





Artificial Intelligence Unleashed: Harnessing Power, Protecting Assets

A BusinessFirstNZ Workshop Report

Held 8 April 2024
in The Refectory, Massey University
Facilitated by Ms Katherine Chisolm,
with Dr Wayne Macpherson and Dr Jennifer Scott
from the School of Management

Executive Summary

This report summarises the first *BusinessFirstNZ* workshop for 2024, and 18th in the series, hosted by the Massey Business School to engage local businesses. The initiative seeks to assist business leaders in highlighting business problems and seeking practical solutions in their pursuit of business excellence and sustainable competitive advantage.

In this half-day workshop, Ms Katherine Chisholm, Business Librarian at the Manawatū Campus, gave attendees an overview and update on the power and pitfalls of artificial intelligence (AI) in the workplace. The workshop focused on finding the right information, knowing what to ask for, and where to look. Attendees delved into the world of AI and discovered how to utilise its potential for their businesses. The workshop covered prompt engineering, navigating copyright intricacies, and harnessing quality information to stay ahead of the curve.

Key takeaways from the workshop included:

- 1. **Prompt Engineering**: Crafting clear, specific, and adaptive prompts is essential for getting relevant and accurate information from Al tools.
- 2. **Quality of Information**: Al-generated information can be unreliable, and it's crucial to fact-check and verify sources before acting on it.
- 3. **Context and Clarity**: Providing context and being explicit about what you want to achieve is vital for effective AI assistance.
- 4. **Cyber Security**: Al tools can pose significant cyber security risks, and organizations must prioritise information protection and access control.
- 5. **Ethical Considerations**: Al use raises ethical concerns, such as potential damage to reputation and privacy breaches, requiring due diligence and adherence to codes of ethics.
- 6. **Human Mediation**: Al tools should be used in conjunction with human oversight and fact-checking to ensure accuracy and reliability.
- 7. **Information Overload**: Be cautious of information overload and AI hallucinations, which can lead to incorrect information and poor decision-making.

Other highlights and contact

We would like to draw your attention to an article, "<u>Business development the focus of a new micro credential</u>," recently published by Massey University about your facilitators, Wayne Macpherson and Jennifer Scott, who have developed and are now delivering a new micro credential course on <u>SME Business Development</u> in Palmerston North and Whanganui. This is the first of a series of proposed new short courses designed to support local business people to work *on their business rather than work in their business*.

More information on past <u>workshops and associated reports</u>, our <u>first industry report</u>, <u>second industry report</u>, and two pieces in The Conversation (<u>here</u> and <u>here</u> for quick reference) can be found on our <u>webpage</u>.

If you have any questions or would like to suggest or request any specific workshops, please contact the <code>BusinessFirstNZ</code> 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	ОВО	Sports Protection
Carousel	Confectionery	Palliser Estate	Winery
Confectionary	Manufacturing		
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	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	Fuel Dispensing	Toyota	Mobility
Systems	Systems		
Garden Barn	Garden Supplies	Turks Poultry Farm	Poultry
GasNet	Gas Delivery	UCOL	Education

2. Workshop Overview

Massey Business School librarian Ms Katherine Chisolm guided attendees through the new yet ever changing field of artificial intelligence. While past BFNZ workshops have looked at the what and how of AI, this workshop focused on the means to get the best quality output for the user. Attendees found the discussion relevant, whether they were already utilising AI for business, considering its future use for their business or for general use.

Katherine drew attention to the need for quality outputs, which result from quality inputs. In the case of using AI, this introduced a new and necessary skillset of developing these quality inputs, or what has been termed **prompt engineering**. This term refers to the commands the user uses to communicate with the AI platform they are using whether it be OpenAI's ChatGPT, Microsoft's CoPilot, Google's Gemini, or other such (chat)bots. The prompt itself is what you write into the box when interacting with the platform, while engineering refers to the development of the prompt. Prompt engineering becomes the art of writing prompts to get the best results; they are descriptive, in a language AI understands, and able to direct the platform to provide relevant outputs.

Attendees learnt that prompts have two necessary parts: the instruction or question and the context. For example, "Create a list of tasks that need to be completed, along with a timeline for their completion, in order to launch a redesigned website for a dental office." Roles can also be assigned to the AI platform to improve style or show approach required, "You are an auditor. Give me a list of 5 things you would look for in checking my accounts."

Prompts tend to have five main principles that need to be considered, or followed, when prompt commands are being written, which can be remembered using the acronym CLEAR. This acronym directs the user to be:

- Concise There should be brevity and clarity in prompts.
- Logical Prompts should be structured and coherent.
- Explicit Prompts should have clear output specifications.
- Adaptive There should be flexibility and customisation in prompts.
- Reflective Individuals should be able to review and revise their prompts following initial outputs.

Importantly, when crafting prompts, attendees were reminded to be flexible and willing to attempt new approaches based on the performance of the AI model. That is, they should not simply use the first output, but review both the input and output to enhance the quality of information.

Attendees recognised the need to utilise AI to enhance business processes through **quality information** (output) provided by the AI from quality prompts (input). Attendees attention was drawn to the very important case of AI 'hallucinations' which occurs when the AI *produces something that sounds plausible but is wrong.* Attendees were introduced to the new term of 'botshit' which occurs when inaccurate information generated by AI is passed on by humans. We now have the case where "...there is a concern that this technology will reduce the cost it takes humans to bullshit to zero while not lowering the cost of producing truthful or accurate knowledge" (Hannigan et. al., 2024, p. 2).

To help attendees consider how this might impact them in their organisation, they were asked two questions:

- 1. What's the worst that can happen if I act on incorrect information?
- 2. How hard is it to see and fact-check a bot's output?

These questions were discussed in small groups before the lager group shared their experiences in a large-group discussion. Importantly, this drew attention to the fact that not everything you read is factful and users need to judge the accuracy and usefulness of all output from AI prompting.

The workshop introduced a matrix diagram that considers response veracity against response veracity verifiability and details the different approaches to utilising AI in the workplace.

	Authenticated chatbot work	Automated chatbot work	
Crucial	Users skeptically submit tasks to chatbots and then meticulously verify responses for factual accuracy, logical coherence, and truthfulness.	Users systematically assign routine and standard tasks to chatbots and then use responses for efficient and detached execution.	
	Examples include legal, safety, and budgetary tasks.	Examples include application assessment and selection tasks.	
Response			
veracity importance Unimportant	Augmented chatbot work	Autonomous chatbot work	
	Users openly prompt chatbots to generate ideas and concepts and then evaluate, organize, combine, and select from the	Users selectively delegate tasks to chatbots with domain training and expertise and then allow the chatbots to learn and adapt.	
	generated responses.	Examples include support and	
	Examples include brainstorming and idea- generation tasks.	assistance tasks.	
	Difficult to verify	Easy to verify	

Response veracity verifiability

(Hannigan, T. R., McCarthy, I. P., & Spicer, A. (2024). Beware of botshit: How to manage the epistemic risks of generative chatbots. *Business Horizons*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4678265

Katherine facilitated discussion to help attendees understand the matrix by offering the scenario: Imagine you have an AI chatbot that can help you with different tasks. The matrix shows four different situations based on two important factors:

- 1. Response veracity verifiability (on the x-axis): This means how easy or difficult it is to check if the chatbot's answers are correct.
- 2. Response veracity (on the y-axis): This means how important it is for the chatbot's answers to be accurate and truthful.

The four situations are:

- 1. Authenticated (top-left): It is very important for the chatbot to give accurate answers, but it is hard to check if the answers are correct. Users should carefully submit tasks and meticulously verify the chatbot's responses to ensure accuracy and avoid mistakes.
- 2. Automated chatbot work (top-right): It is still very important for the chatbot to give accurate answers, but it is easier to check if the answers are correct. Users can assign routine and repetitive tasks to the chatbot, but they should still use human training to improve the chatbot's responses over time.
- 3. Augmented chatbot work (bottom-left): It is not as important for the chatbot to give perfect answers, and it is also hard to check if the answers are correct. Users can generally rely on the chatbot to generate ideas and concepts, but they should evaluate, organise, and select the best responses based on their own judgment.

4. Autonomous (bottom-right): It is not very important for the chatbot to give perfect answers, and it is easy to check if the answers are correct. Users can confidently delegate routine tasks to the chatbot, allowing it to learn and adapt over time. Examples include support and assistance tasks.

The workshop also covered the importance of protecting quality information, such as client, customer, or employee information, business processes, intellectual property, and financial information. The big risks associated with AI, including scams and data privacy, were discussed.

Copyright was another key topic addressed in the workshop. Attendees learned about copyright basics, such as automatic protection upon publication, applicability in digital and physical form, and the balance between creators' rights and others' interest in using that work. Changes in agreements related to AI use were also discussed, including warranties, ensuring non-violation of intellectual property rights, disclaimers, and licensing.

The workshop emphasised the importance of understanding AI's capabilities and limitations, developing AI literacy, and implementing responsible AI practices to mitigate misinformation and disinformation risks. By adopting strategies such as developing AI literacy, implementing AI governance, fact-checking and verifying, using AI tools responsibly, and prioritising cyber security, organisations can harness the potential of AI while minimising its risks.

The group ended the day by considering the implications of not being fully aware of the pitfalls of AI utilisation in business. Katherine presented attendees with recommendations to ensure their own and business safety:

- 1. **Develop AI literacy**: Educate yourself and your organisation on AI capabilities, limitations, and risks.
- 2. **Implement AI governance**: Establish clear guidelines, protocols, and codes of ethics for AI use.
- 3. **Fact-check and verify**: Always fact-check and verify Al-generated information before acting on it.
- 4. **Use AI tools responsibly**: Utilise AI tools for brainstorming, idea generation, and tasks that don't require factual accuracy.
- 5. **Prioritize cyber security**: Ensure robust information protection and access control measures are in place.

Most notably, the workshop emphasised the importance of understanding AI's capabilities and limitations, developing AI literacy, and implementing responsible AI practices to mitigate misinformation and disinformation risks. By adopting these strategies, organisations can reap the benefits of and protect themselves from the pitfalls of current and future AI. However, as AI continues to evolve, it is crucial to stay informed and adapt to new challenges and opportunities.

3. Proposed Next Steps

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

Workshop	Overview	Logistics
Build Back Better	This workshop will equip business professionals with the tools to build resilience, adopt lean strategies, and future-proof their businesses—enabling them to not only survive but also thrive in the face of adversity. Don't miss this opportunity to strengthen your business for the future.	Date: June 25 th Time: 1:30pm to 5:00pm Charge: \$25 + fees Registration:
In Pursuit of Business Excellence	Embark on a journey to business mastery with Massey Business School's PhD candidate, Atif Baig. This workshop will unveil his Organisational Excellence Architecture—a practical toolkit tailored for SMEs in New Zealand, designed to catalyse business transformation.	Date: August 27 th Time: 1:30pm to 5:00pm Charge: \$25 + fees Registration:
A New Way Forward	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, bfrz@massey.ac.nz.