Home / New Zealand

University of Auckland's cheating cases soar since pandemic

Dubby Henry

NEW ZEALAND / TECHNOLOGY

Universities give up using software to detect AI in work

Is it C… paper… resea…

Poll of 5,00…

and wh…

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Using artificial intelligence in academic writing and research: An essen… productivity tool

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ARTICLE INFO

Keywords:
Academic writing
Artificial intelligence
Research enhancement

ABSTRACT

Background: Academic writing is an essential component of research, chara… ideas, data-driven arguments, and logical reasoning. However, it poses chall… of information and complex ideas. The integration of Artificial Intellige… become increasingly important, offering solutions to these challenges. Th… mains where AI significantly supports academic writing.
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Suspected Undeclared Use of Artificial Intelligence in the Academic Literature

An Analysis of the Academ-AI Dataset

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… of Louisville
…ille, KY

…e science …ey shows

Your Brain on ChatGPT: Accumulation of Cognitive Debt when Using an AI Assistant for Essay Writing Task△

Nataliya Kosmyna [1]
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THE OPEN MIND

Artificial Intelligence Must Operate Ethically in Health Care and Not Be Prone to Racist or Sexist Biases

Craig S. Webster, PhD,*† and Tanisha Jowsey, PhD‡

Artificial intelligence (AI) promises to transform modern health care on multiple fronts, which may con
improvement en
nology.[1] Howeve
questions regard
health care conte
evidence of bias
Additional conc
strengths and li
of clear strategi
existing health
and health care
very expensive
the underlying
and the risks t
and anesthesia.
Research in
behavior dates
Warren McCul
States and Ala
However, it wa
first coined in
Project to be
Hampshire, in
lation of hum
allowing the n
its own perfo
solve the kin
for humans.[5]

more difficult than the original attendees at the Dartmouth meeting envisaged. However, almost 70

Careless Whisper: Speech-to-Text Hallucination Harms

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ACM Reference Format:

Choi, Katelyn X. Mei, Hilke Schellmann,

Hallucination

Microscopy AND Microanalysis

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https://doi.org/10.1093/micmic/ozad093
Advance access publication 26 August 2023
Original Article

The Dark Side of Artificial Intelligence: The Possible Risk of Falsifying Images for Scientific Articles

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***Corresponding author:** Piero Antonio Zecca, E-mail: pieroantonio@gmail.com

Abstract

This article explores the potential risks associated with using artificial intelligence (AI)-generated images in the field of microscopy. It discusses
current state-of-the-art AI-based image-generation techniques and their limitations. It investigates the potential risks associated with the il
use of AI-generated images, including their use in creating falsified scientific data and the consequences of such misuse. The
concludes by exploring possible solutions to mitigate these risks, such as implementing robust authentication methods and developing
guidelines for using and disseminating AI-generated images in the field of microscopy. Additionally, the article also presents the resu
survey involving 101 professionals, showing that the recognition of authentic and entirely AI-generated images is performed well.
detection of hybrid images could be improved.

Key words: artificial intelligence, ethical guidelines, illegal use, image analysis, image generation, microscopy

Introduction

The field of microscopy has witnessed a significant advance-
ment in recent years due to the integration of artificial intelli-
gence (AI) techniques (von Chamier et al., 2019). AI-based
algorithms and models have enabled faster and more accurate
analysis of microscopic images, providing new insights and
opportunities for research and development. However, with
the increasing capabilities of AI in generating realistic images,
there is a growing concern about the potential misuse of these
images in illegal contexts (Beridze & Butcher, 2019). This art-
icle aims to investigate the risk of illegal use of AI-generated
field of microscopy, with a specific focus on
ed to generate these images
of their misuse,

Materials and Methods

A Google Form survey was constructed using
which:

- 10 were entirely **authentic** light micros
- 10 were **hybrid** images, where only
was authentic, and 75% was rec
DALL-E-2 AI algorithm (https://op
- 10 were **false** images generated
software using some keywords.

DALL-E is a state-of-the-art gene
OpenAI that can create high-qual
scriptions. It is a transformer-bas
bines natural language proces
understand textual inputs and
to create complex a

PLOS DIGITAL HEALTH

REVIEW

Bias in medical AI: Implications for clinical decision-making

James L. Cross[1]*, Michael A. Choma[2], John A. Onofrey[2,3,4]

1 Yale School of Medicine, New Haven, Connecticut, United States of America, 2 Department of Radiology & Biomedical Imaging, Yale University, New Haven, Connecticut, United States of America, 3 Department of Urology, Yale University, New Haven, Connecticut, United States of America, 4 Department of Biomedical Engineering, Yale University, New Haven, Connecticut, United States of America

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Abstract

Biases in medical artificial intelligence (AI) arise and compound throughout the AI lifecycle. These biases can have significant clinical consequences, especially in applications that involve clinical decision-making. Left unaddressed, biased medical AI can lead to substandard clinical decisions and the perpetuation and exacerbation of longstanding healthcare disparities. We discuss potential biases that can arise at different stages in the AI development pipeline and how they can affect AI algorithms and clinical decision-making. Bias can occur in data features and labels, model development and evaluation, deployment, and publication. Insufficient sample sizes for certain patient groups can result in suboptimal performance, algorithm underestimation, and clinically unmeaningful predictions. Missing patient findings can also produce biased model behavior, including capturable but nonrandomly missing data, such as diagnosis codes, and data that is not usually or not easily captured, such as social determinants of health. Expertly annotated labels used to train supervised learning models may reflect implicit cognitive biases or substandard care practices. Overreliance on performance metrics during model development may obscure bias and diminish a model's clinical utility. When applied to data outside the training cohort, model performance can deteriorate from previous validation and can do so differentially across subgroups. How end users interact with deployed solutions can introduce bias. Finally, when developed and published, and by whom, impacts the trajectory of medical AI development. Solutions to mitigate model bias include the collection of

Check for updates

OPEN ACCESS

Citation: Cross JL, Choma MA, Onofrey JA (2024) Bias in medical AI: Implications for clinical decision-making. PLOS Digit Health 3(11): e0000651. https://doi.org/10.1371/journal.pdig.0000651

Editor: Wisit Cheungpasitporn, Mayo Clinic Rochester: Mayo Clinic Minnesota, UNITED STATES OF AMERICA

Published: November 7, 2024

AI use is skyrocketing

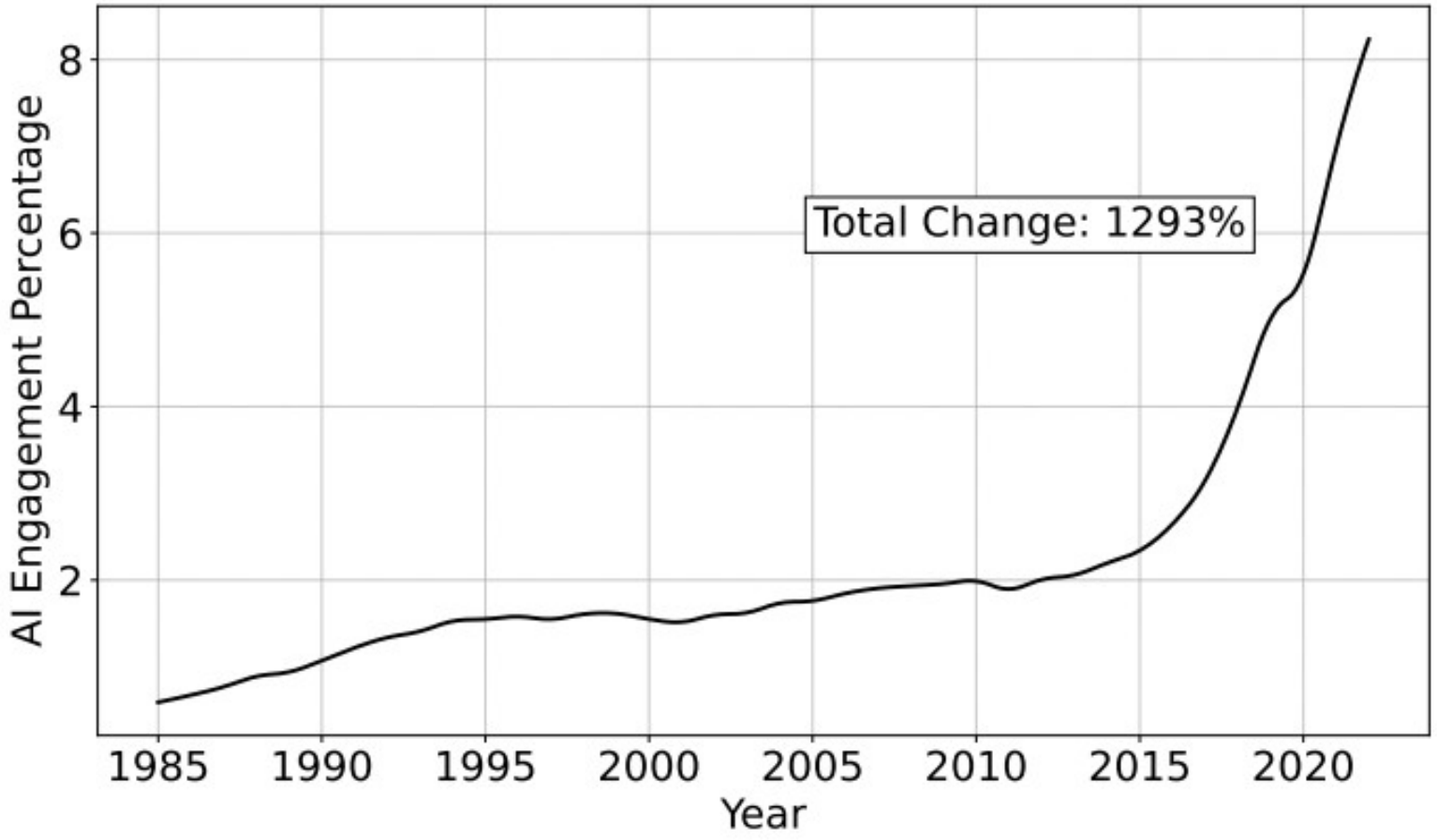
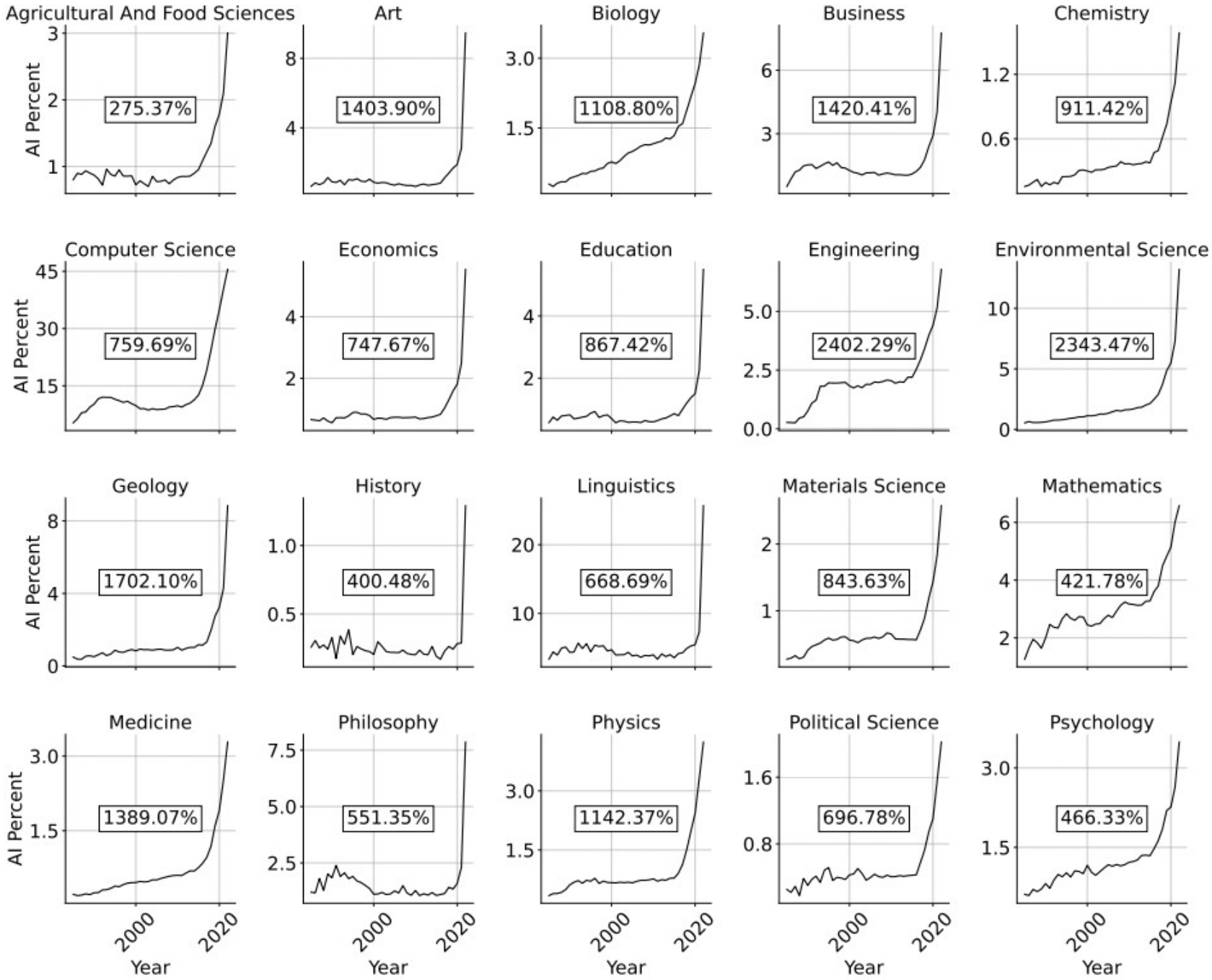


Figure 1: Change in AI engagement across all fields from 1985 - 2022

https://doi.org/10.48550/arXiv.2405.15828


Agricultural And Food Sciences
275.37%
Art
1403.90%
Biology
1108.80%
Business
1420.41%
Chemistry
911.42%
Computer Science
759.69%
Economics
747.67%
Education
867.42%
Engineering
2402.29%
Environmental Science
2343.47%
Geology
1702.10%
History
400.48%
Linguistics
668.69%
Materials Science
843.63%
Mathematics
421.78%
Medicine
1389.07%
Philosophy
551.35%
Physics
1142.37%
Political Science
696.78%
Psychology
466.33%
AI Percent
Year
2000
2020

September 22, 2025

NZTECH

NZ's $70m AI platform: acce research to market

Kia ora,

What an incredible week for our AI Forum NZ community. The energy at the Aotearoa A with leaders from industry, government, research, and the wider community with AI. The kōrero was forward-looking, the insights were practical, and th Zealand is shifting from ambition to action.

Tasmania enters the 'AI race' with Technologies factory in north of st

By Ashleigh Barraclough AI

Wed 2 Jul

OXFORD UNIVERSITY PRESS

Researchers and AI

Survey Findings

Summary of overall findings

- Just over three-quarters (76%) of researchers report using some form of AI tool in their research at present. Machine translation (49%) and chatbot tools (43%) are the most popular, followed by AI-powered search engines or research tools (25%).
- Just over a quarter (27%) report having a good understanding of AI tools in general.

Waipapa Taumata Rau
University of Auckland

Advancing AI Literacy for Responsible Research

Dr Kyle Hemming

Dr Erin Wood

Responsible AI at UoA

Researcher needs

What is it

How can I use it

Outcomes

What is AI

Privacy, ethics

Biases, hallucinations

Approved tools

AI-platforms

Deliverables

Workshops

Web pages

Policy comms

Communities

Workshops

Five types, run 16x, to 200ppl

1. Responsible AI
2. Responsible AI - supervisors
3. Transcription
4. Literature reviews
5. Prompt engineering
6. Qualitative research

Transcription workshop example

Learning outcomes today

- Summarise transcription using AI
- Benefits of AI
- Apply responsible AI
- Understand AI tool considerations
- Identify next steps

ResearchHub Research software and computing / Transcription

Workshop engagement

Strong demand

>2000ppl

5x higher turnout to sessions

Run every 2-months

High article views

ResearchHub

Search for anything

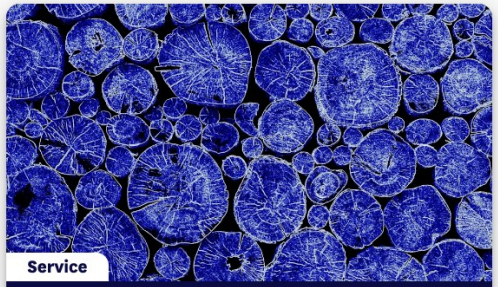
Categor

Explore services, tools and training to support AI in research

Article

Generative AI tools

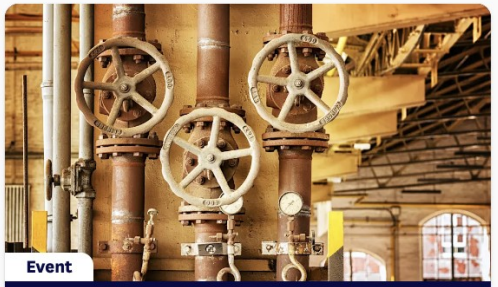
Information on University-approved generative AI tools, applications, services, and systems for research, along with guidance on seeking approval to use a generative AI tool.



Service

GPUs for research computing and AI

Advice for accessing GPUs for research computing and AI applications.



Event

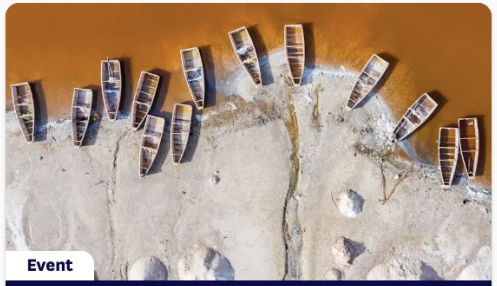
Introduction to machine learning workshop

Online workshop providing an introduction to machine learning using python designed for postgraduate research students and researchers with no prior machine learning experience.

Event

Introduction to deep learning workshop

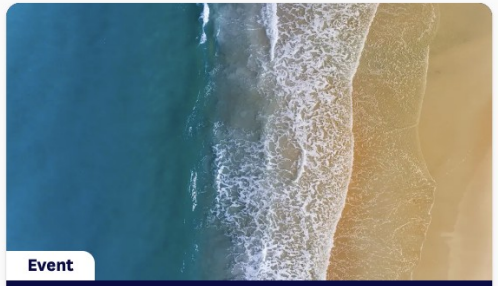
Online workshop providing an introduction to deep learning using python designed for postgraduate research students and researchers to build on their existing machine learning knowledge.



Event

Responsible AI in research for supervisors workshop

Online workshop introducing the benefits and considerations of using AI tools for conducting research designed for supervisors.



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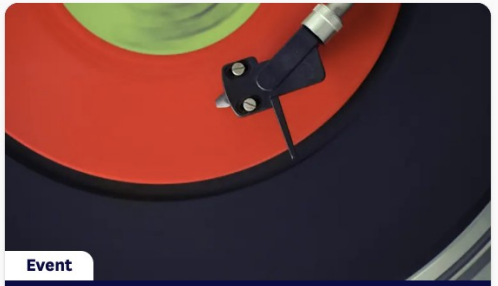
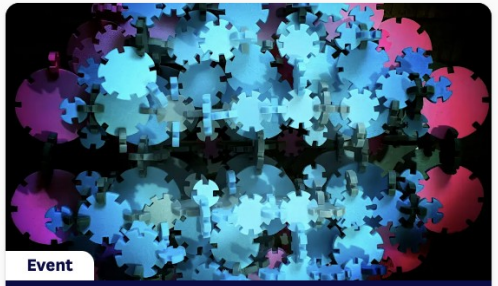


Event

Transcription using AI workshop

Online workshop introducing AI tools for transcribing research data and important considerations for their use.



Event

AI for literature reviews workshop

Online workshop discussing benefits and risks of using AI in literature reviews for researchers, particularly postgraduate and doctoral students.

AI Communities

Teaching and Learning committee

Associates programme (professional staff)

Enterprise AI Lunchtime

Champions network (disest.)

Policies

No “AI policy”

Amendments to current policies

Guidelines: teaching/learning, Enterprise, Research

Thesis Writing Guidelines

Researcher feedback

"Get more organised, provide actual answers related to supervision."

"… I wish there was better clarity on what is and is not acceptable use."

"[C]oncrete guidance and suggestions."

"… what the tools can do and what their limitations…"

"[H]ow to support student research while maintaining high levels of ethical behaviour that also upholds data sovereignty issues."

"More about University approved AI tools for different steps in research."

"I think many of our students don't realise that they are (mis)using AI tools but supervisors are also not equipped to advise them; manage these issues"

"How it all works and am I missing out!"

Researchers want

- Actionable advice
- Safe tools
- Frequent, two-way communication
- Need to feel heard
- Benefits & risks for AI for a given task

2026

Workshops + Articles

- Updates
- Qualitative research using LLMs (~Carpentries)
- Agentic workflows (~Carpentries)

Responsible AI at UoA

Researcher needs

What is it

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Jessica Situ
MIT
Cambridge, MA

Xian-Hao Liao
Mass. College of Art and Design (MassArt)
Boston, MA

Ashly Vivian Beresnitzky
MIT
Cambridge, MA

Iris Braunstein
MIT
Cambridge, MA

Pattie Maes
MIT Media Lab
Cambridge, MA

United States

“I'm pretty sure universities all over the world are having this problem.

What are other universities doing?

Is there any 'international' advice?”

Waipapa Taumata Rau
University of Auckland

Thursday 2:20 BoF

AI's Impact on Digital Research Skills Training

Boulevard room