

CASE STUDY

Delivering Independent Assurance for Australia's Age Assurance Technology Trial

FUNDED BY



Australian Government

Department of Infrastructure, Transport,
Regional Development, Communications and the Arts

AT A GLANCE

Client

Australian Government, Age Assurance
Technology Trial (AATT)

Industry

Government | Digital Regulation

Capability

AI Governance & Assurance | Testing AI |
Software Quality Engineering

Solution

Independent testing and assurance of age
assurance technologies, including facial age
estimation, identity verification systems, and
other age assurance technologies.

The Challenge

The Australian Government commissioned an independent trial to
gather evidence of the current state of age assurance technology
globally. The trial sort to understand if technologies could operate
reliably, safely, and fairly under Australian conditions.

The Outcome

- Independent evaluation of age assurance technologies was
completed. This included the facilitation of lab based, in-
school and home-based testing activities.
- Improved visibility into operational, privacy, and reliability
risks
- Evidence-based findings delivered to support future policy
and implementation decisions



BACKGROUND

The Australian Government established the Age Assurance Technology Trial to evaluate technologies intended to support
online age restrictions and digital safety initiatives. The program assessed facial age estimation, age verification, and
related identity technologies using Australian participants and operating conditions.

THE CHALLENGE

Many age assurance products had been developed and tested overseas, with limited evidence showing how they would
perform in Australian conditions.

The government needed confidence in how these systems behaved across different devices, environments, and user
groups, including where reliability degraded and what operational or privacy risks needed consideration before wider
deployment.

WHAT KJR DELIVERED

OUR ROLE:

KJR provided independent AI testing, assurance, and validation services across the trial. The team assessed technology
behaviour, operational reliability, privacy considerations, and governance risks to help government stakeholders make
informed decisions based on evidence rather than vendor claims.

KJR also led critical aspects of the trial relating to child safety, privacy, and inclusivity. This included designing safeguards
for school-based testing involving minors and embedding diversity and inclusion considerations into the evaluation
approach. These elements formed a key part of ensuring the trial was conducted responsibly and ethically.

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WHAT KJR DELIVERED CONT'D.

KEY CONTRIBUTIONS:

- Independent testing and assurance of age assurance technologies
- Validation of AI model behaviour using Australian participant data
- Assessment of operational reliability across varied conditions
- Evaluation of privacy, governance, and deployment risks
- Structured reporting to support evidence-based decision-making
- Analysis of edge cases, inconsistencies, and environmental impacts on model performance

HOW WE DID IT

01

Discover & Assess

- Reviewed operational, privacy, and policy risks
- Assessed technology maturity and testing scope
- Worked with stakeholders across the trial programme

02

Assure & Validate

- Performed structured testing of AI-enabled age assurance systems
- Evaluated reliability across different usage conditions and scenarios
- Assessed privacy handling and governance controls

03

Release with Confidence

- Contributed independent findings and assurance reporting
- Provided evidence to support future implementation and policy decisions
- Highlighted operational limitations and deployment considerations

Child Safety & Privacy

Designed and implemented testing protocols that prioritised child safety, ethical participation, and privacy protection, particularly in school-based environments.

Diversity & Inclusion

Embedded diversity and inclusion considerations into testing design to ensure representative evaluation across participant groups and real-world conditions.



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IMPACT & BUSINESS OUTCOMES

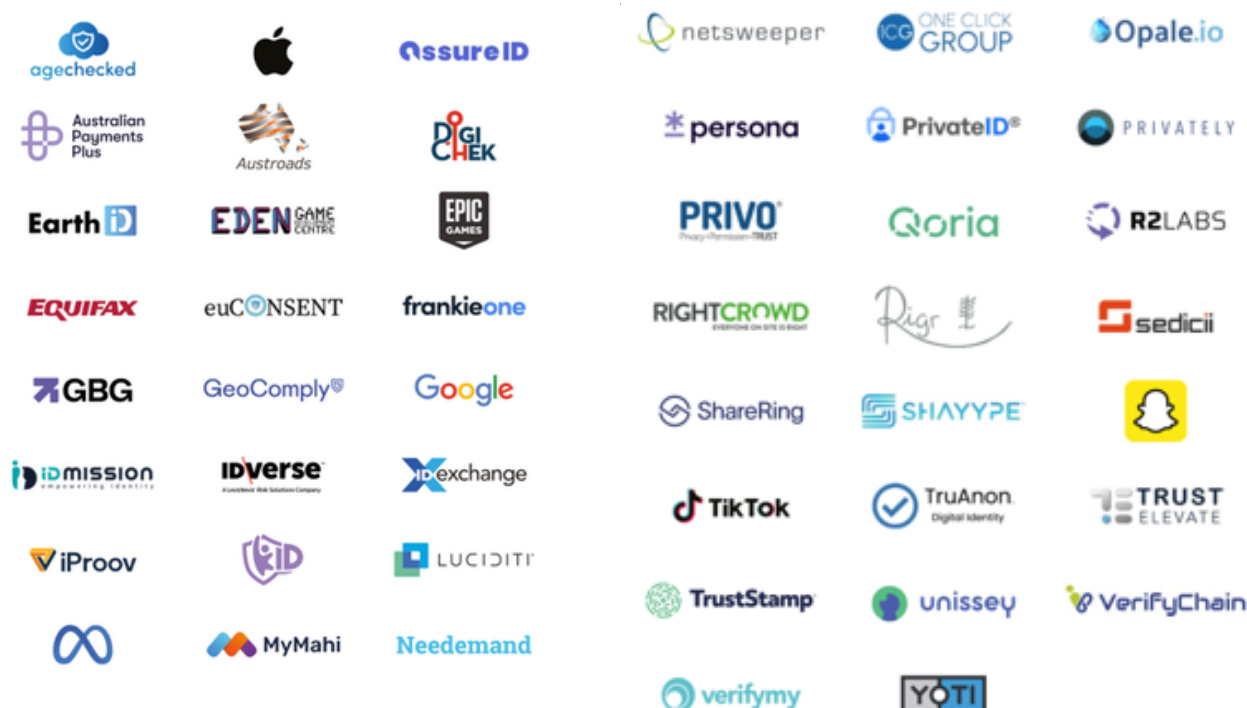
- ✓ **Independent evidence** provided for government decision-making
- ✓ **Improved understanding** of operational and privacy risks
- ✓ **Better visibility** into where AI models performed reliably and where limitations emerged
- ✓ **Increased confidence** in testing, governance, and assurance processes
- ✓ **Clearer understanding** of deployment considerations under real-world conditions

WHY KJR

- Independent, vendor-neutral assurance approach
- Experience testing AI systems in healthcare, computer vision, and regulated environments
- Practical focus on risk, operational confidence, and measurable outcomes
- Strong background in AI validation, governance, and quality engineering

The Trial also drew on KJR's broader assurance lineage, including its Validation Driven Machine Learning (VDML) methodology and contribution to the ISO/IEC 42119 series for AI testing. In this context, VDML was used as an assurance philosophy: establish the operating context, assess risk, test under realistic conditions, identify limitations, and produce evidence that can be scrutinised.

TRIAL PARTICIPANTS



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TECHNOLOGY USED TO SUPPORT VALIDATION

Power BI, Python, pandas, SageMaker, PostgreSQL, React/Typescript, Git, ASP .NET, MS Entity Framework, javascript, AWS cloud infrastructure, cross platform & mobile testing, application lifecycle management tools

