

Deliberative Democracy as a participatory approach to co-designing the ethical governance of Learning Analytics and AI

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Educational institutions are implementing data-intensive, increasingly algorithmically-powered intranets to underpin Learning Analytics (LA), and now Artificial Intelligence (AI). Currently, there are few strongly theorised, empirically validated processes for institutions to consult their communities about the ethics of these infrastructures, and the principles that should govern their use. We were confronted by this question: *“How can our university engage in ethical co-production with our diverse community about their values, concerns and expectations regarding the educational uses of LA/AI?”*

We introduced Deliberative Democracy (DD), a participatory methodology which emerged in response to the crisis in confidence in how typical democratic systems engage citizens in decision making. DD emerged as a “deliberative turn” in democratic theory around 1990, in response to the crisis in confidence in how poorly typical democratic systems engage citizens in decision making. DD works by creating a *Deliberative Mini-Public (DMP)*. DMPs can be convened at different scales (organisation; community; region; nation) and can take many forms, including Citizens’ Juries; Citizens’ Assemblies; Consensus Conferences; Planning Cells; Deliberative Polls. A DMP has three core features: (i) *Influence*: The process should have the ability to influence policy and decision-making; (ii) *Inclusion*: The process should be representative of the population and inclusive of diverse viewpoints and values, providing equal opportunity for all to participate; and (iii) *Deliberation*: The process should provide open dialogue, access to information, respect, space to understand and reframe issues, and movement toward consensus. Stratified sampling mitigated the risk of excluding important sub-populations who might otherwise be missed in purely random sampling, or who might not have the resources or confidence to show up to an open meeting.

In 5 facilitated workshops over 7 weeks, the DMP practised skills in critical thinking, learnt LA/AI terminology, how to write principles, and ways to test their level of consensus. The group was also introduced to university systems, imaginary use cases/vignettes, as well as potential future scenarios by guest experts. In the closing workshop, four members were elected by their peers to introduce the draft principles to three senior university leaders.¹

¹ UTS EdTech Ethics Deliberative Democracy website: <https://cic.uts.edu.au/projects/edtech-ethics>

Evaluation of this process took the form of interviews conducted with students, educators, and leaders. Findings highlight that this methodology facilitated a unique and structured co-production process, enabling a range of higher education stakeholders to integrate their situated knowledge through dialogue. The DD process and product cultivated commitment and trust among the participants, informing the university's new AI governance policy. To our knowledge, this is the first application of DD for AI ethics, as is its use as an organisational sensemaking process in education, and student workshops have continued since, in response to the university's introduction of predictive modelling, and generative AI.

This work is fully documented in a forthcoming publication:

Swist, T., Buckingham Shum, S. & Gulson, K. N. (In Press). Co-producing AIED Ethics Under Lockdown: An Empirical Study of Deliberative Democracy in Action. *International Journal of Artificial Intelligence in Education*. [[preprint](#)]