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PROPTECH FORUM

# Trust and Interpretability in Artificial Intelligence

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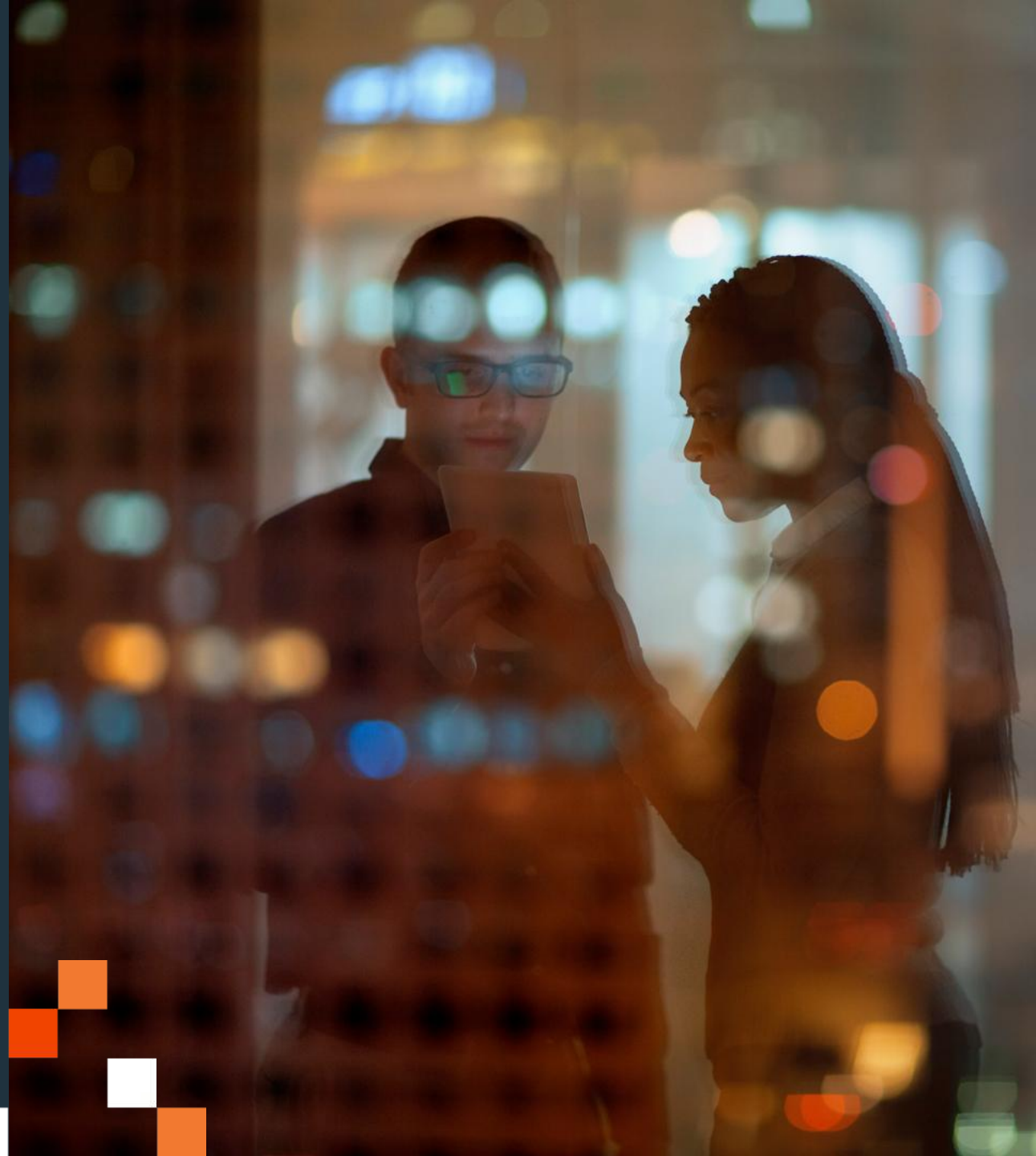
Principal, Innovation & Industry

2023



ON GADIGAL LAND

# Acknowledgment Of Country

We acknowledge the traditional custodians of country and their elders, past present and emerging.

We acknowledge that First Nations' knowledge of social and ecological systems is vital to a shared and sustainable future.

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ELEPHANT IN THE ROOM

# What is Artificial Intelligence?

Patrick Winston's Definition of AI, because it speaks to capability and is technology neutral:

*"Algorithms, enabled by constraints, exposed by representations that support models targeted at loops that tie thinking, perception and action together."*

Also, Patrick Winston's OTHER Definition of AI:

*"Computers that are able to imitate human thinking, perception and action."*

# Catalysing Predicaments

## AI's Existential Issue: Epistemic Opacity

### The Predicament of Knowledge

- How do we process information when the volume of information available surpasses our processing power? (Brewer, 2016)

### The Anthropocentric Predicament

- How do we, as humans, understand computationally based scientific methods that transcend our own abilities? (Humphreys, 2009)

### Who Cares about this problem?

The link between trust and adoption is empirical (Bedue & Fritzsche, 2022; Chen & Park, 2021).


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PROBLEMS

# Issues of Epistemic Opacity

## Black Box

- Commerciality (Finkel, 2018)

- Complexity (Samek et al, 2019)

- Criminality Paradox (Burt, 2019)

The problem with *transparency, as a basis of trust.*

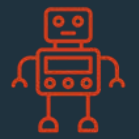
## Privileged Knowledge

It is a privilege to understand this technology.

In 2019, there were only 20,000 people worldwide qualified to a PhD level (Finkel, 2019). It is estimated that number now is still <40,000 (Georgetown, 2023)

Very small scientific community. Finkel (2019) describes it as a "priesthood. A cabal."

The problem with *explainability, as a basis of trust.*



## Anthropomorphism

Imitation – we are creating this technology in our own image.

We are encouraging people to think of it as a new type of social actor.

I've used the term "Artificial Actor" in my research: because we need to recognise the autonomous nature of the action, but the artificial nature of the imitation.

I prefer *interpretability, as a basis of trust.*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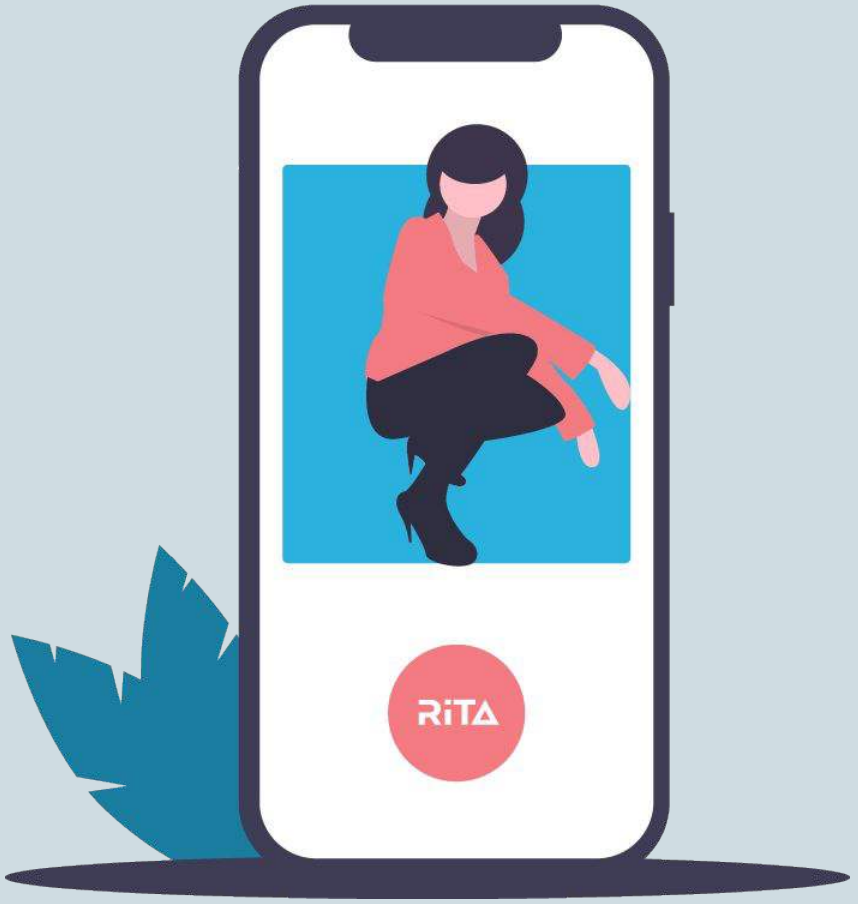
# We created a fiction to help people to interpret RiTA

**RiTA's AI is/was not in the interface, its in the engine.**

How can I understand what I cannot see?
Why should I care when it isn't relevant?

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THE EVOLUTION OF

# Artificial Actors in Knowledge Work

Not simply performing mundane tasks. Making sophisticated decisions, which impact human agency (Floridi & Taddeo, 2008).

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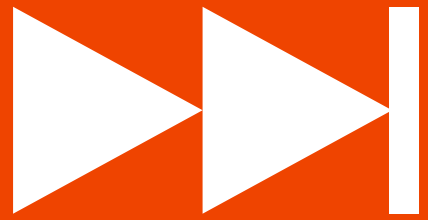

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# Theme One

## Risk is an embedded element of a techno-social paradigm

### The structure of our social interactions

- Technological first, social second (Bodo, 2020).
- That is our opportunity – the digital layer and the data exhaust created by it fuels all of our businesses.
- That is also the risk.

### Risk in the 21st century

- *reischgo, rischio, risk* – are modern words (Luhmann, 1979)
- Post industrial concepts of risk in specialisation
- As we replace our concept of danger with risk of future damage: we will require trust more.


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# Theme Two

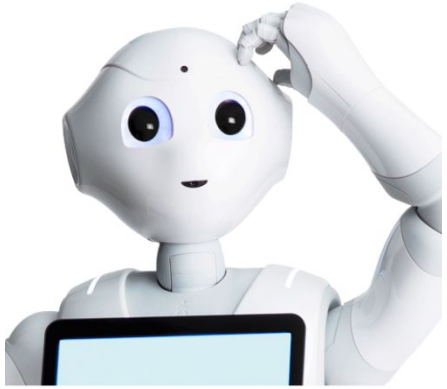
## Trust in Proptech can be encouraged by trust architecture that is understandable.

### Accountability & Answerability

- Human, corporate and government actors are bound by laws (Worthington & Spender, 2021).
- Where laws lack, social systems start.
- Artificial Actors? Product liability and standards

### Finding the right Treatment for these new "Objects"

- Moral Crumple Zone (Elish, 2014)
- Recommendation 11, AHRC AI Decision Making
- Risk Classification Framework: EU Parliament
- Similar to risky animals: Darling, 2021



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# Theme Three

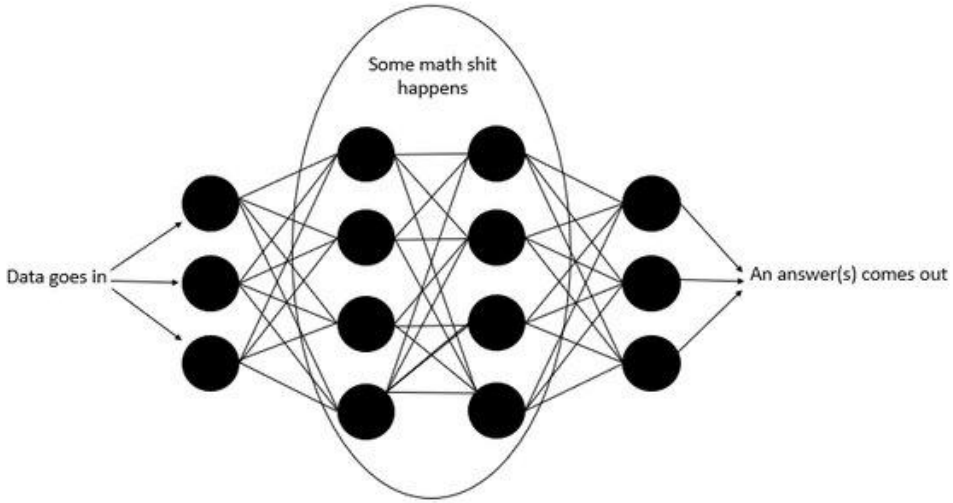
## Trust in Proptech can be the result of experimentation

### The degree of fear and impact are risk factors to trust

- LLMs (specifically GPT) shifted AI into the mainstream because it minimised fear and impact as risk factors.

### Perceived credibility is an insulating factor to trust.

- Reputation, trust, inside status of creators is a protective factor.





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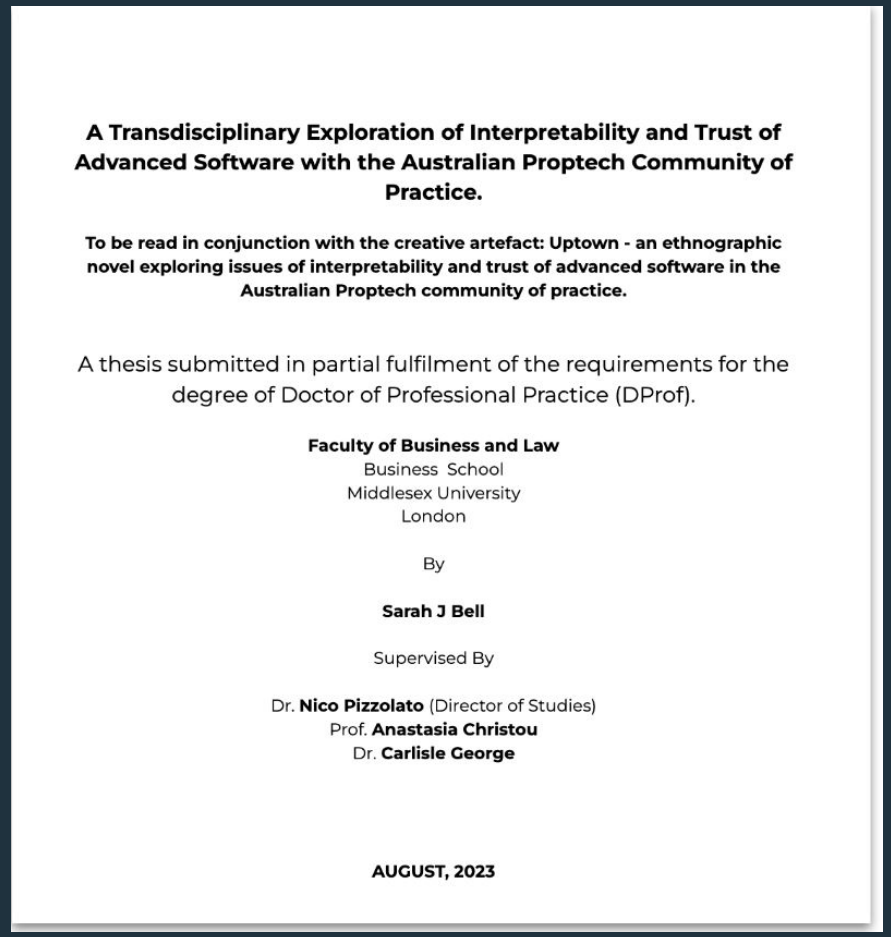
7 people were paid to read my thesis. I think that will be about it.

SO...



**A Transdisciplinary Exploration of Interpretability and Trust of Advanced Software with the Australian Proptech Community of Practice.**

**To be read in conjunction with the creative artefact: Uptown - an ethnographic novel exploring issues of interpretability and trust of advanced software in the Australian Proptech community of practice.**

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Professional Practice (DProf).

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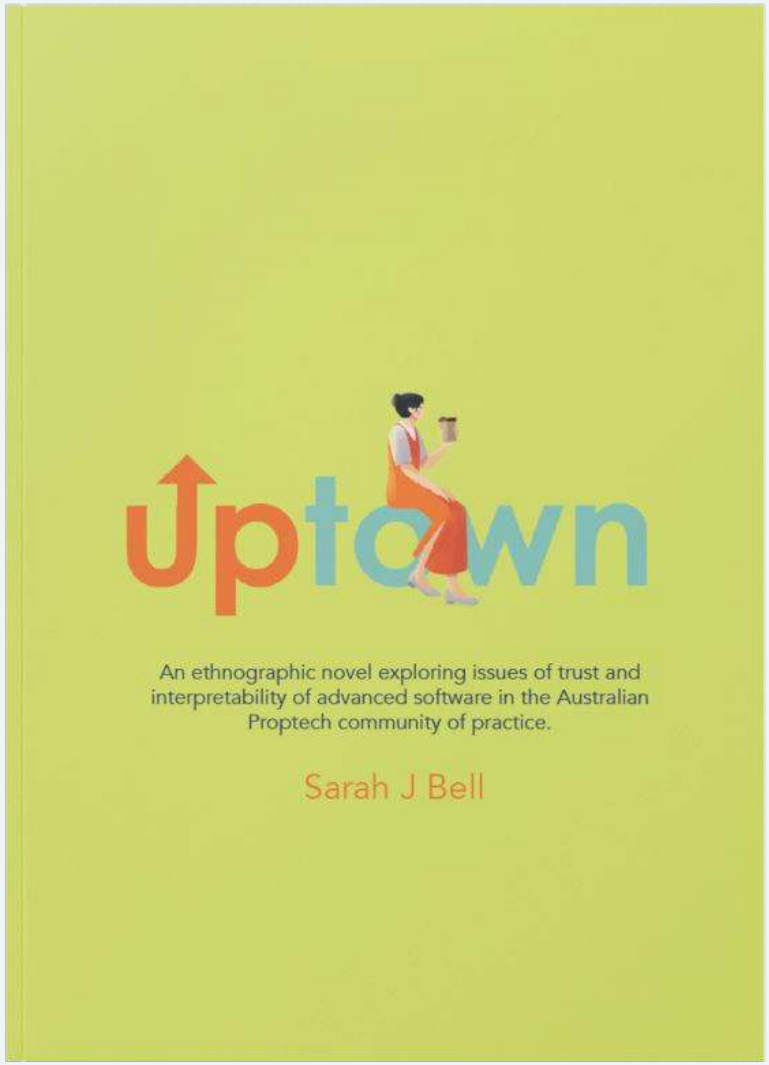
**AUGUST, 2023**




CREATIVE ARTEFACT

# ”We” co-created an artefact of the ethnography, which is much more fun.

“The perfect cocktail of ripping yarn, digital economy tech and legal tour de force, start up strategy handbook, small town slice of life, and love story. F**k me. 5 stars.”

★★★★★

NIGEL DALTON

Proptech Legend

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