

The ethical use of artificial intelligence (AI), including facial recognition, and the effects on human behaviour survey.

You are invited to participate in a research project conducted by Justin Lloyd Dean, Director of Envent Australia Pty Ltd. The research is part of a collaborative project between Envent Australia and the Future Art Science and Technology Lab (FASTLab) at the University of Newcastle. The research project has been partially funded by a Covid19-Tech Voucher grant from the NSW State Government.

PLEASE READ through the following information, then click through to the survey which follows.

Information Statement for the Research Project: The ethical use of artificial intelligence (AI), including facial recognition, and the effects on human behaviour survey.
Document Version dated 24.02.2023.

The Research Team from:

Professor Paul Egglestone (FASTLab, UON), Associate Professor Craig Hight (FASTLab, UON), and Justin Lloyd Dean.

Why is the research being done:

Hi, my name is Justin Lloyd Dean, I am currently a student/ researcher at the University of Newcastle, doing a PhD.

As part of the research study. We would like to ask you some questions regarding Artificial Intelligence and your experience with this technology.

We are designing a prototype version of an interactive touchscreen technology using facial recognition based on the feedback we receive from this survey. We would love your input and your feedback is really important and helpful for us.

Our aim is to garner people/ s current awareness of the use of artificial intelligence (AI), in particular facial recognition technology, across all anthropomorphic (human behavioural) categories, the level of their understanding of the purpose of this technology in particular and the level of trust in engaging with this technology and handing over agency for decision making, data storage and data retrieval.

We want to explore the use of AI and the possible ethical, human and social impacts of a prototype solution we have designed for health and safety circumstances. We will be including user group surveys to elaborate on the following AI information to capture concerns and to provide analysis and solutions to provide transparency for users. Your feedback will also be essential in helping to provide an ethical framework for this work, for policy makers to enforce transparency, and development guidelines for technology companies and organisations to adhere to and certify against.

Who can participate in the research:

We are seeking people aged 18 and over who are interested in the ethical use of facial recognition technology to participate in this research. Participation in this research is limited to a self-administered anonymous questionnaire. There is no obligation to participate in this research. Please take as much time as you require to consider your involvement by reviewing the contents of this Information Statement.

What would you be asked to do:

If you agree to participate, you will be asked to complete an online survey/ questionnaire asking for non-identifiable information.

This survey is comprised of clear and unambiguous questions with limited choice, yes or no, or multiple choice closed questions with yes or no answers and should take you around 10 minutes to complete.

Candidate: Justin Dean | **Student No:** 9038932 | **Email:** Justin.dean@uon.edu.au

Program: PhD (Design) | **School:**School of Humanities Creative Industries | **Faculty:** College of Human and Social Futures| **Research Topic:** Designing Trust into Artificial Intelligence: A Health-Care Case Study

You can complete the survey in one session. Your data will only be submitted once you press the 'submit' at the end of the survey. The survey will be held on Google Forms.

What choice do you have:

Participation in this research is entirely your choice. Completion of the survey will be considered implied consent to participate in this part of the project.

Whether or not you decide to participate, your decision will not disadvantage you. If you do decide to participate, you may withdraw from the project at any time prior to submitting your completed questionnaire. Please note that due to the anonymous nature of the questionnaire, you will not be able to withdraw your response after it has been submitted.

How much time will it take:

The survey/ questionnaire should take about 10 minutes to complete.

A final question invites you to also participate in a short follow-up interview (either face to face, by phone or online). A separate information sheet will be sent to you if you agree to be contacted for this.

What are the risks and benefits of participating:

Regarding any conflicts of interest or interests of full disclosure and transparency, I would like to elaborate on my position as follows. Whilst I am a student/ researcher at the University of Newcastle, doing a PhD, I am also the director of a company whose 'product' we are using to explore the question of trust in AI.

There is no direct financial benefit to my company resulting from the research, the data stemming from my research will inform the future direction of our business, specifically in relation to the evolving areas of AI and facial recognition. This research will allow Envent to create a framework/ policy on the responsible development and application of AI.

The study protocol has been independently assessed and approved by the University of Newcastle Ethics committee. Participants are free to withdraw from the study at any time without prejudice.

While there are no anticipated benefits to you personally in participating in this research, the findings will help contribute to the knowledge base of ethical AI development regarding facial recognition technology. It is our aim to contribute to the formulation of an Australia wide formal ethical policy that may form the part of a legislative framework, law or statute, which can be adopted by government agencies and technology companies.

All responses will be recorded and categorised to enable us to quantify your perception and experience of AI in particular the use of facial recognition.

The team acknowledges there are documented issues with racial discrimination with certain AI facial recognition tools. We understand that this may be confronting for some participants who may find this distressing particularly when asked for their views on levels of trust in a technology that, in certain guises, is acknowledged to be prejudicial. Participants are reminded that they are free to withdraw at any time without the need to explain their reasons. However, if they have found the process distressing assistance is available at the following:

The University Of Newcastle Counselling Service:

<https://www.newcastle.edu.au/current-students/support/personal/counselling>

Phone (02) 4921 6622

Email counselling@newcastle.edu.au Find us at Level 2 (ground level) of the Student Services building (across from Bar on the Hill)

We are open between 9am and 5pm Monday to Friday Newcastle Counselling and Psychotherapy, 744 Hunter St, Newcastle West, NSW, 2302. T: 0409 115 321

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How will your privacy be protected:

Due to the anonymous nature of the survey/questionnaire the responses you provide will not be identifiable. A final question requests contact details for a second stage of the project (short interviews). This information will be separated from the survey data.

Data will be retained securely for a minimum period of five (5) years from completion of the research and managed/ stored in accordance with the University's Research Data and Materials Management Guideline. See <https://policies.newcastle.edu.au/document/view-current.php?id/72> or any successor Guideline, and applicable University of Newcastle policy provisions (as amended from time to time).

The questionnaire will be hosted by Microsoft Forms. Only those members of the Research Team (above) will have access to the anonymized data.

How will the information collected be used:

All responses will be recorded and categorised to enable us to quantify your perception and experience of AI in particular the use of facial recognition. Please take your time and enjoy the experience with us.

The survey data will contribute towards the field of research of Envent Australia and/ or may be presented in academic publications, journals, conferences or to artificial intelligence communities.

Individual participants will not be identifiable in any reports arising from the project although individual anonymous responses may be quoted.

Non-identifiable data may also be shared with other parties to encourage scientific scrutiny, and to contribute to further research and public knowledge.

What do you need to do to participate:

Please read this Information Statement and be sure you understand its contents before you consent to participate. If there is anything you do not understand, or you have questions, please contact the researcher.

Completion and submission of this online survey: will be taken as your implied consent to participate.

Further information

This project has been approved by the University's Human Research Ethics Committee.
Protocol Number: **H-2023-0221**.

If you would like further information please contact:

Justin Lloyd Dean
(02) 9557 8838
Justin@envent.com.au

Professor Paul Egglestone
(02) 4985 4545
paul.egglestone@newcastle.edu.au

Complaints about this research

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, it may be given to the Chief Investigator on (02) 4985 4545 or by email on paul.egglestone@newcastle.edu.au or, if an independent person is preferred, to the Ethics Officer, Research and Innovation Services, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone (02) 4921 6333 or email Human-Ethics@newcastle.edu.au.

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Preliminary Questions

1	What age bracket do you fit into:	<table border="1"> <tbody> <tr><td>18-24</td></tr> <tr><td>25-34</td></tr> <tr><td>35-44</td></tr> <tr><td>45-54</td></tr> <tr><td>55-64</td></tr> <tr><td>65+</td></tr> </tbody> </table>	18-24	25-34	35-44	45-54	55-64	65+					
18-24													
25-34													
35-44													
45-54													
55-64													
65+													
2	What ethnicity do you identify with:	<table border="1"> <tbody> <tr><td>Aboriginal</td></tr> <tr><td>Arab/ Middle Eastern</td></tr> <tr><td>African</td></tr> <tr><td>East Asian (Japanese, Korean, Taiwanese)</td></tr> <tr><td>South East Asian (Thai, Indonesian, Vietnamese)</td></tr> <tr><td>Chinese</td></tr> <tr><td>European(English, French, German, Italian etc.)</td></tr> <tr><td>Indian</td></tr> <tr><td>Native American</td></tr> <tr><td>Polynesian</td></tr> <tr><td>Latino/ Hispanic</td></tr> </tbody> </table>	Aboriginal	Arab/ Middle Eastern	African	East Asian (Japanese, Korean, Taiwanese)	South East Asian (Thai, Indonesian, Vietnamese)	Chinese	European(English, French, German, Italian etc.)	Indian	Native American	Polynesian	Latino/ Hispanic
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European(English, French, German, Italian etc.)													
Indian													
Native American													
Polynesian													
Latino/ Hispanic													
3	What Gender do you identify with:	<table border="1"> <tbody> <tr><td>Male</td></tr> <tr><td>Female</td></tr> <tr><td>Non Binary</td></tr> <tr><td>Other</td></tr> </tbody> </table>	Male	Female	Non Binary	Other							
Male													
Female													
Non Binary													
Other													
4	What status best describes your normal activities:	<table border="1"> <tbody> <tr><td>School student</td></tr> <tr><td>Tertiary Student</td></tr> <tr><td>Employed</td></tr> <tr><td>Self Employed</td></tr> <tr><td>Retired</td></tr> </tbody> </table>	School student	Tertiary Student	Employed	Self Employed	Retired						
School student													
Tertiary Student													
Employed													
Self Employed													
Retired													

SECTION 1

We are interested here in your general knowledge about AI.

1. **Artificial intelligence is used in everyday life. Which of the following examples uses artificial intelligence?**

		Yes, this is definitely artificial intelligence	No, this is something else,	Not sure
1.	Spell checking and autocorrecting as you type letter (e.g. Microsoft word)			
2.	Wayfinding apps like Google and Waze			
3.	Digital voice assistants (e.g.Siri, Alexa, Cortana)			
4.	A playlist recommended by a music streaming service like Spotify			
5.	Chatbot option for online banking services			
6.	Spam filter on an email application			
7.	Social media platform targeted advertising			
8.	Electronic payment systems for online purchases (e.g. Amazon, PayPal)			
9	Netflix uses AI to view your past viewing history to deliver suggestions to you			
10	Rideshare apps like Uber and Lyft to match riders and automatically calculate fares			
11	Short video and video summaries on TikTok, YouTube, Instagram and Snapchat			
12	Autonomous vehicles that can drive themselves			
13	Traffic light activations			
14	Face identification to access your mobile phone			
15	Elevator wait times			
16	Bus, train and ferry arrival times			
17.	Speed cameras and issuing traffic offences			
18	Mobile phone camera detection while driving			
19.	EFTPOS card usage			
20.	CHAT GPT			

2. Thinking about the following examples, what is your level of trust in the operation of each service?

		Extremely trustworthy	Very trustworthy	Trustworthy	Very untrustworthy	Extremely untrustworthy
1.	Wayfinding apps like Google and Waze					
2.	Digital voice assistants (e.g.Siri, Alexa, Cortana)					
3.	A playlist recommended by a music streaming service like Spotify					
4.	Chatbot option for online banking services					
5.	Spam filter on an email application					
6.	Social media platform targeted advertising					
7.	Electronic payment systems for online purchases (e.g. Amazon)					
8.	Netflix uses AI to view your past viewing history to deliver suggestions to you					
9.	Rideshare apps like Uber and Lyft to match riders and automatically calculate fares					
10.	Short video and video summaries on TikTok, YouTube, Instagram and Snapchat					
11.	Autonomous vehicle that can drive themselves					
12.	Face identification to access your mobile phone					
13.	Traffic Light activations					

3. In general, how often would you estimate you interact with AI:

- a) Almost all of the time
- b) Several times a day
- c) Above once a day
- d) Several times a week
- e) A few times a week

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- f) Once a week
- g) Rarely
- h) Never

4. In general, how does the expansion of AI in your daily life affect your level of trust with AI:

- a) It increases my level of trust in AI
- b) Doesn't change my level of trust in AI
- c) Decreases my level of trust in AI

5. Thinking about online shopping:

How comfortable are you with artificial intelligence being used in product recommendations based on your previous purchases?

- a) Extremely comfortable
- b) Very comfortable
- c) Comfortable
- d) Not comfortable
- e) Very uncomfortable
- f) Extremely uncomfortable

6. Thinking about devices in the home:

A security camera sends an alert when there is an unrecognized person at the door. Would you be comfortable with this kind of service?

- a) Extremely comfortable
- b) Very comfortable
- c) Comfortable
- d) Not comfortable
- e) Very uncomfortable
- f) Extremely uncomfortable

7. Thinking about health products: Are you comfortable with wearable fitness trackers that analyze your personal exercise and sleeping data to generate insights about your own health?

- a) Extremely comfortable
- b) Very comfortable
- c) Comfortable
- d) Not comfortable
- e) Very uncomfortable
- f) Extremely uncomfortable

8. Thinking about driverless vehicles, how comfortable would you be as a passenger in a car being driven by AI?

- a) Extremely comfortable
- b) Very comfortable
- c) Comfortable
- d) Not comfortable
- e) Very uncomfortable
- f) Extremely uncomfortable

9. Do you think developers of artificial intelligence technology have a responsibility to abide by best-practice framework for development including ethical, legal and moral, principles:

- a) Yes
- b) No
- c) Depends on whether the solution is for mandated public use
- d) I don't care

SECTION 2

We are interested to find out about your understanding and awareness of data privacy.

1. What does term : data privacy: mean to you: (select as many of these as you like)

- a) Keeping your personal information to yourself
- b) Control over your information and transactions, and deciding who has access to this information
- c) Other people not having access to my information possession and private life
- d) Privacy doesn't exist in a digital world
- e) Making sure that your information is not being sold to a third party without your knowledge
- f) Crime, hacking, fraud and any threats of illicit activity
- g) General government security policies
- h) Tracking, surveillance, monitoring, covert observations by private corporations
- i) Company policies and how they secure data that you engage with
- j) My personal digital information is only accessible with my permissions and consent
- k) Government regulation around the control of my information, private life and possessions.
- l) Other
- m) No answer

2. In your opinion, how much of your online and offline activity is being tracked by commercial operators such as advertisers:

- a) All or almost all of it
- b) Most of it
- c) Some of it
- d) Very little of it
- e) None of it
- f) Don't know

3. In your opinion, how much of your online and offline activity is being tracked by the government?

- a) All or almost all of it
- b) Most of it
- c) Some of it
- d) Very little of it
- e) None of it
- f) Don't know

4. Are you concerned that your interactions may be shared and used by third party organisations:

- a) Extremely concerned
- b) Very concerned
- c) Somewhat Concerned
- d) Not concerned
- e) I don't care

5. Are you concerned that your interactions may be shared and used by the government:

- a) Extremely concerned
- b) Very concerned
- c) Somewhat Concerned
- d) Not concerned
- e) I don't care

6. How much do you feel you benefit personally from the data that is collected about you (by commercial and: or government operators):

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- a) A lot
- b) Some
- c) A little
- d) None
- e) Don't know

7. Do you think you have any control over the capture of your data and how it is used:

- a) A lot of control
- b) Some control
- c) Very little control
- d) No Control
- e) Don't know

8. Do you have any major concerns with how data privacy is currently organised? Please rank from: Most concern : 1, Least concern : 9.

- a) What information is captured
- b) What information is shared
- c) How it is captured
- d) Who is capturing the information
- e) Who has access to my information
- f) How this information is kept private
- g) What my information is used for
- h) How secure is this information
- i) How long it is stored

9. How important is data security to you when engaging with any digital technology?

- a) Extremely important
- b) Somewhat important
- c) Important
- d) Not important
- e) I don't care

10. How often are you asked to agree to the terms and conditions of a company' s privacy policy:

- a) Almost every day
- b) About once per week
- c) About once per month
- d) Less frequently
- e) Never
- f) No answer

11. Do you read the terms and conditions for every new digital service before agreeing to use it:

- a) Always
- b) Often
- c) Sometimes
- d) Never

12. When you first encounter a new privacy policy, what do you normally do :

- a) Read the document all the way through
- b) Read the document part of the way through
- c) Skim through the document without reading in detail
- d) Save a copy of it for later
- e) Just agree to it (and not read)

13. When you read a privacy policy how much of this do you understand :

- a) Most of it
- b) Some of it
- c) Very little
- d) None of it
- e) No answer

14. Do you think that every service should be proactive and transparent in explaining the use of data capture and the value they gain from this?

- a) Yes all the time
- b) Yes some of the time
- c) Yes, but depends on the application
- d) Not all the time
- e) I don't care

15. What elements below build your trust in a digital technology or service provider, please rank your answers from 1-11:

Because they:

- a) Have a good track record
- b) Provide a clear and transparent T&Cs explaining their use of your data and how it is recorded
- c) Have no record of security breaches, including being hacked
- d) Who has access to your data
- e) Have comprehensive and robust security measures
- f) Have a large user base adopting this technology
- g) Provide accurate information
- h) Adhere to a standard of ethical AI development
- i) The most appropriate recommendations
- j) Provide regular updates to customers on their policies
- k) Other

16. How much government regulation of what companies do with your personal information do you think there should be:

- a) A lot more regulation
 - b) A little more regulation
 - c) The same amount of regulation
 - d) Less regulation
 - e) A lot less regulation
- 2) *Comments box

17. In the present time, there exists a capability to gather individuals: personal information from various origins like their credit and buying histories, internet search patterns, and public voting records, among others, which can be merged to develop in-depth profiles indicating their potential interests and traits. These profiles are utilized by companies and other entities to provide personalized advertisements or exclusive offers, or to evaluate the potential risks posed by individuals as customers.

Before today, to what extent were you familiar with or exposed to this idea:

- a) I am very informed about all of this information
- b) I have some knowledge about this
- c) I am aware of bits and pieces of this
- d) I have not come across this before
- e) Other (please comment)

SECTION 3.

Artificial intelligence (AI) is the use of computer systems to perform tasks normally requiring human intelligence, such as image recognition, speech recognition, decision-making, and translation between languages. This section asks questions specifically about the use of AI in facial recognition.

- 1. We are interested in your current knowledge about the everyday use of facial recognition technology. Which of the following applications do you know already use this kind of technology:**

		Yes, this uses Facial recognition	No, this uses something else,	Not sure
1.	Smartphones - Opening a mobile device using Face ID			
2.	Border Control - Airport biometric security checks for persons of interest			
3	Law enforcement in city streets - Facial recognition technology to identify criminals			
4	Law enforcement in city streets - Searching for missing persons			
5	Banking - ID for payment verification			
6	Public Safety - Surveillance cameras used in a public square to identify anti-social behaviour			
7	Detecting problem gamblers in Casinos for access control			
8	Access control - For corporate meeting rooms and office spaces			
9	Social Media – Automated suggestions for photos tags			
10	Mobile Security – App activation verification			
10	Aviation- Traveler Boarding			
11	Time in Attendance – Bundy clock			
12	Retail and advertising - Digital signage in malls			
13	School attendance – Marking attendance and locating children			

- 2. Thinking about the following examples, to what extent would you be comfortable in the use of facial recognition technology to help these services operate efficiently?**

		Extremely comfortable	Very comfortable	Somewhat comfortable	uncomfortable	Extremely Uncomfortable
1.	Smartphones and smart technology - Opening a mobile device using Face ID					
2.	Border Control - Airport biometric security checks for persons of interest or terrorists					

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3	Aviation-Boarding airplanes					
4	Banking-Payment verification					
5	Public Safety - Surveillance cameras used in a public square					
6	Entertainment - Detecting problem gamblers in Casinos					
7	Access control - Meeting rooms and office spaces					
8	Facebook - Suggest tags for photos					
9	Social Media - App activation					
10	Policing, security and law enforcement - Facial recognition technology to identify criminals and missing persons					
11	Retail and advertising - Digital signage in malls					
12	School attendance - Marking roles and locating children					

3. Are you aware that existing digital advertising displays use facial recognition technology to record your interactions: For example when it is used on large digital advertising signage in shopping centres or digital screens at bus stops?

- a) Yes
- b) No

- 4. Do you think facial recognition technology should be highly visible and identifiable in public spaces: For example when it is used on digital signage machines in shopping centres or external public pedestrian walkways.**
- a) Yes
 - b) Depends on the application
 - c) No
 - d) I don't care
- 5. When facial recognition is being used in surveillance for public spaces, which answer best describes your attitude? For example when installed near stairs, escalators and lifts to prevent accidents.**
- a) It is essential for public safety
 - b) Provides greater accuracy and reduces fraud
 - c) It should require government authorisation for use
 - d) It should be optional for government vendors to implement without public approval
 - e) It is an invasion of my privacy
 - f) It is not essential and requires personal consent
- 6. When facial recognition technology is being used in private spaces (e.g. an office), which answer best describes your attitude:**
- a) It is essential for public safety
 - b) Provides greater accuracy and reduces fraud
 - c) It should require venue authorisation for use
 - d) It should be optional for commercial vendors to implement without public approval
 - e) It is an invasion of my privacy
 - f) It is not essential and requires personal consent
- 7. How do you feel about privacy and consent when digital signage companies capture your facial recognition data and on-sell this data for advertising revenue to third parties:**
- a) I am extremely concerned (and would not agree to it if asked)
 - b) I am somewhat concerned
 - c) I have concerns but also see the benefits / necessity of using this technology
 - d) Not very concerned, or have not fixed opinion against it
 - e) I have no opinion either way
- 8. To increase privacy for users, do you think that there should be clear and public notifications issued to visitors in public spaces if facial recognition technology is being used to identify people:**
- a) Yes, this is essential
 - b) Yes there should be a notice somewhere accessible
 - c) No, this is not needed for public spaces
 - d) It depends on the context
 - e) I have no opinion on this

THANK YOU for your answers to these questions.
This concludes the survey.

Follow-up interview

We would also be interested in having you take part in a short (15 min.) interview to discuss these questions/ issues in a little more detail. If you are open to this possibility please leave your contact details below.

Please note that any contact details you provide will be detached from your survey answers so they remain anonymous. We will not be able to question you about your posted answers to this survey.

Leaving your details just means you are happy for us to contact you to send you information about the interview. We will then ask for your separate consent for this, and if agreed by you, we will organize a face-to-face meeting, phone call or zoom-meeting at your convenience.

If you are not interested in participating in an interview, simply click "Done"

Yes
Done

Suggestions for Improvement:

Name:

Email Address:

Phone Number: