



Ethical AI Symposium, UTS Transdisciplinary School, 25th August 2022
<https://events.humanitix.com/uts-ethical-ai-symposium-full-program-announced>

AI ethics in **education...** **...and who gets to say what** **“ethical AI” means in the trenches?**

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GRADE POINT

Mount St. Mary's University president resigns

By Susan Svrluga

February 29, 2016 at 9:05 p.m. EST



'You have to drown the bunnies, put a Glock to their heads'



<https://www.washingtonpost.com/news/grade-point/wp/2016/02/29/mount-st-marys-future-direction-on-the-table-as-leaders-meet-today/>
<https://www.mindingthecampus.org/2016/02/10/you-just-have-to-drown-the-bunnies-put-a-glock-to-their-heads/>

What is the **burden of knowledge** now that predictive models can...

...accurately quantify a student's
risk of failure 4 weeks into
semester?

Georgia State University

800+
ANALYTICS-BASED
ALERTS

10 YEARS OF DATA | 2.5 MILLION GRADES

144,000
STUDENT RECORDS

30,000 DAILY
STUDENTS TRACKED

The screenshot shows the Georgia State University website. At the top left is the Georgia State University logo. To its right is a navigation menu with the following items: "Georgia State Home", "STUDENTS", "FACULTY & STAFF", "ALUMNI", a calendar icon, a book icon, and a search icon. Below this is a secondary navigation bar with "Approach", "Initiatives", "News", "Talks", "Resources", "Staff", and "Contact". The "Approach" tab is active. Below the navigation is a large blue button labeled "INTRODUCING THE NISS". The main content area features a headline: "We proved students from all backgrounds can succeed at the same levels." Below the headline is a paragraph: "Georgia State is a national model for student success. Over the past decade, the university has increased our graduation rate by 23 points. We're graduating 2,800 more students a year than just five years ago and we've reduced the time to degree by half a semester, saving students \$18 million a year. We've eliminated achievement gaps based on race, ethnicity or income. Learn more about how we've come so far, so fast." To the right of the text are four call-to-action buttons: "The National Institute for Student Success" (with a group of people icon), "Learn About Our Initiatives" (with an information icon), "The Story Behind the Approach" (with a play button icon), and "Read Reports and White Papers" (with a document icon).

<https://success.gsu.edu>

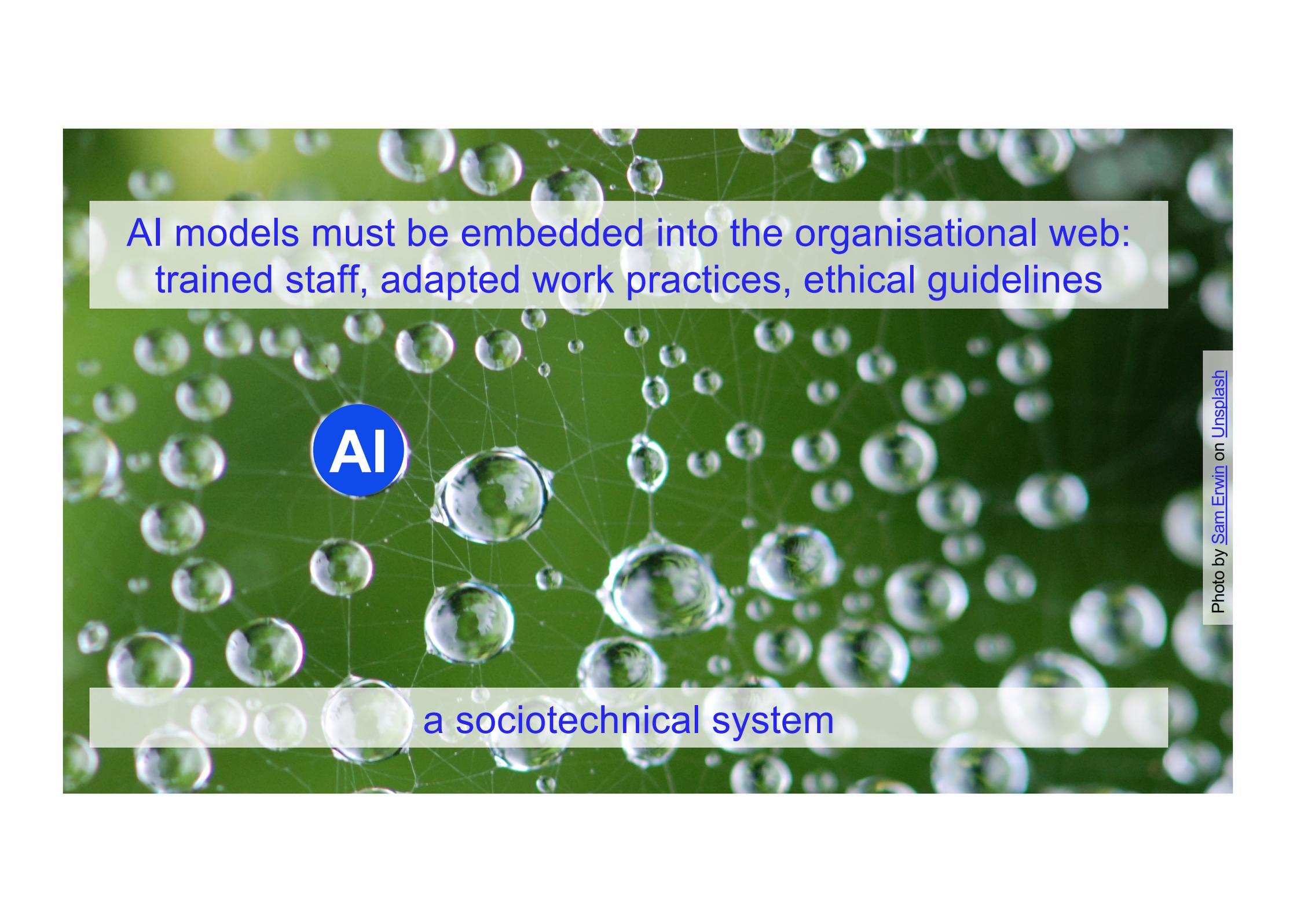
The Open University UK

Risk of not submitting the next assignment
Predicted assignment grade
Predicted course Pass/Risk/Fail

Predictions
 25
Export
Search columns

Student PI	Name	Tutor PI	TMA	Risk of non-submission	Next TMA prediction	Next TMA grade prediction	Risk of Failure	Final result prediction
Student1 PI	X000000X	Tutor1 PI	85 84 87		Submit	Pass 3		Pass
Student2 PI	X000000X	Tutor2 PI	88 74 41		Submit	Pass 3		Pass
Student3 PI	X000000X	Tutor3 PI	78 88 89		Submit	Pass 3		Pass
Student4 PI	X000000X	Tutor4 PI	75 83 84		Submit	Unknown		Pass
Student5 PI	X000000X	Tutor5 PI	82 86 85		Submit	Pass 2		Pass
Student6 PI	X000000X	Tutor6 PI	72 82 78		Submit	Unknown		At risk
Student7 PI	X000000X	Tutor7 PI	75 85 84		Submit	Pass 2		Pass
Student8 PI	X000000X	Tutor8 PI	85 70 84		Submit	Pass 3		Pass
Student9 PI	X000000X	Tutor9 PI	88 70 87		Submit	Pass 3		Pass
Student10 PI	X000000X	Tutor10 PI	85 78 83		Submit	Pass 4		Pass
Student11 PI	X000000X	Tutor11 PI	82 85 84		Submit	Pass 3		Pass
Student12 PI	X000000X	Tutor12 PI	75 80 84		Submit	Pass 3		Pass
Student13 PI	X000000X	Tutor13 PI	75 82 NS		Not submit	Not Submit		Fail
Student14 PI	X000000X	Tutor14 PI	85 88 89		Submit	Pass 3		Pass
Student15 PI	X000000X	Tutor15 PI	82 85 84		Submit	Pass 3		Pass
Student16 PI	X000000X	Tutor16 PI	85 88 87		Submit	Pass 3		Pass
Student17 PI	X000000X	Tutor17 PI	50 NS NS		Not submit	Not Submit		Fail
Student18 PI	X000000X	Tutor18 PI	85 85 73		Submit	Pass 3		Pass

<https://analyse.kmi.open.ac.uk>



AI models must be embedded into the organisational web:
trained staff, adapted work practices, ethical guidelines

AI

a sociotechnical system

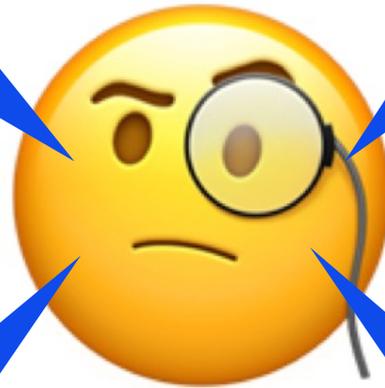
Predictive modelling of student outcomes raises ethical questions, e.g., in addition to standard FATE questions...

Do students have the right to know that they have been AI-flagged as at risk?

Is the university more obligated to act on an AI prediction than pre-AI?

Should predictive models be “colour-blind” to ethnicity?

What are the causes, and consequences, of misclassifying a student?

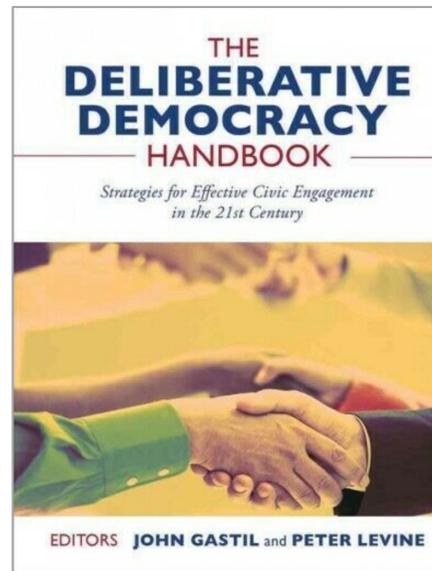
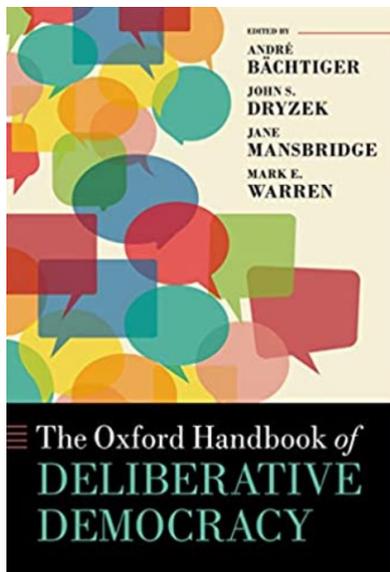


AI ethics principles are helpful abstractions.

But how does a community decide what ethical AI **really looks, smells and feels like on a Monday morning?**

Candidate: Deliberative Democracy

Deliberative Democracy is both political theory and practical methodology, tested at local community → national scale



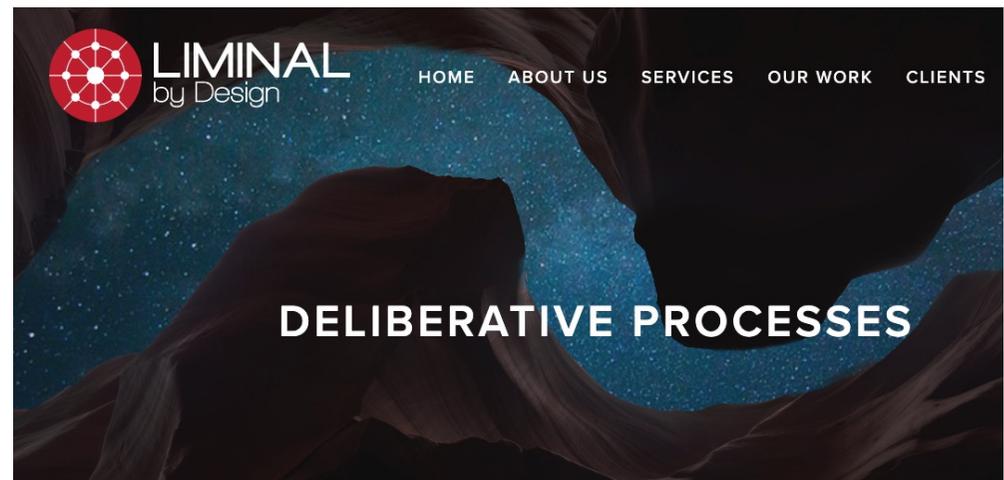
UTS Open courses from the Institute for Sustainable Futures open.uts.edu.au

- [Leading Deliberative Democracy](#)
- [Doing Deliberative Democracy](#)

Deliberative Democracy facilitators connect the theory to practice with real communities facing hard choices



<https://www.newdemocracy.com.au>



<https://liminalbydesign.com.au>

The “EdTech Ethics” Consultation — 5 online Deliberative Democracy workshops with UTS students, casual tutors and academics

Sept. 2021  Dec. 2021

**Recruit a
“Deliberative
Mini-Public” of 20
students and staff**

Commit to learning
from ‘expert witnesses’
and to reflective
deliberation

**Identify, discuss
and prioritise
principles and
examples**

Numerous hands-on
activities to help them
engage with potential
ethical dilemmas

**Present principles
to UTS experts and
leadership, and
engage with data
governance**

→ 2022: inform and
align with UTS AI
ethics

The closing presentation from the EdTechEthics consultation

UTS EdTech Ethics Deliberative Democracy Consultation Closing Presentation

UTS CIC
CONNECTED SCIENCE CENTRE

Craig Napier: Chief Data Officer, UTS

Deborah Naray: Head, Corporate Information, UTS

Verity Firth: Director, Centre for Social Justice & Inclusion, UTS

Camille Dickson-Deane: Senior Lecturer, UTS Science

Walter Jarvis: Lecturer, UTS Business School

Taylor-Jai Mcalister: Postgraduate, UTS Health

Elsa Baker: Undergraduate, UTS Design, Architecture & Building

UTS

EdTech Ethics

A UTS Deliberative Democracy Consultation (Oct. - Dec. 2021)

<https://cic.uts.edu.au/projects/edtech-ethics>

EdTechEthics principles and tangible examples of how they play out for UTS students, educators and the institution



The UTS “EdTech Ethics” Deliberative Democracy Consultation: Rationale, Process and Outcomes

Simon Buckingham Shum
Professor of Learning Informatics
Director, Connected Intelligence Centre, University of Technology Sydney
31st January, 2022





6.3 Bias/Fairness

Principle: UTS should aim to reduce bias involved in AAI-EdTech programs, and maintain the fairness in their development, use, and application of these tools.

Rationale: Bias: The application of AAI-EdTech programs may incur a level of bias as it is modelled against the majority of the population. It needs to be developed, maintained and reviewed to ensure nuances and inferences are not biased against minority groups/individuals

Fairness: The use of AAI-EdTech programs need to consider fairness, as inevitable biases in tech to Aboriginal, CALD, minority groups as well as other groups/individuals

Examples

Students

- AAI-EdTech that discriminates against minority groups in terms of access and environment.
- An example of where there might be internet connection issues during exam proctoring, which could be a socio-economic issue [we need to address equity as separate yet interconnected issues].

Educators

- Overseas students, with English as a second language and different usage of platforms. Their engagement may be less, in comparison to those who are very tech savvy. Or, cultural dimensions, such as loss of context in learning from different cultural backgrounds?
- Educators are provided with training programs to ensure they are aware of biases that may be present in these AAI-EdTech systems (or to correct biased assumptions in their use of the analytics and data provided by these EdTech systems)

University

- UTS reviews the biases and fairness of existing AAI-EdTech systems through a panel made up of minority groups (including First Nations people) throughout the university community, and either corrects any gaps or addresses any biases in that system, or if that's not possible, removes the EdTech system

6.4 Equity and Access

Principle: UTS should aim to ensure that AI-Edutech programs promote social justice and are equitable and accessible. This includes ensuring equitable access to information and technology that is delivered in language and formats that reflect the diverse needs of the UTS community and equitable access and input to the review of AI-Edutech systems

Rationale: Technology should promote social justice, affirmative action and positive discrimination (rather than merely preventing inequities). Access encompasses both access to information and access to technology in the fields of learning and teaching. Technology is not solely limited to just the hardware/software but also the processes around using them. It needs to reflect the diverse needs of people with disability, disadvantages, Indigenous Australians and other diversities. AI-EduTech programs need to be constantly reviewed to ensure social justice (that they are equitable and accessible). It needs to be implemented and championed across the full life-cycle, from design to implementation and throughout the full period of usage. Continuous review is necessary to identify when programs are no longer serving users and these services need to be taken out of circulation

Examples

Students

- Ensuring that anything one consents to is in language that is easy to understand and engage with easily [links to consent prior to use]
- Students are provided with training programs to bridge the gap between the use of hardware and/or software that underpin the technology required to use in their studies

Educators

- Overseas students, with English as a second language and different usage of platforms. Their engagement may be less, in comparison to those who are very tech savvy. Or, cultural dimensions, such as loss of context in learning from different cultural backgrounds, disabilities and disadvantages.
- Equity and access applies just as much to educators as it does to students. Ensuring that the students maintain the majority of responsibility over their own learning systems and the best practices for how to incorporate it into their learning in a way that most benefits their students

University

- An accessibility panel, including students, faculty representatives and accessibility experts, reviews the technology prior to procurement (ensures design of technology).
- UTS reviews the accessibility of existing AAI-EdTech systems through an accessibility panel, and either corrects any gaps in accessibility or removes the AAI-EdTech system.

6.6 Human Authority

Principle: UTS commits to preserving human autonomy, agency and decision-making while harnessing the opportunities presented by AAI-EdTech

Rationale: AAI-EdTech presents many opportunities and affordances in the educational context. These are likely to grow in both number and complexity in the future. AAI-EdTech has potential to free educators from repetitive tasks so they can have more meaningful interactions with students and each other. For students, it has potential to personalise the learning experience and enhance formative and self-regulated learning opportunities. However, human educators bring an important dimension to the education process that cannot be fully replicated by AI or captured solely by an algorithm. AAI-EdTech should therefore be a tool or an assistant to students and educators, but should not replace human decision-making. AAI-EdTech systems should be designed with safeguards that allow human input, interventions and challenges to outcomes at appropriate points.

Examples

Students

- AAI-EdTech systems that allow self-pacing / self-regulated preparation for live classes (examples?)
- AAI-EdTech tools (eg, AcaWriter, dashboards) that help students improve their own work
- Formative not summative use of these tools
- Student right to opt-out (Q: technical feasibility?)
- Ensuring that the students maintain the majority of responsibility over their own learning (instead of leaving it all up to AAI-EdTech)
- Students may have a learning disability that a human educator can customise learning for.
- A student can be rest assured that the information collected by an AAI-EdTech tool will have a human that understands the unique challenges the student faces. For example, students may have a learning disability that a human educator can customise learning for.
- Maintaining the choice to be able to opt for a face-to-face or direct to tutor option over choosing AAI-EdTech feedback or assistance.
- Students not boxed in by a one-size fits all AAI-EdTech system that doesn't take into account the diverse needs of individual students

<https://cic.uts.edu.au/projects/edtech-ethics>



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Thank You!



Slides on
my blog