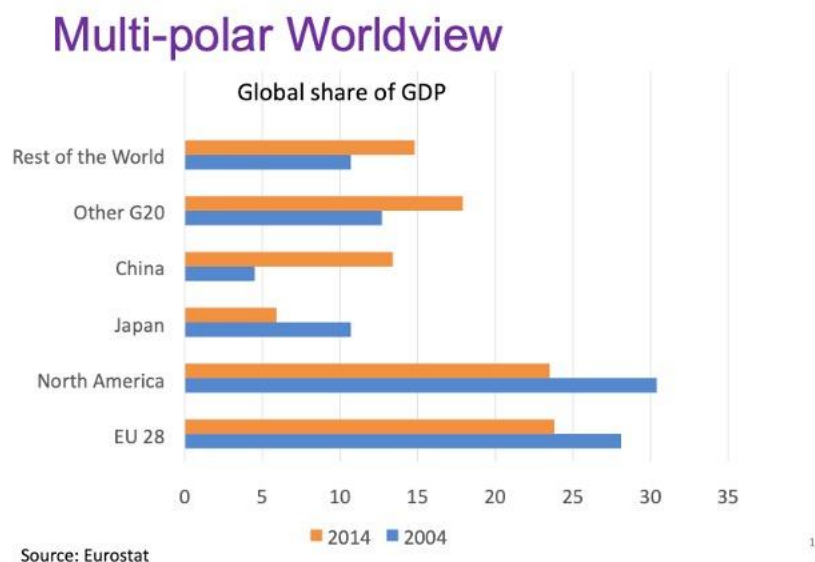
Our blog series on Megatrends, based on Patricia Lustig and Gill Ringland's book of the same name, continued into 2019.

Megatrends and How to Survive Them: Multi-Polar Worldview

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**.

This is one of a series of blogs based on the work we have done for the book. In it, the seventh Megatrend we explore is Multi-Polar Worldview. We chose this trend because the centre of gravity of global power and influence, both political and economic, is shifting from the North and West to countries in the East and South (often referred to as the Global South).

We are seeing the end of the post 1945 global consensus, moving from a USA-led world to a multi-polar worldview. It is not yet clear which nations, if any, will emerge as the primary influencer(s) in this multi-polar world. Of course, different worldviews will change not only the way that decisions are made, but potentially the range of decisions themselves. And a breadth of different worldviews will contribute to creativity and innovation.



Politics follows economics. Follow the money to find the power. This graph shows the amazing change in global share of GDP from 2004 (the aqua bars) to 2014 (the dark blue bars). The shift is from Japan, North American and the EU28 (the bottom three) to the rest of the world, the other G20 and China as



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the top three. Together with this shift in share of global GDP we are seeing increasing political strength of the world outside of Japan, North America and Europe, leading to a world no longer dominated by them, but now – and increasingly so – a multi-polar world.

China has replaced the USA as the driver of global change. On purchasing-power-parity (PPP) its economy became the world's largest in 2013; its GDP per person at PPP has risen tenfold since 1990, much faster than any other developing economy. Two thirds of the world's decline in poverty since 1990 has taken place. At the same time, China is also responsible for half of the total increase in patent applications since 1990.

We think it is very likely that by 2032 the world order will be a dynamic and complex form of multi-polarity with no one country or region dominant. It could be that three or four of the world's five largest economies are in Asia: China, India and Japan with the potential that Indonesia occupies the fifth place. Different nations have different visions of what a common world should look like. Different nations have different views of what is ethical behaviour and what not. The coming years are likely to force diverse visions of political order to be intermixed and exist together. We only have to think about how differently different countries view 'free and fair trade' to get an idea of what this could look like.

While this may be difficult and even a source of trepidation for many people, we think there are great possibilities for organisations and businesses because greater diversity unleashes greater creativity and innovation. It gives us the opportunity (if we recognise it) to create new relationships, businesses, markets and models of interaction across the world. Not to mention to learn more about others and how they think differently

Some relevant articles:

- <https://www.economist.com/graphic-detail/2018/10/27/the-chinese-century-is-well-under-way>
- <https://www.economist.com/leaders/2018/03/01/how-the-west-got-china-wrong>
- <https://www.axios.com/chinas-takeover-as-the-world-top-exporter-180c8514-b38d-4388-b126-b40912720fca.html>
- <https://www.theguardian.com/world/2017/jul/14/globalisation-the-rise-and-fall-of-an-idea-that-swept-the-world>

Some questions you might consider:



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- How does someone from a meritocracy deal with authoritarian, hierarchical rule?
- How do you adapt your business model to work across different cultures efficiently and effectively?
- How do you relate to the people you work with respectfully and effectively across diverse cultures?
- Do your networks reflect the cultural diversity of the multi-polar world?

We live in interesting times!

*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, published 16 January 2019*



Megatrends and How to Survive Them: Global Limits



Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**. This is one of a series of blogs based on the work we have done for the book.

As increasing numbers of people become middle class (using Hans Rosling's four levels, levels 3 and 4 the number is roughly 3 billion people), their wants and desires require ever more resources. They have seen what others have (in mature economies in the global North) and they want some of it too.

The current world population and the lifestyles of most of us are stressing the global natural systems with unknown results. There are three main areas where our impact on the global environment is causing problems: climate change, environmental degradation and resource shortages.

Climate change is leading to more and more extreme weather events. It leads to higher sea levels as glaciers and polar ice melt. Droughts and heatwaves create water shortages. Desalination of the Atlantic as the polar ice melts will have unpredictable effects on the Gulf Stream that warms northern Europe.



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Environmental degradation has – in some areas – passed the point of no return. Johan Rockstrom suggests that we have gone beyond restorable limits on biodiversity, chemical pollutants (e.g. on crop land) and deforestation.

Finally, some **resources** that we have up until this point in time taken for granted that they are available in sufficient quantities, are becoming scarce. You only have to remember the issues experienced by Cape Town in April of this year where an ongoing drought made the headlines and water was rationed. Some minerals are also becoming scarce and we have known for some time of the scarcity of the rare earth elements some of which are needed for the manufacture of our ubiquitous smart phones and high-tech gadgets. Increasing numbers of people in China and elsewhere are starting to eat more like the average American – that is, they want to eat more meat and to have a more varied diet. China is scouring the planet in an attempt to fulfil its people's desires.

We think it very likely that by 2032 many major cities around the world will experience more flooding which will have a knock-on effect to our increasingly urbanised world. It won't just be river flooding, but also rising sea levels and sea surges due to increasingly volatile weather for many coastal cities around the world. Social systems may become stressed as urban populations swell and as the size and frequency of emergencies and disasters increases.

Unless air pollution is quickly tackled – as China realises – many more deaths will occur. As it is, even today, living in urban areas with air pollution contributes to decreases in longevity. It is much harder to tackle sea pollution, both visible and invisible, which requires international coordination and regulation which may well be hindered by the multi-polar world order we are approaching. We don't even (yet) know all the consequences of this.

It is likely that much more thought will be given to our use of resources. As more people are able to afford more – and more varied – food, it is likely that countries and regions will take a more active planning stance in order to attempt to meet demand.

The drive to design for re-use and recycling is getting stronger and as resources become scarcer, this will be imperative. We are likely to see innovation not just in design and recycling but also in waste management as the need for it becomes undeniable.

This may lead to devolving responsibility to people and organisations so that they manage their resource usage and waste locally.



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Some questions that might be useful for you to explore:

- How resilient are your supply chains to resource scarcity and unstable weather conditions?
- How might flooding put your organisation at risk?
- How might you need to innovate to better design for re-use and waste management?

Some interesting articles in this area:

Johan Rockstrom:

- https://www.ted.com/talks/johan_rockstrom_let_the_environment_guide_our_development
- <https://www.bloomberg.com/news/articles/2018-01-11/china-is-winning-its-war-on-air-pollution-at-least-in-beijing>.
- <http://thealt.com/2017/03/20/bee-pocalypse-drastic-declines-bee-diversity-threaten-food-supplies-locally-globally/>
- <http://news.trust.org/item/20180131175029-qezh7/>

We live in interesting times!

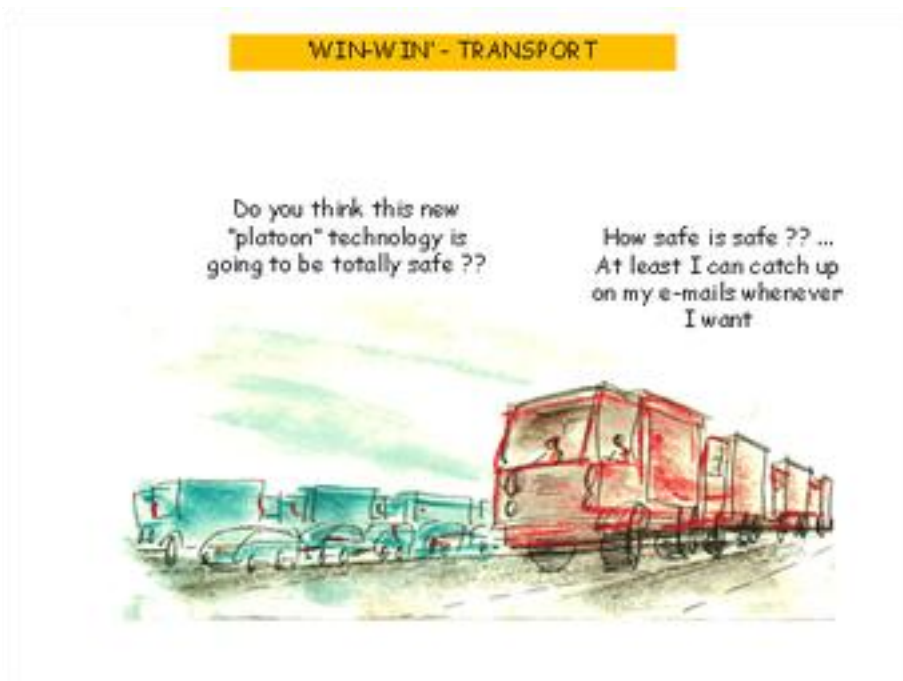
*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, published 30 January 2019*



Megatrends and how to survive them – Mobility

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**.

This is one of a series of blogs based on the work we have done for the book. We chose Mobility as a topic for discussion because people have always travelled over land and sea, later through the air and into space. Mobility of people and freight looks likely to continue to increase through the next decades, with major growth in air travel and passenger vehicles in Asia. Freight and goods transport may increase less due to localised manufacturing and changes in supply chains and trade wars.



The focus of this blog is automated (driverless) vehicles.

On land, freight traffic and trains will adopt autonomous vehicles before their wide use in passenger cars, and there are already many systems in operation. Some examples are:

- **In Singapore** there is a shortage of truck drivers and an ongoing requirement to transport containers between ports. This is being tackled with " platoons" of four trucks with a single shared driver, on public roads, in a three-year pilot from 2017. The approach is designed to build up public trust.
- From Perth, engineers manage autonomous trucks and trains connected with robotic drilling systems across Western Australia under the **Rio Tinto Mine of the Future programme**.



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- The first fully automated **driverless mass-transit rail network** is the **Port Island Line** in Kobe, Japan. The second in the world (and the first such driverless system in Europe) is the **Lille Metro** in northern France. The DLR, Barcelona Metro line 9 and Copenhagen Metro use trains capable of operating automatically at all times, including door closing, obstacle detection and emergency situations.
- , Air traffic globally is expected to increase at a rate which will depend on regulations and trade protectionism. The increase will be mostly in Asia, with internal traffic in China due to quadruple and in India to increase five-fold.

Not counted in the air traffic data is traffic from drones which are currently in use for instance in:

- Agriculture and land management, to look for signs of disease, examine crops or apply chemicals.
- Law and order – monitoring, and search and rescue after incidents.
- Smuggling drugs across borders.
- Atmospheric monitoring to improve weather forecasts.
- Tracking wildlife and combating poachers.
- Taking wedding photos from the air!
- Delivery of parcels by Amazon and others.
- So, for leaders, the questions to ask themselves and their organisations could include:
 - How will autonomous vehicles affect your supply chain? If the delivery of supplies to your premises is by autonomous vehicles, how will your goods inward people handle problems?
 - How can you keep contact and build the relationship with your customers if delivery to them is via automated vehicles?

We live in exciting times!

*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, 20 February 2019*



Megatrends: Transforming Energy

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**.

This is one of a series of blogs based on the work we have done for the book. This blog is about Transforming Energy, which focuses on both the way it is used (and how much) and where the energy comes from. None of the trends that we discuss operate on their own – they are all part of a larger system. This trend, in particular, impacts (and is impacted by) several megatrends: *Mobility* and *Economic Activity* (as well as *Population*) impact the demand for electricity, *Global Limits* and *Multi-polar Worldview* are impacted by the shifts in where energy comes from.

There are major transformations underway in the global energy sector. Where we get our energy from is changing, becoming diversified, with renewable energy becoming a much larger part of the mix. This pushes decentralisation which in turn will force the business models in the sector to transform.

The use of renewable energy will increase as the costs for its production come down. This leads to the cost of electricity, rather than the price of oil, becoming the key measure of energy costs.

As increasing numbers of people become middle class (using Hans Rosling's four levels, levels 3 and 4, numbering roughly 3 billion people), the demand for energy rises. Not just in order to produce and transport the goods that people aspire to buy, but also to allow them to exercise their choice to travel. This means that the demand for transport (of goods and people) rises from where we are today.

Changes in the pattern of where energy is sourced (and what energy is sourced) will undoubtedly affect global politics and *Multi-polar Worldview*.

Diversification of energy mix

The mix of fuels used to supply electricity is becoming decarbonised as it diversifies. Coal powered electricity plants are being taken off-line in the OECD and China is slowing growth of coal powered plants. In the global North, nuclear power is in decline in most countries due to costs of production and safety issues, as well as aging plants nearing the end of their life. But in other parts of the world, investment is large and ongoing (see figure below).



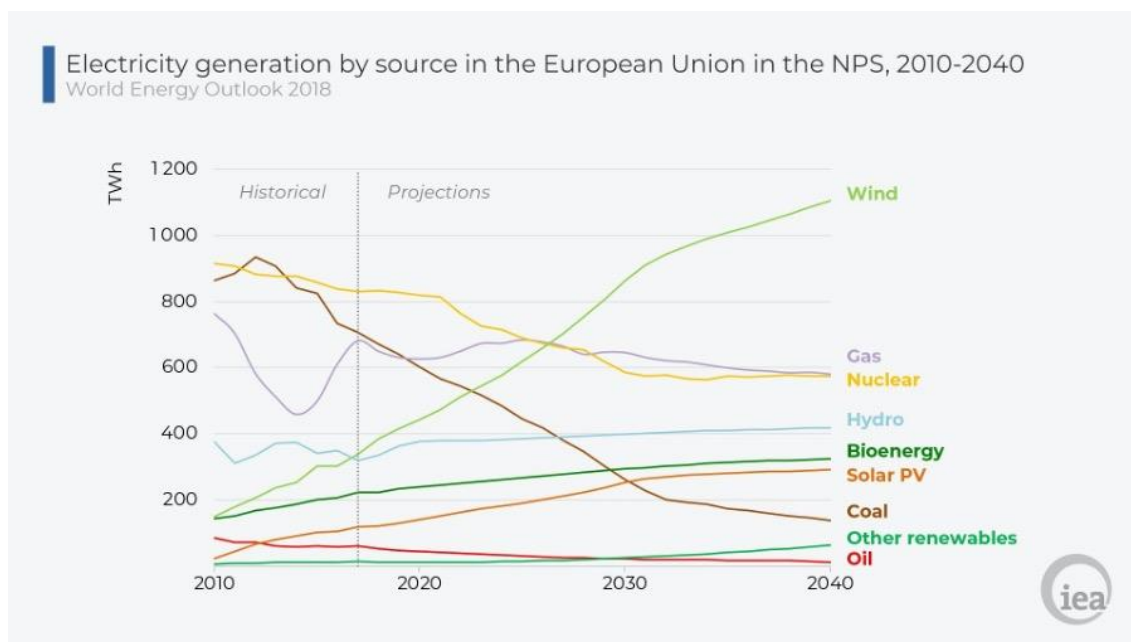
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Electricity production from natural gas is projected (in the figure below) to reduce very slightly out to 2040. Coal powered plants are being replaced by wind and solar energy: these sources are not always available and currently the ability to store electricity is limited.

Demand for energy

Demand keeps rising as we find more ways to use energy. While the requirement of liquid fuel for use in each internal combustion engine is decreasing (as engines become more efficient and there is a shift to other types of engine), the number of devices is increasing. The number of vehicles will increase as more and more people wish to travel and as more goods are required by increasing numbers of middle class. This will keep the demand for liquid fuel at about the same level as it is now.

There will also be increased demand from the Internet of Things (*Connected World*) and *The Next Technology Revolution*. Overall this means that the demand for energy will increase, perhaps substantially.



If we continue to diversify our energy sources, a new model will emerge to utilise these diverse sources and it is likely to contribute to a re-distribution of the current economic/political power among countries. As we said in the blog on *Multi-polar Worldview*, power follows the money. It may cause an economic downturn in areas that export oil. It may cause variations in pricing due to the intermittent nature of renewables. It paves the way for disruptive technology and new business models.



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Some questions that might be useful for you to explore:

- How will your business model need to change if the energy distribution model or pricing changes?
- Will you produce your own energy and/or buy it in?
- How will your products need to change to take advantage of the transformation of energy?
- What opportunities might the distributed energy production model offer you in community engagement?
- Some interesting articles in this area:
 - [**Energy mix in Europe to 2040**](#) (source of figure above)
 - [**New way to store energy**](#)
 - [**Outlook for self-generation of electricity**](#)
 - [**Nuclear energy statistics around the world**](#)

We live in interesting times!

*Written by Patricia Lustig, SAMI Associate and MD, ***LASA Insight***, and Gill Ringland, SAMI Emeritus Fellow and Director, ***Ethical Reading***, 13 March 2019*



Megatrends and how to survive them – the Connected World

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**.



This is one of a series of blogs based on the work we have done for the book. We chose *Connected World* as a topic for discussion because over the next decade the Internet of Things (IoT) will become ubiquitous, and many industries will be re-shaped. International platforms will offer economies of scale, be everywhere and underpin globalisation of the private sector. Big Data, whether relating to **individuals, money or IoT**, will be the subject of three-way power struggles over **ownership of data**. We discuss all of these in the book, and in this blog we raise the question of systems design for the connected world.

A **recent conference on the Connected World** had streams on a number of applications – Connected Homes, Smart Cities, Internet of Things, Smart Buildings, Utilities, Smart Cars. It had streams on technologies – 5G, Blockchain, Artificial/Augmented intelligence, Virtual and Augmented Reality. It had a stream on insurance and another on cyber security.

Taking these in turn, what could prevent the applications delivering on their promise? Three challenges that we can see, are not widely discussed. The first is the design and verification of embedded devices. These need to have fail-



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safe characteristics so that if, for instance, power is lost, they are able to close down safely. These disciplines have been applied in process control systems but may be lost in the transition to consumer applications. The second is the overall system design – a nightmare as smart cities evolve, with diverse networks added over time. Is there a school of computing tackling this? Third is “user error”. As populations age and their visual acuity reduces and response times increase, systems designed and tested by young men may have many users who do not understand the implicit rules and use the system in ways not anticipated by the designers. And as migration continues, increasing number of users will be unfamiliar with the systems and the language in which they are asked to navigate them.

The discussions around autonomous cars highlight another concern – the switch from people control to system control and back. As autonomous cars become more prevalent, how do we transition from person in control with assistance, to total computer control? The intermediate stage, with the computer in control until it asks for help from the human, does not sound wise. All of the technologies are likely to continue to be developed, led by consumer markets in Asia. This will raise concerns in the West about potential hidden spy features.

The last two, insurance and cyber security, raise in a more pointed form the issues which lurk beneath the success of the technologies and the applications to fulfil their potential: viz, the use of big data and the resilience and stability of these connected systems.

The use of big data as a tool for calculating insurance risk starts to raise the question of what is insurance for? If it is for sharing risk, how is this compatible with using big data to set premiums by post code – with big data on weather and crime; age and lifestyle – with big data on health outcomes; on personal genetics – with big data on genetic markers?

Cloud computing arrangements are becoming increasingly popular as organisations are attracted to the potential cost savings and enhanced flexibility that cloud computing services can offer. One of the most critical concerns of cloud computing is data security. Large scale scandals over breaches of security of cloud computing services could slow but not halt the use of ICT platforms.

Cyber-crime has a wider reach than just finance, as recent hacks into online services, health services and national security agencies have shown. However, most headlines are on crime relating to money, and here a recent survey by Kroll of 540 senior executives found that the majority of perpetrators of cyber-



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crimes were random criminals, ex-employees, competitors and employees. Less frequent were attacks by political activists, nation states or terrorists. However, these less frequent perpetrators may be the main threat for the IoT and for fraud relating to data. For instance, a hacker shutting a city down could lead to demands from citizens to go “off grid”.

Tackling cyber-crime when it crosses national boundaries is made more difficult in a *Multi-polar World*. Differing regulatory structures may lead to “Panama Papers” – databases outside any recognised regime and exposing individuals’ data to the world.

Questions for leaders:

- What impact will a fully monitored environment have?
- Cyber-attacks must be anticipated – what are your main sources of threat? What are your business continuity plans?
- What is the role of personal data in your organisation?
- How are you planning to scope out new types of competition?
- The *Connected World* allows for remote control – what effect might this have?

We live in exciting times!

*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, 27 March 2019*



Megatrends and How to Survive Them: The Next Technology Revolution

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**.

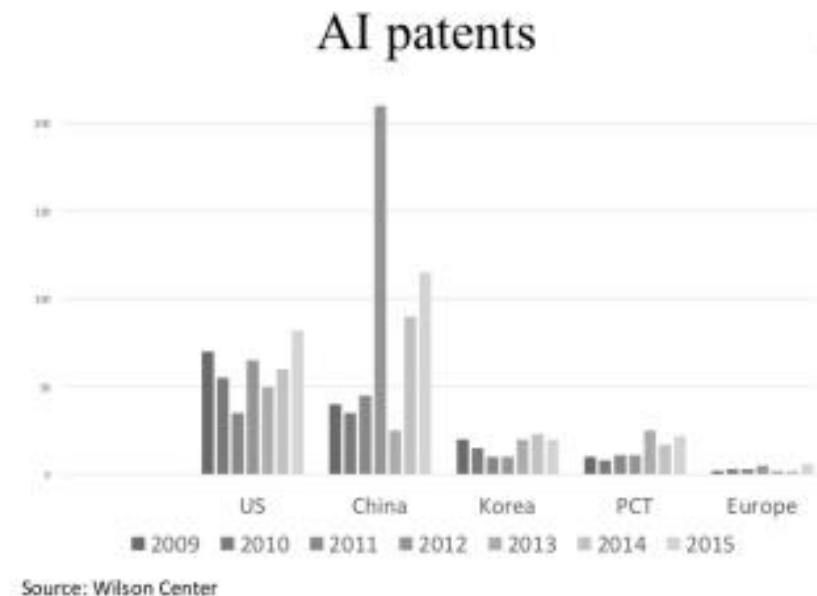
This is one of a series of blogs based on the work we have done for the book. This blog is about The Next Technology Revolution. This revolution covers advances in robotics, Artificial Intelligence (A.I.) and machine learning, advanced materials, biotechnology and genomics. Biotechnology and genomics are covered in the next blog in this series. We chose to focus on A.I. below because of the wide impact it will have across all organisations within our timeframe.

A.I. is embedded in many systems to solve business problems, from robotics and autonomous vehicles to 3D/4D printing and machine learning. It links into Big Data (the analysis of Big Data uses A.I.).

This trend has strong links with *Connected World*, of course, and it impacts *Social Structure* and *Economic Activity* as one of the drivers of change in society and the economy. Shifts in population – ages and densities – will have impacts on what kinds of A.I. need to be developed. *Migration and Urbanisation* will lead to smart cities with needs for different kinds of A.I. as well. Both of these will impact what is developed and likely, in what order.

Through the development of A.I. what was once science fiction is fast becoming reality. The **Qualcomm sponsored Tricorder XPRIZE was won last year**. A.I. will transform all aspects of our lives, from wars, crime and justice to our jobs, society and social structures. It will transform what it means to be human. A.I. is seen as “the new oil” because of its potential contribution to the world economy.

The evidence today is that the centre of gravity for A.I. research is shifting away from North America to China. At a recent annual meeting of the Association for the Advancement of A.I., which has been setting the standard since 1980, China submitted more papers than the USA and only three less were accepted. The figure below tracks the patents in A.I. across major patent agencies.



The use of A.I. in decision making – whether in embedded systems or in explicit decision-making tools for managers or front-line workers – can raise concerns in the global North about potential biases and assumptions which are built in, intentionally or not. Machine learning is very exposed to algorithmic bias, where the data used can reflect the implicit values (and unconscious biases) of the humans involved in the data collection, selection or use. It has been seen to have an **impact on search engine results, social media platforms, privacy and racial profiling**. Despite this, one-third of Americans have already said that they would **prefer a robot to a human boss**.

As A.I. becomes smarter than we are and becomes autonomous, it may not make the same decisions that we would, and we may not be able to figure out why it made the decision it did. AlphaGo made a move no-one could explain while beating the world champion. What might the implications be for this?

There are many areas of A.I. that will touch us by 2032. Some examples are:

- Many jobs will use A.I. assistance in some form. Already it is being used in surgery and in law.
- Pharmacies (and warehouses) can use robots to pick and pack medicines or stock.
- Cleaning and personal care is likely to be widely undertaken by robots and there is already a British Standard covering their use. As populations in some countries fall, there is likely to be an unfulfilled need for care which robots can take over. This is already beginning in Japan.



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Just as in any product or services, those that incorporate A.I. will go wrong on occasion, requiring specialist diagnostic tools and staff trained to do the diagnosis.

The impact on consumers and providers is likely to be high. As purchasing decisions are delegated to A.I. (e.g. food ordering from smart refrigerators, algorithms predicting which brands you will want to buy etc.), the way that companies reach their customers and engage with them will be transformed. Brands will be compelled to compete against each other electronically, but even within this space, these systems could reflect developers' biases or completely block out brands that actually meet the consumer's criteria. It will make it very difficult for companies to engage directly with their customers. Smart assistants and connected devices could even be influenced by sponsors who fund the applications, either openly (for the consumer) or not.

These are just some of the issues that may arise, and, in this blog we haven't looked at the ethics and decisions that will need to be made before we get this far; you will find more about that in the book.

Some questions that might be useful for you to explore:

- How might A.I. disrupt your business model?
- How will A.I. affect the skills of the people you will need?
- How will your customers relate to you if all services are automated?
- How will you deal with product or service failure due to A.I.?
- How might products and services supplied on a subscription model present new quality and safety challenges, as costs of failure will fall more on the supplier?

With thanks to David Smith of Global Futures and Foresight for his thoughts on a number of these aspects of A.I. – we live in interesting times!

*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, 10 April 2019*



Megatrends and how to survive them – biotechnology



Image by Gerd Altmann from Pixabay

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**.

This is one of a series of blogs based on the work we have done for the book. We chose *Biotechnology* as a topic for discussion because over the next decade advances in biotechnology will “challenge what it means to be human” as reported in the Financial Times of 3rd December.

Biotechnology offers **technological approaches for many of the health and resource-based problems facing the world**. The application of biotechnology to primary industries, to healthcare, and to industrial processes, could result in a sizeable **global “bioeconomy” by 2030**.

There will be a lot of publicity about health applications – personalised medicine, gene editing, synthetic biology and direct neural interfaces, and the recent publicity on the gene edited Chinese twins is only the start. Biotechnology will have a massive effect beyond 2030 and the ethical implications will be much clearer.

However, it could be that the big opportunity will be around rethinking agriculture and the food chain, and industrial processes – saving energy.



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Many of the potential advantages of biotechnology, such as salt-tolerant food crops, renewable energy sources like fuels based on algae, using organisms to neutralise or treat waste, and climate change mitigation, might happen faster than we think. A recent **OECD report highlighted the role of bio-plastics** for instance, in replacing those based on petroleum products.

Agri-business is big. Gene modification technology applied to animals and crops has created economies of scope and scale that have driven rapid corporate concentration. Genome editing – using CRISPR/Cas9 and tools to come – could become commonplace and lead to improved – and also to new – crops. Recent discussions on using DNA from fossils in the tundra to generate new life forms, raise the spectre of Jurassic Park.

Jurassic Park

On a remote jungle island, genetic engineers have created a dinosaur game park. An astonishing technique for recovering and cloning dinosaur DNA has been discovered. Now one of mankind's most thrilling fantasies has come true and the first dinosaurs that the Earth has seen in the time of man can emerge.

But there is a dark side to the fantasy and after a catastrophe destroys the park's defence systems, the scientists and tourists are left fighting for survival..... Source: Michael Crichton's "Jurassic Park".

The main markets for biotechnology in primary industries (agriculture, forestry and fishing) could be in developing countries, due to the importance of primary production and industry to their economies.

There are a number of ventures developing food products using vegetable proteins to mimic more accurately the meaty, cheesy and creamy flavours of food derived from animal proteins. These products target the majority of meat-eating consumers, not just committed vegetarians. Using gene editing techniques to insert animal protein genes into food plants, offers the prospect of more convincing and delicious plant-based substitutes for animal proteins – “better than beef”.

If successful, these companies would create disruptive innovation across the human food chain, with profound consequences. As the ecological footprint of vegetable products is typically one tenth that of animal-based food, these innovations suggest the possibility of a sustainable path to feeding a global population exceeding 9 billion within our water limits.

Questions for leaders:



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- How will agricultural/primary industries biotechnology affect you?
- How will health biotechnology affect you?
- How will industrial biotechnology affect you?
- How will you handle the ethical issues around employment and insurance cover which will be a side effect of genomic testing?
- How will you answer Millennials and other generations who will ask about the ethical issues of biotechnology in relation to your people and products and services?

We live in exciting times!

*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, 1 May 2019*



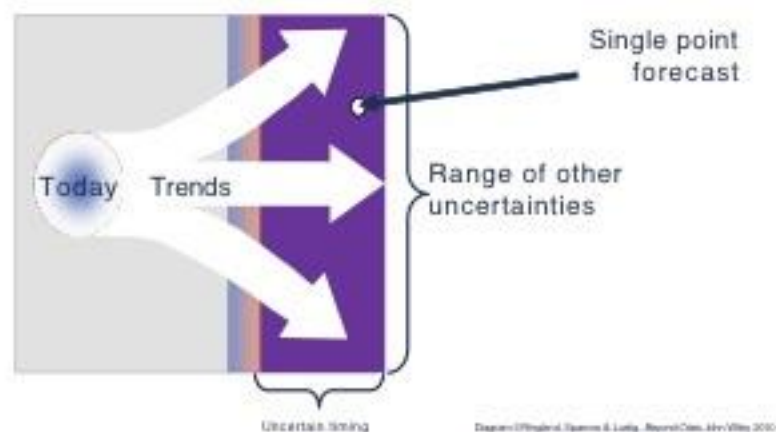
Megatrends and how to survive them – conclusions

Megatrends and How to Survive Them is the title of our book published by **Cambridge Scholars Publishing** and available on **Amazon**. This is the last of a series of blogs based on the work we have done for the book.

Our focus in the book was on global megatrends that would play out during the time span of an organisation's planning. It wasn't about the Star Trek, 100 year in the future type of predictions (or science fiction to be more exact).

Trends can emerge in many different ways; we have suggested a particular way that each megatrend might go. But, a reminder that trends are not forecasts!

Trends are not forecasts



A forecast is a single point in time, a prediction. Usually with a note of the percentage possibility to hit the prediction. Also it is usual that these forecasts are no more than 9-12 months in the future. Philip Tetlock ran a research project called “The Good Judgement Project” to see what sort of person could make good predictions. You can find out more about it in his book, *Superforecasting: the art and science of prediction*.

We had to make generalisations of each of the trend to keep them accessible. We supplied a list of questions (some of which we've repeated in the previous blogs) to help people to go deeper into each of the trends, to explore in more detail just how they might emerge and, indeed, what could disrupt them.



The underlying theme across all the trends is that an increasing number of people across the world are able to make choices – in lifestyle, in where and how they live, in what they buy. These choices are driving innovation, society, technology and the economy, as well as impacting our global limits and climate.

Exploring these trends and how they might play out, however, is only a first step. There are several more before you can develop options, decide on a strategic direction and implement a new strategy.

We suggest three provisos:

- Beware of cognitive biases. There is plenty going on in peoples' lives; cognitive biases help us to deal with information overload, lack of meaning, the need to act (react) quickly and they can help us to remember things. They are assumptions which we base thinking and decisions on.
- Be cognisant of the fact that many people find change threatening, so change management is needed. Change is facilitated by using images of the future which can be built to be relevant to your organisation and can be based upon these megatrends.
- Trends are not independent, they are part of complex systems, so when thinking about how to respond and what you might do to influence a particular trend, you need to consider it in the context of the larger system. Any action that you take may have delayed effects on one or another of the trends.

The most important thing that you can do with these trends is to explore them and stimulate a different sort of conversation, a different and deeper understanding of how they may affect your organisation and the work you do in the coming 10 – 15 years. And of course, what the opportunities (and risks) might be going forward.

The future is a foreign country – enjoy the exploration.

*Written by Patricia Lustig, SAMI Associate and MD, **LASA Insight**, and Gill Ringland, SAMI Emeritus Fellow and Director, **Ethical Reading**, 15 May 2019*