

***The Future of Work:
Artificial Intelligence (AI) in the Workplace***

A BusinessFirstNZ Workshop Report

Held 21st November 2023
in The Refectory, Massey University
Facilitated by Associate Professor David Brougham,
with Dr Jennifer Scott, Dr Wayne Macpherson,
and Dr Kazunori Kobayashi from the School of Management

March 2024

Executive Summary

This report summarises the fourth *BusinessFirstNZ* workshop for 2024, and 17th in the series, hosted by the Massey Business School to engage local businesses. The initiative seeks to assist business leaders to highlight business problems and seek practical solutions in their pursuit of business excellence and sustainable competitive advantage.

In this half-day workshop, Associate Professor David Brougham from the School of Management gave attendees an overview and update of AI before helping them explore how it can be used in their working and daily lives for greater efficiency, effectiveness, and ultimately productivity. David drew on his expertise and research in the future of work to take participants through an afternoon of considering how emerging technologies might impact their workplace.

The focus of the workshop was supporting attendees to think about the challenges and opportunities their business is likely to face in the next ten years, the jobs that might be automated in their industry, and to focus on the future of automation in their line of work.

Highlights of the workshop included:

- An overview of disruptive technologies, their impact on companies, and understanding the adoption of new ideas, products, and activities
- Discussion on the different ways businesses already engage with AI tools, such as ChatGPT
- Brainstorming about the ways in which businesses might use AI tools in the future
- Implications for businesses as AI tools continue to become more mainstream

Other highlights and contact

We would also like to draw your attention to our latest industry report titled, “[Engaging Business and Academia](#).” This report highlights the development and refinement of the *BFNZ* initiative to facilitate engagement among the business and academic communities in New Zealand’s lower North Island regions. It includes reflections at key points across the four years and 16 workshops that have comprised the initiative, including input from business professionals obtained through two surveys. This provides proof-of-concept for facilitating engagement among business professionals and academic staff and provide information about future pursuits.

More information on past [workshops and associated reports](#), our [earlier major industry report](#), and two pieces in *The Conversation* ([here](#) and [here](#) for quick reference) can be found on our [webpage](#).

If you have any questions or would like to suggest or request any specific workshops, please contact the BusinessFirstNZ team at bfnz@massey.ac.nz.

1. Businesses in Attendance

The *BusinessFirstNZ* workshops afford businesses time and space to engage with other local businesses and academic staff with expertise in various business disciplines. With a focus on advancing engagement and advancing business prosperity, these workshops support business leaders to explore challenges and opportunities in the current environment, and work through practical solutions supported by cutting edge research findings.

Across the *BusinessFirstNZ* workshops to date, the following business have been represented:

Business	Sector	Business	Sector
Advantage	IT Support	Genoese Foods	Food Preparation
AFC Motorcycles	Powersports Products	Gillard Honey	Honey Production
Ali Arc Industries	Structural Metal Fabrication	Gropak	Agricultural Services
Avatar Honey	Honey Production	Henergy	Poultry Products
BakerAg	Agricultural Services	JR's Orchards	Apple and Pears
Bed Barn	Household furniture	Manawatech	Tech NPO
Betacraft NZ	Workwear	NZ Delphiniums	Horticulture
Business Central	Business Development	OBO	Sports Protection
Carousel Confectionary	Confectionery Manufacturing	Palliser Estate	Winery
Cartwheel Creamery	Cheese Products	Plumbing World	Plumbing
CEDA	Economic Development	Prepack	Packaging
Cyber Consulting	Online security and Networks	Property Brokers	Real Estate
E&T Consultants	Education & Training (E&T)	Quest Industries	Plastic Moulding
ExportNZ	BusinessNZ Division	Speirs Foods	Food Preparation
FieldAir	Aviation Engineering	Steelfort	Machinery & Equipment
Flamingo Scooters	Scooter Sharing	Tasman Tanning	Leather Products
Gallagher Fuel Systems	Fuel Dispensing Systems	Toyota	Mobility
Garden Barn	Garden Supplies	Turks Poultry Farm	Poultry
GasNet	Gas Delivery	UCOL	Education

2. Workshop Overview

Associate Professor David Brougham, led this workshop, guiding attendees through consideration of the future of work, with a focus on how new technologies might impact the business landscape. Acknowledging the vast array of technologies, David helped refine the focus of the workshop by introducing the concept of emerging technologies, before supporting discussion that focus on how these new ideas and tools might change the nature of work. David drew on his research expertise in the areas of automation, robotics, and artificial intelligence to help attendees focus on how they might adapt within their business because of technological changes.

Attendees were first introduced to key concepts as a large group, before breaking into small discussion groups to focus on how the ideas aligned with their own experiences. David supported attendees to explore the disruptions that their business might face over the next 1, 5, and 10 years, while discussing how to make sense of the future. Attendees were challenges to consider the types of jobs that could be automated in their industry or line of work as well as the parts of their business that could be outsourced or automated. Following large and small group discussions about the impact of new technology, including media hype about new tools, on business, David helped the group consider the relationship between computers, automation, and the future of employment.

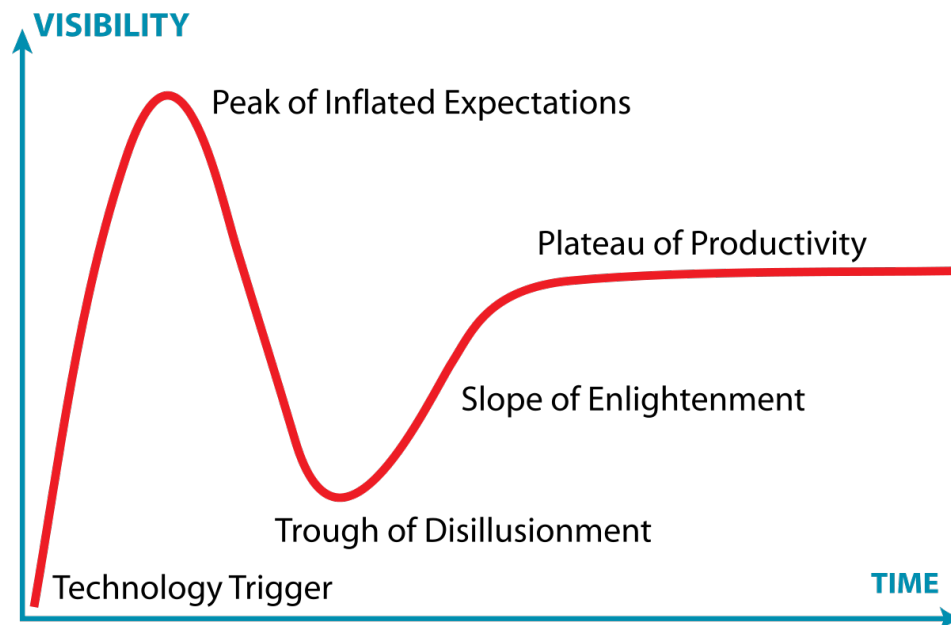
To help attendees consider the impact of technologies on their company, David reminded the group of Porter's value chain – to look at both primary and support activities across the organization as shown below. Where primary activities are those that relate to the creation of a product or service, secondary activities support the primary functions. Attendees then worked through considering the value chain within their own business and against potential technologies, to determined which activities are creating direct value, which activities support the smooth operation of creating the product or service (the value), and which activities ensure that quality assurance is retained throughout. David also helped them identify where technologies could support their work to enhance value creation, without threatening their operations.

Figure 1: Porter's Generic Value Chain



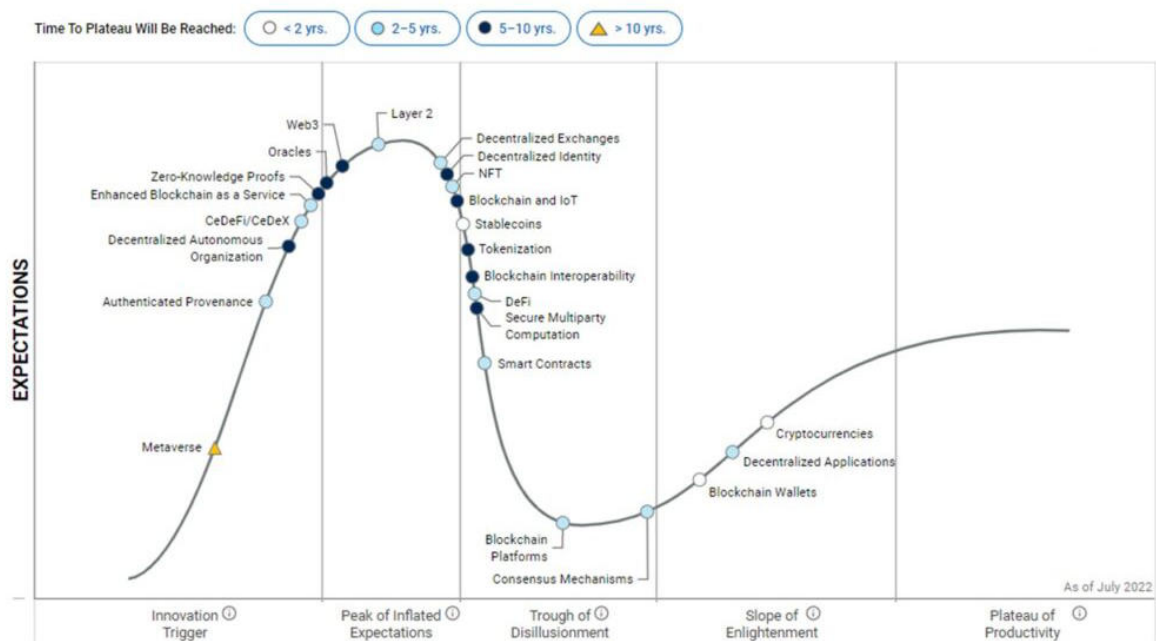
Notably, as attendees considered how technologies might impact their value chain, the discussion focused on how businesses could leverage new and emerging technologies rather than worry about technologies making jobs obsolete. The group also considered the 'hype cycle' of emerging technologies, to understand the timeframe for new tools to become mainstream and add to productivity. After introducing the standard technology adoption and hype cycle curve shown below,

David helped attendees consider more specific technologies that might be on the horizon for their industry.



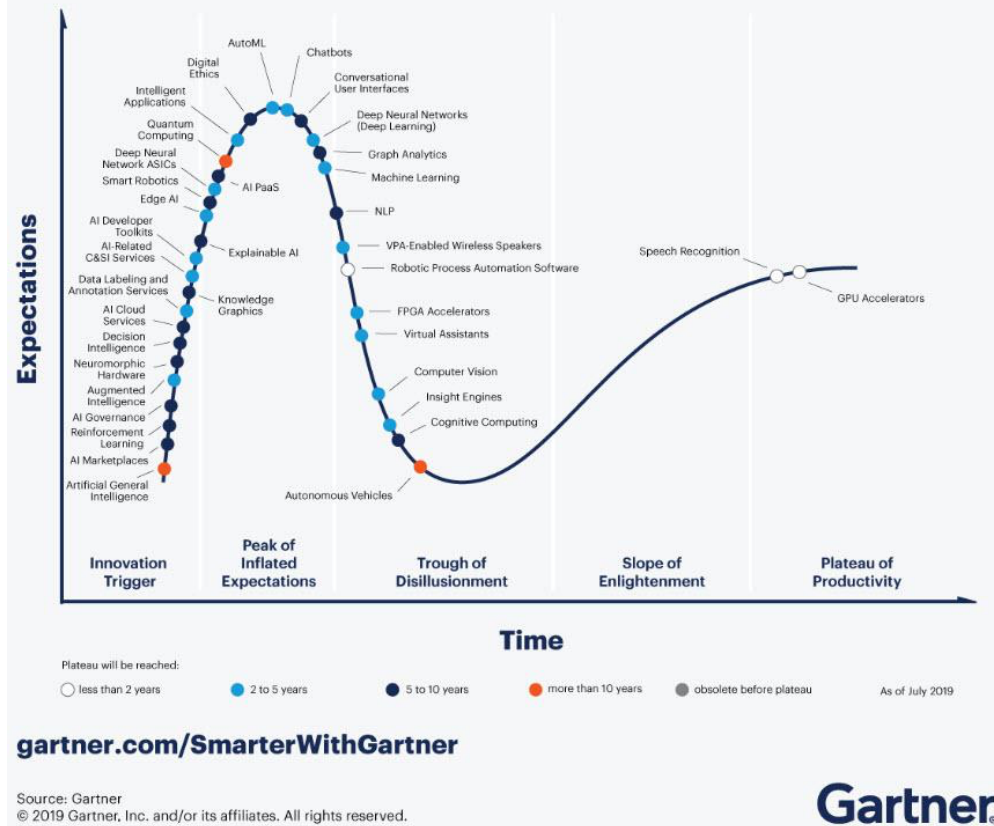
David used Gartner hype cycle images to help attendees understand this further, with examples shown below:

Gartner blockchain, web3 hype cycle 2022



Source: Gartner

Gartner Hype Cycle for Artificial Intelligence, 2019



When the conversation focused on AI tools in the workplace, attendees offered several examples of the ways in which they have engaged with generative AI tools, such as ChatGPT. Some examples included:

- Marketing – to support website development through creation of graphics
- Acting as a colleague or critical friend – having a conversation to dig deeper into concepts – like emailing a friend or colleague to dig into ideas – “I’m thinking about doing it this way – do you have any examples?” and then keep going back and forth to explore further
- Strategy development - giving all the information about this is who we are, our turnovers, our goals, then ask what steps to suggest setting a strategy – 10 step list and can dive deeper into particular steps to take – get the creative juices going – get some confidence that there are things to do to get things done – don’t have to feel so alone
- Scenario building – putting a model as input and then adding scenario details – then ask for outputs on the basis of the model examples – then ask it to answer you on the basis of a model – scenario building
- Preparing for meetings – mimicking conversations and questioning with people before meeting in real life – go into a meeting ready and aware of what could be asked
- Leveraging background knowledge that is limited – for example if your background is finance not marketing, end especially not social media – working through iterations to develop a social media plan for 3 months
- Coding – overcoming problems that coders cannot do

There was also discussion of standards, policies, and procedures that organizations might want to be mindful of. Specifically, some attendees suggested education and training for staff on what they can and cannot put into the tools and how a company's firewall setting might interact with the tools. There was also discussion on New Zealand's public sector procedures for the use of generative AI and ensuring that all standards across supply chains are adhered to.

The idea of prompt engineering – or asking good questions to ensure good outputs – was raised. There were also requests for a workshop that delved deeper into the actual use of generative AI tools, which is being addressed at the first 2024 workshop.

The group ended the day by considering implications. David showed the group how researchers in the area of future of work have been considering the impact of technologies for decades, and offered the following final suggestions:

- Individuals will need to plan their careers in the face of potential changes based on their own knowledge of their job and industry but be conscious about where the information (hype) is coming from – make informed decisions.
- Employees and employers should think about repetition and complexity – to leverage technologies for productivity where tasks can be automated.
- Think about the future from the future – how can future skills such as mental elasticity, complex problem solving, critical thinking, people skills, and interdisciplinary knowledge be leveraged.
- Be caution of confirmation bias – keep the dialogue going but don't get stuck in a self-fulfilling prophecy that will result in skill shortages.

3. Proposed Next Steps

To continue our engagement among the business school and business community, as we seek to support business prosperity in NZ, the following workshops are planned for 2024:

Workshop	Overview	Logistics
Artificial Intelligence Unleashed: Harnessing Power, Protecting Assets	Massey's business librarian, Katherine Chisholm, will guide us through what to ask for and where to look as we delve into the world of AI and discover how to utilise its potential for business success.	Date: April 8 th Time: 1:30pm to 5:00pm Charge: \$25 + fees Registration: https://bit.ly/BFNZAIUnleashed
TBC	TBC	Date: June 18 th Time: 1:30pm to 5:00pm Charge: \$25 + fees Registration:
TBC	TBC	Date: August 27 th Time: 1:30pm to 5:00pm Charge: \$25 + fees Registration:

Workshop	Overview	Logistics
TBC	TBC	Date: November 19 th Time: 1:30pm to 5:00pm Charge: \$25 + fees Registration:

Thank you

We would like to thank you for your continued participation in these workshops, and welcome any feedback, comments, ideas, or questions you may have. Please note, if there are any issues or amendments required, we would greatly appreciate your feedback on this report. Feel free to contact the *BusinessFirstNZ* team via Dr Wayne Macpherson, bfnz@massey.ac.nz.