Welcome

Understanding AI: Wayfinding in the new world of techenabled investing.



26 SEPTEMBER 2023

Generative Al

Dr. Amanda Williamson Mariette van Niekerk



What do you think of when you think of AI?



Scope for today



Generative AI 101



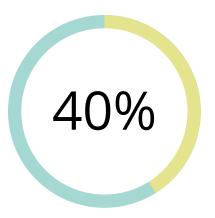
Managing risks and responsible AI



Art of the possible

- Content creation
- Al Assistant
- Personalised Service

Productivity Enhancer

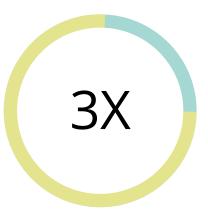


New **productivity** improvements realised in writing, research and coding, in 2023

Impacting key industries



A way of life for 'Generation Al'



Younger workers are three times more likely to use Gen AI compared with mid **career workers**

https://datacom.com/nz/en/discover/articles/nz-companies-split-on-ai-adoption-lack-of-policies-poses-risk

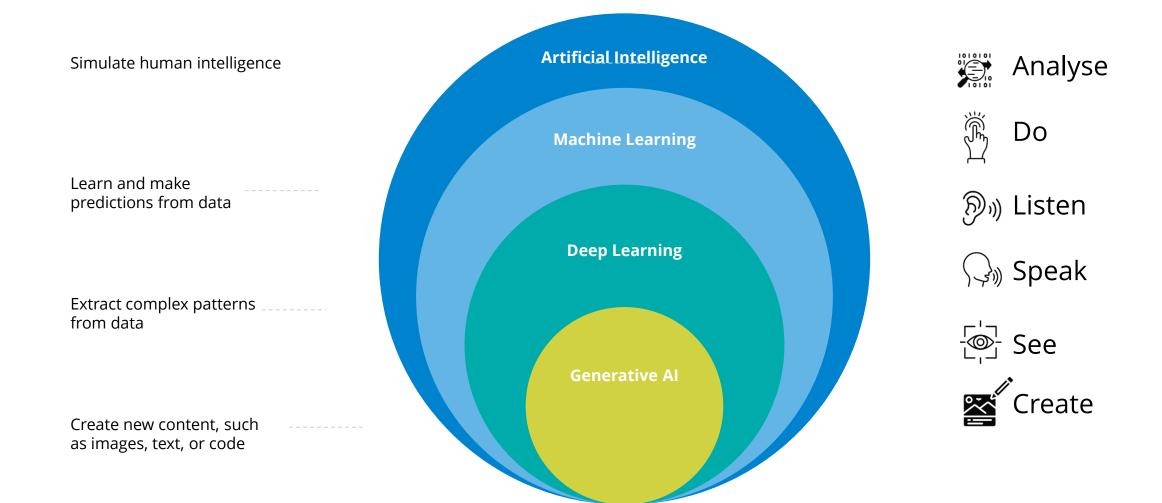


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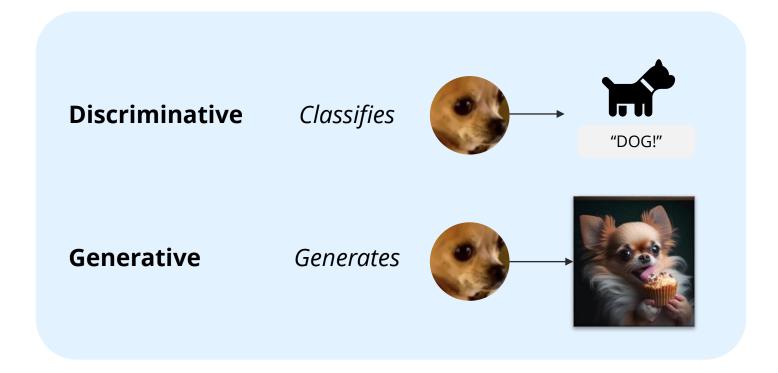
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What is it? Computer systems performing tasks typical of *human* intelligence

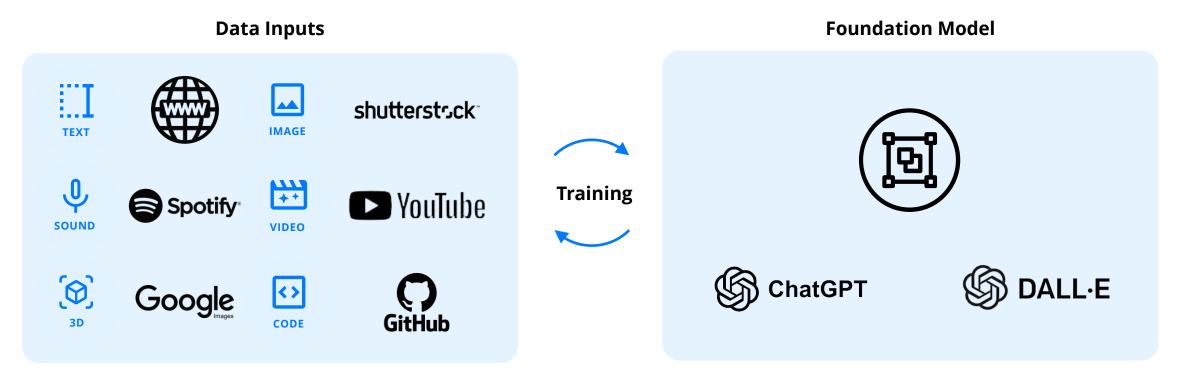


Generative AI changes the economics of implementing AI

Foundation models are more accessible as they require less upfront cost and data compared to traditional machine learning models



Foundation Models are created from massive datasets



Involves learning the fundamental patterns relevant to input, to manufacture similar content.

Managing risks and responsible AI



What can go wrong with Al?

Tay, Microsoft's AI chatbot, gets a crash course in racism from Twitter

Attempt to engage millennials with artificial intelligence backfires hours after launch, with TayTweets account citing Hitler and supporting Donald Trump



Meta Al Bot Contributed to Fake Research and Nonsense Before Being Pulled Offline

Share 🕜 💟 🥳 Nikki Main Published 4 months ago: November 23, 2022 at 8:25 am - Filed to: ACADEMICDISCIPLINES 🗸



AINEWS



Medical chatbot using OpenAI's GPT-3 told a fake patient to kill themselves





Advanced Al is exciting, but incredibly dangerous in criminals' hands

Al Image Generators Routinely Display Gender a Cultural Bias

One researcher's simple tool shows how Stable Diffusion depicts stereotypes such as all-male engineers and 'modest' i

By Kyle Barr | Published November 1, 2022 | Comments (20) | Alerts



Key Risks of GenAl

Risks As with any technology, GenAl can pose certain risks to be aware of





Algorithm Governance – International context

International

- OECD Principles on A1(2019)
- Global Partnership on AI(GPAI)
- IOSCO Consultation Report: Mechanisms for Trading Venues to Effectively Managing Electronic Trading Risk(2015)
- IOSCO Consultation Report: Guidance of Cyber Resilience for Financial market Infrastructure(2015)
- IOSCO Consultation: Mechanisms Used by Trading Venues to Manage Extreme Volatility and Preserve Orderly Trading(2018)
- FX Global Code of Conduct(2017)
- Anti-Discrimination Laws
- Employment Rights

North America

- Consumer Privacy Protection Act(Canada)
- Algorithmic Accountability Act(proposed)
- FDA White Paper Proposed Regulatory Framework for Modifications
- SR11-7: Guidance on Model Risk Management(2011)
- FINRA Regulatory Notice15-19;16-21
- CSA National Instrument 23-103: Electronic
 Trading
- IIROC Notice on Provisions Respecting Electronic Trading(2012) to AI/ML based software(2019)
- California Consumer Privacy Act(CCPA)(2020)
- SEC Rule 1Sc3-5 Market Conduct
- DFS Life Insurance Circular Letter

EMEA

- EU Artificial Intelligence Act (2021)
- General Data Protection Regulation (2016)
- MiFID II RTS 6 (2017)
- Digital Service Act (2020)
- BaFin Circular 06/2013 (BA) Requirements for Systems and Controls for Algorithmic Trading and Institutions
- BaFin High Frequency Trading Act Market Abuse Regulation (2016)
- Central Bank of Bahrain Digital Finance Advice Directive (2019)

APAC

China

• Provisions on the Administration of Algorithms Recommendations for Internet Information Services (2022)

Singapore

- Singapore MAS Technology Risk Management Guidelines (2013)
- Personal Data Protection Act (2012)

New Zealand

- The Privacy Act (2020) and Algorithm Charter (2020) Japan
- Personal Information Protection Commission (2016)

Australia

- The Consumer Data Right(CDR) FOR Energy (late 2022)
- Australia's Artificial Intelligence Ethics Framework(2019)
- Digital NSW AI Strategy; AI Ethics Policy and AI Assurance Framework(2022)
- The Privacy Act(1988)
- Competition and Consumer Act(2010)
- Australian Human Rights Commission Using artificial intelligence to make decisions: Addressing the problem of algorithmic bias(2020)
- Australian Competition and Consumer Commission(ACCC) Preliminary Report on Digital Platforms recommending an 'Algorithms Regulatory Authority' (2019)

Colour Code

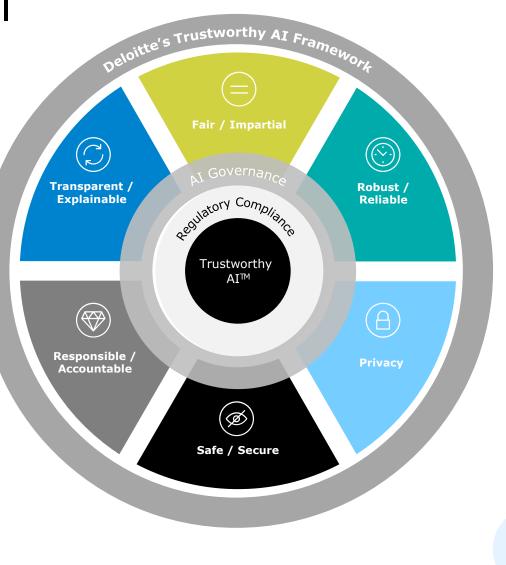
Primary Applicable Regulations/Guidelines Peripheral Regulations/Guidelines

Source: AI Strategies and Policies in New Zealand - OECD.AI

A safeguard: Trustworthy Al

Trustworthy AI is a socio-technical ecosystem that is ethical, lawful and technically robust.

It is achieved through **governance** and **management of AI risks** across **people, processes** and **technology**.



Guiding Principles for GenAl



Keep the **human in the loop**!



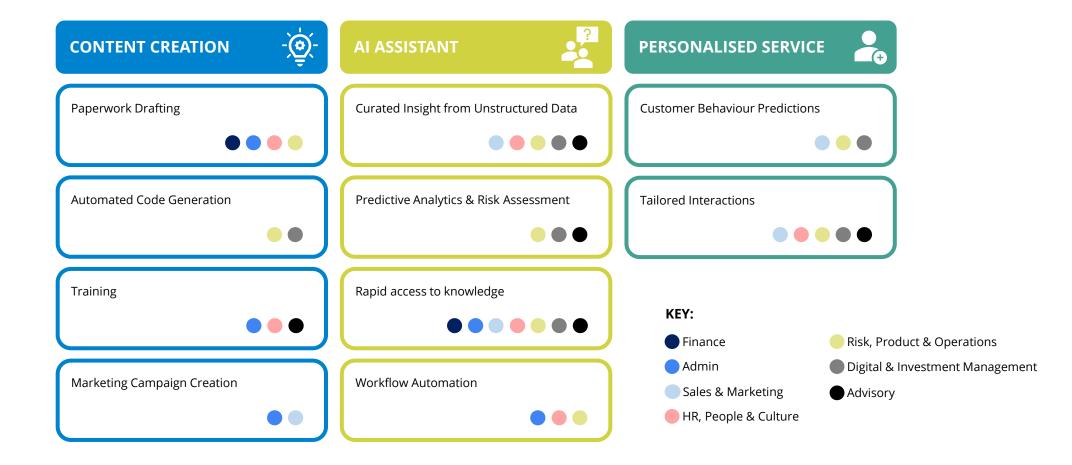
Repetitive, low complexity, low risk tasks are appropriate testing ground for GenAl solutions.



To counter 'hallucination' risk human **factchecking** processes need to be in place to confirm accuracy of GenAl content.

Explore what's Possible & Understand GenAl Use Cases

Artificial Intelligence Solutions



Content Creation

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and all

GenAl to Paperwork Drafting Source: Robin Al

	Image: Constrained app.robinal.co.uk	⊕ ^Δ + 8
	Project Apollo Last edited just now Clean Version Download	Ready for Negotiation () () (HG)
		Effective Date*
		04/05/2023
	MUTUAL NON-DISCLOSURE AGREEMENT	Party 1: Name*
	This Confidentiality Agreement (Agreement) is made on 2023-05-04 (Effective Date) between:	Business Co Limited
	Business Co Limited (company registration number 123456789) having its registered address at 8	Party 1: Company Registration*
	Devonshire Square, London; and	123456789
	Corporate Company LLC (company registration number 987654321) having its registered address at 123 Street, Ne:	Party 1: Address*
	Each a "party", and together the "parties".	8 Devonshire Square, London
	BACKGROUND	Party 2: Name*
	The parties have been in discussions or intend to enter into discussions concerning a potential business	Corporate Company LLC
	relationship (the Potential Relationship).	Party 2: Company Registration*
	The parties are willing to disclose Confidential Information to each other solely for the purpose of allowing each party to review and consider the Potential Relationship (the Permitted Purpose).	987654321
tarted	In consideration of the mutual benefits of sharing the Confidential Information, the parties have agreed to comply with the following terms.	Party 2: Address*
() Get Started	TERMS	Purpose*
(c)	1. DEFINITIONS	a potential business relationship
	For the purposes of this Agreement, the following expressions shall have the following meanings:	Term*

Marketing is the place for GenAl



Source: Gartner, Gartner Experts Answer the Top Generation Al Questions

GenAl to Enhance Employee Induction Content Source: MGM Resorts x ustwo

Skip utoria

Well done! You are currently standing in the lobby of the Aria, let's teach you how to move around. On your right controlla button and then point to where you want to move. to instantly teleport there."

Press and and release to teleport

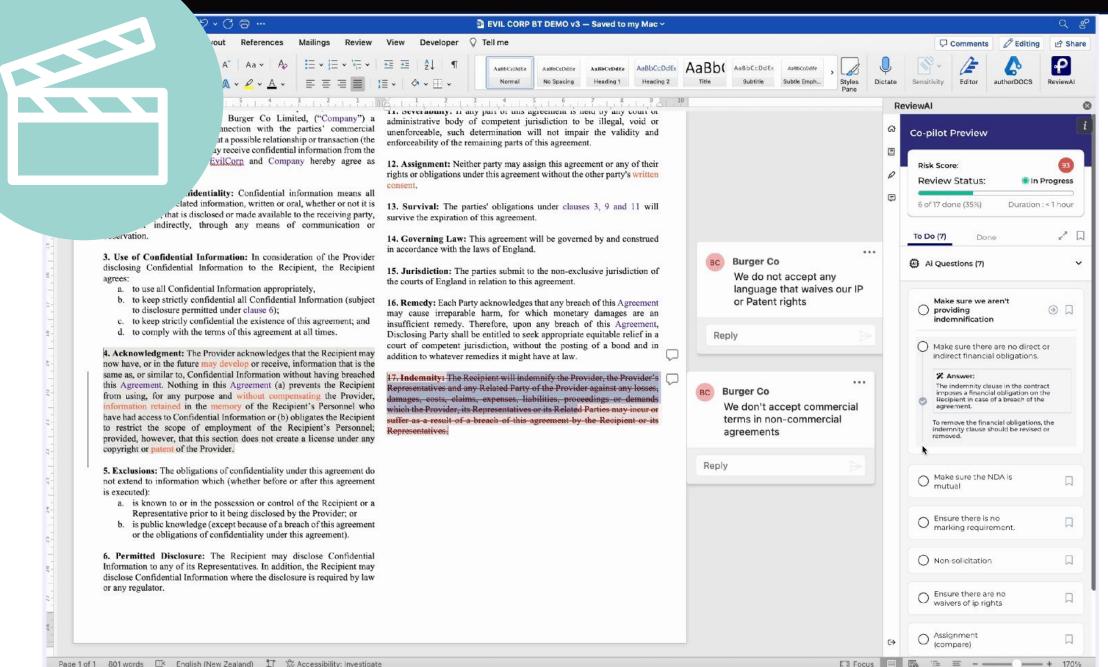


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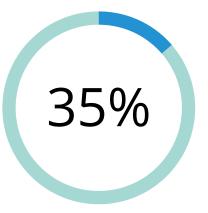
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ONIT Contract review automation and chat

Source: Onit

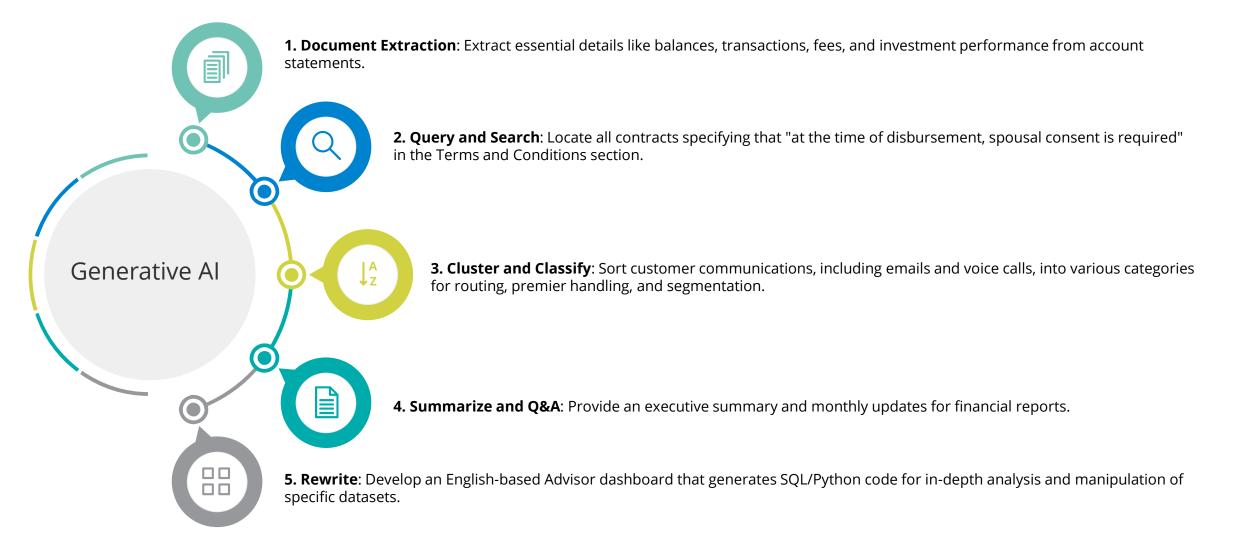


Greatest benefits to lower skilled workers



Fewer errors, 10% increase in speed, 14% increase in productivity, 15% reduction in employee turnover

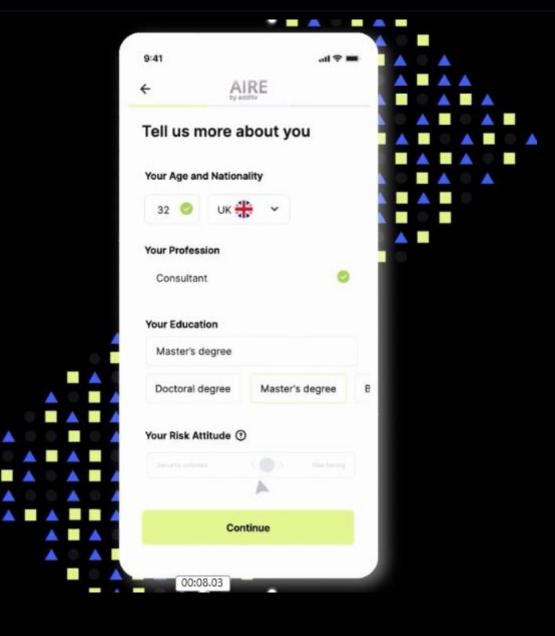
Al Assistants: Common uses in Financial Services



Personalised Service

GenAI for Tailored Advice and Portfolio Management

Source: AIRE from additiv





Your reflections

Dr. Amanda Williamsor Mariette van Niekerk



Our expert panel

- Dr Amanda Williamson, Generative Al Lead, Deloitte
- Mariette Van Niekerk, Data Science & Al Practice Lead, Deloitte
- Peter Mangin, Senior Technology Leader at Pure SEO

Facilitator: David Callanan, Public Trust GM Corporate Trustee Services

Thank you for attending.



