

Can digital democracy help communities navigate environmental resilience challenges?



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Digital democracy design for climate resilience: Crowdsourcing consensus, understanding division and supporting collective reflexivity

This research explored how Polis, an open-source digital democracy platform, can support communities to navigate contentious climate resilience issues. Through two Australian case studies on air travel emissions and extreme heat preparedness, the study examined how online processes can crowdsource ideas, reveal disagreement, highlight consensus and foster collective reflection.

Collective decision making is foundational to climate and disaster resilience. Yet communities encounter common pitfalls including: low levels of engagement; tendencies for disagreement to attract most attention while common ground is obscured; and inertia arising from complex distributions of agency and responsibility across individuals, organisations and governments.

Two action research case studies

The study piloted and evaluated two online participation processes using Polis, an open-source digital democracy platform which enables participants to respond to a prompt by submitting short, anonymous comments and voting (agree, disagree or pass) on comments from others. There is no direct reply button, reducing the conditions for interpersonal conflict while still allowing diversity of opinion to surface.

The two action research case studies focused on staff air travel emissions at the University of Melbourne and extreme heat preparedness in an urban local government area. Analysis integrated data generated through the Polis consultations (n=286), surveys beforehand (n=345) and afterwards (n=113), ethnographic records and qualitative interviews (n=19).

Designing for traction on collective action problems

Below are some key findings, organised according to the three democratic principles of focus, which correspond to the pitfalls mentioned earlier.

Participation was active and sustained over multiple weeks, with many people returning multiple times. Combining both case studies, 286 participants submitted 688 comments and more than 39,000 votes. Most reported that the process was engaging and that they felt comfortable to express their views honestly.

Solution-oriented pluralism: the process enabled many ideas to be crowdsourced, while the votes provided insight into collective appraisal of the proposed actions. Strong lines of disagreement were particularly evident in the air travel case study, along with clear points of consensus, indicating low-hanging fruit for priority action. In the extreme heat case study, the more combative tone of a parallel discussion on Facebook provided a striking comparison.

Collective reflexivity: many participants learned from others' comments and reconsidered where responsibility lies and reflected on opportunities for possible action.

Findings also highlights cautions, e.g.: Polis' automated visualisations were useful in many ways, but careful human analysis was needed to draw out nuanced findings and reduce risks of misinterpretation.

Democratic design

Beyond the case study findings, this research offers a model of democratic design which can be used for planning, implementing and analysing future democratic initiatives. There are no silver bullet processes that accommodate all community contexts, needs and priorities: instead this design-based approach can support the flexibility, diversity and thoughtfulness needed to expand communities' democratic toolkits and support resilience.

DEMOCRATIC PROCESSES USING POLIS FOR CLIMATE RESILIENCE		
AIR TRAVEL CASE STUDY		EXTREME HEAT CASE STUDY
		
"What should we do about staff air travel emissions at the University of Melbourne?"	PROMPT	"As a community, how should we better prepare for and cope with extreme heat?"
Staff at a university 2 weeks in Sep 2022 173 people 326 comments >22,000 votes	WHO & WHEN	An urban LGA community 5 weeks in Feb-Mar 2024 113 people 362 comments > 17,000 votes
	PARTICIPATION	



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