



AiLECS lab

Ai for law enforcement
and community safety



MONASH
University



AFP
AUSTRALIAN FEDERAL POLICE

A collaboration between:



MONASH
University



AFP
AUSTRALIAN FEDERAL POLICE

The AiLECS Lab is an Australian-first research lab investigating the ethical use of artificial intelligence in law enforcement and community safety.

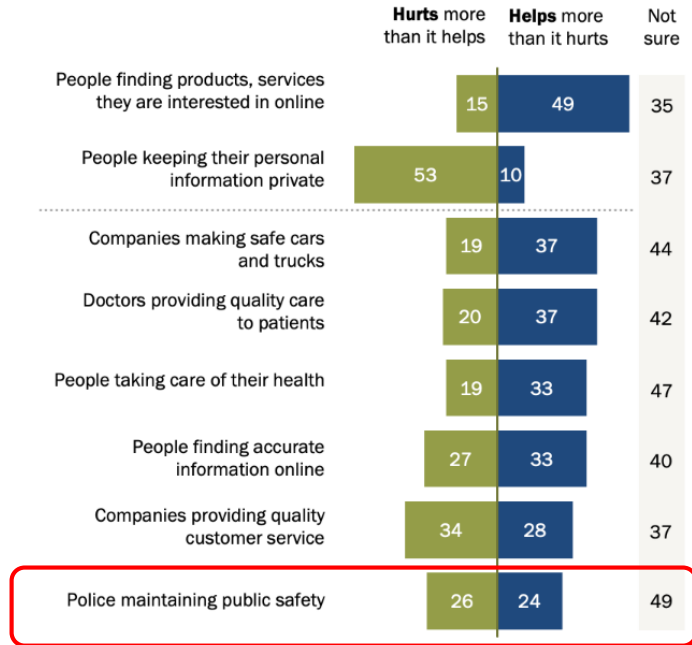
Our projects explore explainable algorithms, machine learning classification algorithms for illicit image, video and text, frameworks for ethical AI as well as techniques for leveraging massive law enforcement datasets.

**Exploring how
new technology
can boost
community safety.**



Does the use of AI in daily life in the context of police maintaining public safety, help or harm?

% of U.S. adults who say for each of the following, artificial intelligence ...



Note: Respondents who did not give an answer are not shown.

Source: Survey conducted July 31-Aug. 6, 2023.

PEW RESEARCH CENTER



• AiLECS Streams

- Explainability in judicial contexts
- Legal frameworks around technology facilitated crime
- Legal responses to image based abuse and misinformation

AI and the Legal System

- AI support for forensics
- Disaster victim ID

Beyond Digital Forensics

- Ethical data curation
- Community voice
- Data privacy and consent
- Ethical AI frameworks

Ethics, Transparency and Community Voice

- Graph analysis of organised crime networks
- Natural language processing
- Image classification
- Generative AI

Pattern of Life

- Law enforcement Interoperability
- Engineering and AI pipelines
- Data schemas

Data Ontologies


As a research centre focussed on translational outcomes we must;

- Be in the business of data pipelines - the shepherding of raw data collection through appropriate transformations and metadata process for VALID research datasets suitable for use and reuse.
- Ensure AI Ethics is operationalised as practice and not just theory



My Pictures Matter - ethical datasets and visual classifiers for identifying child sexual abuse material (CSAM)





Qlink: set of tools and processes used to automate the movement and transformation of data between a source system and a target repository

AWS: a data pipeline is a series of processing steps to prepare enterprise data for analysis.

What is a data pipeline?

Heavy.AI: a series of automated, consecutive data processing steps involved in ingesting and moving raw data from disparate sources to a destination

Informatica: an end-to-end sequence of digital processes used to collect, modify, and deliver data

- For trustworthy tools and systems, evidentiary integrity, and procedural fairness;
- For trauma-informed practice that mitigates systemic harms to victim-survivors and to investigators of CSAM;
- For building and maintaining citizen trust in law enforcement, including (in this particular domain space) achieving fairly distributed outcomes for children of all demographics; and
- For understanding who else the data pipelines that feed technology tools designed to protect children might be impacting.





The most 'efficient' path is not necessarily the most 'ethical', and - in matters of public interest - the public have a right to know what interests trump their own

Could your childhood photos help save a child from harm?

Contact My Pictures Matter:



Follow us on Facebook:



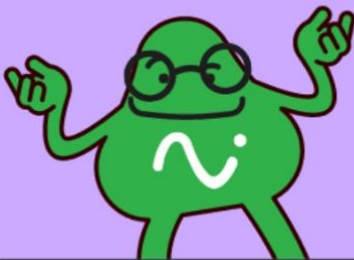
I'm ready to contribute!



Let's go!

Thanks for visiting the
My Pictures Matter campaign!

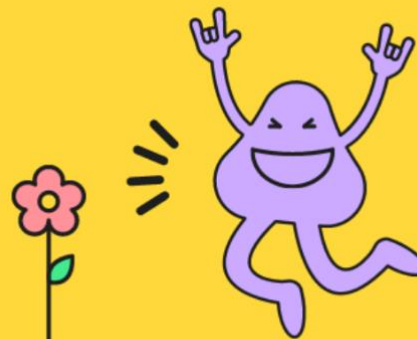
We're inviting you to join an
important machine learning
project...



...to help fight child
exploitation...



... by contributing childhood
photos of yourself (aged 0-17)
to a research dataset.



This data will be used to help

So, if there are other people in

We're not collecting any material

VERACITY - how can we trust data is what it purports to be?


AGENCY - who holds influence over how data is collected, described and used?

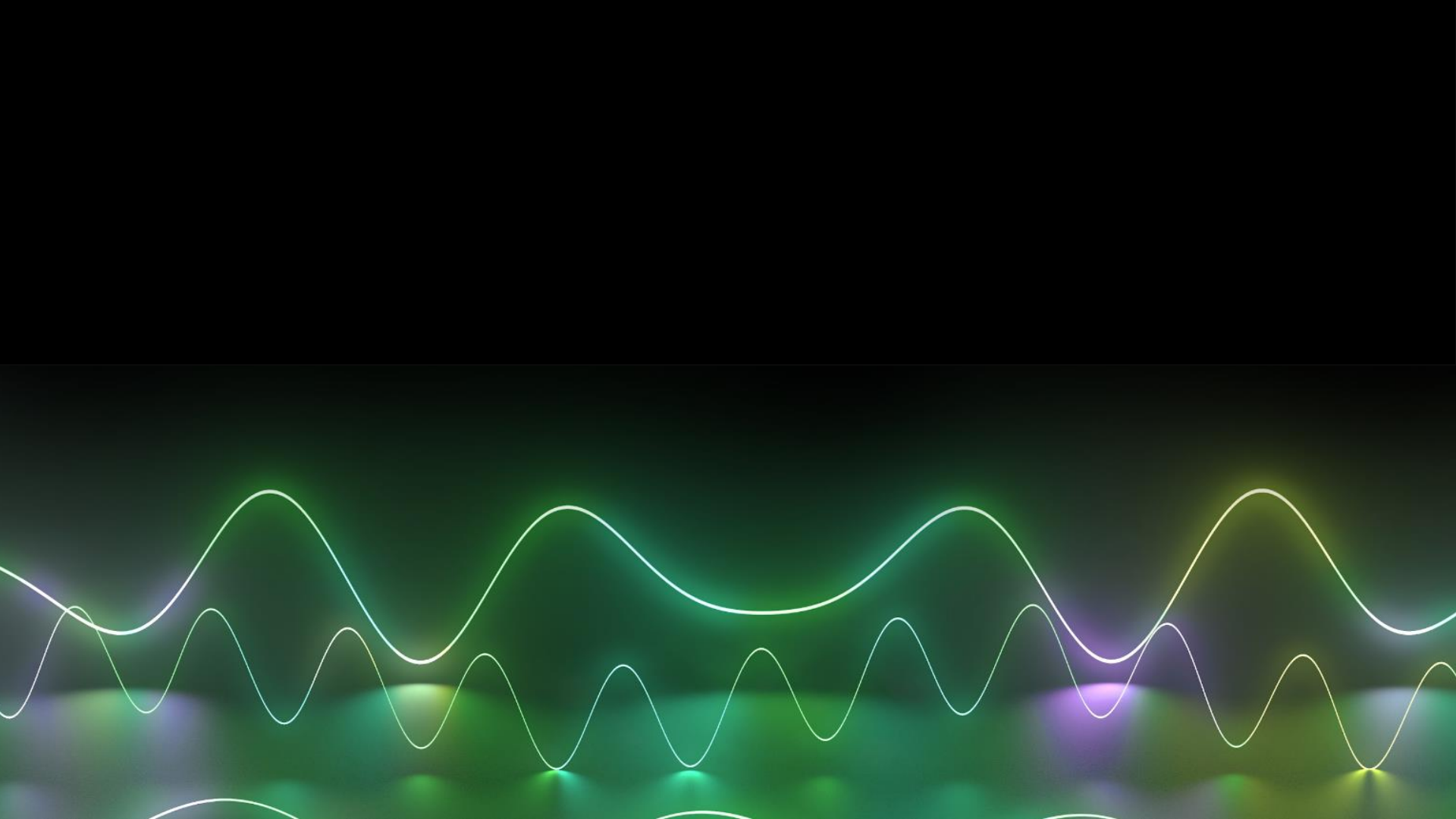
LONGEVITY - will the data remain technically and conceptually consistent through time?

INTEGRITY - is it safe and appropriate for the use case?

DOCUMENTING - data choices and datasets to ensure others have the technical and non-technical information needed to make their own ethical decisions.



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1. We hold consent, but not identity data
 2. We acknowledge that what I feel safe or comfortable doing is situational
 3. We're taking a data minimisation approach
 4. Images and email addresses are not directly linked in the VALID database



Thank You

Dr Campbell Wilson, Monash Co-Director, AiLECS Lab

Dr Nina Lewis, Stream Lead: Ethics Transparency and Community Voice

Dr Greg Rolan, Research Fellow

Ai-Lin Soo, Operations Manager, AiLECS Lab

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