

Legislative Simulacrum: Co-designing AI-powered virtual lawmaker simulations to train community advocates for public health advocacy

Authors: Stanley Huang {stanh@bu.edu}^{1,4}, Alexandra Xu², Joshua Ashkinaze³, Jill R. Kavanaugh⁴, Ceren Budak³, S. Bryn Austin^{4,5}

Affiliations: ¹ Boston University, ² Rice University, ³ University of Michigan, ⁴ Boston Children's Hospital, ⁵ Harvard T.H. Chan School of Public Health

Background

Community advocacy critically influences public policy; however, community advocates face:

- Limited time and resources
- Uncertainty about legislative procedures
- Lack of insight into idiosyncratic behavior of lawmakers, such as difficulty anticipating lawmakers' priorities and communication style



Where the world comes for answers



Objective

Co-develop an interactive training tool that lets community advocates practice legislative conversations with simulated lawmakers, preparing them for real-world advocacy.

Methodology

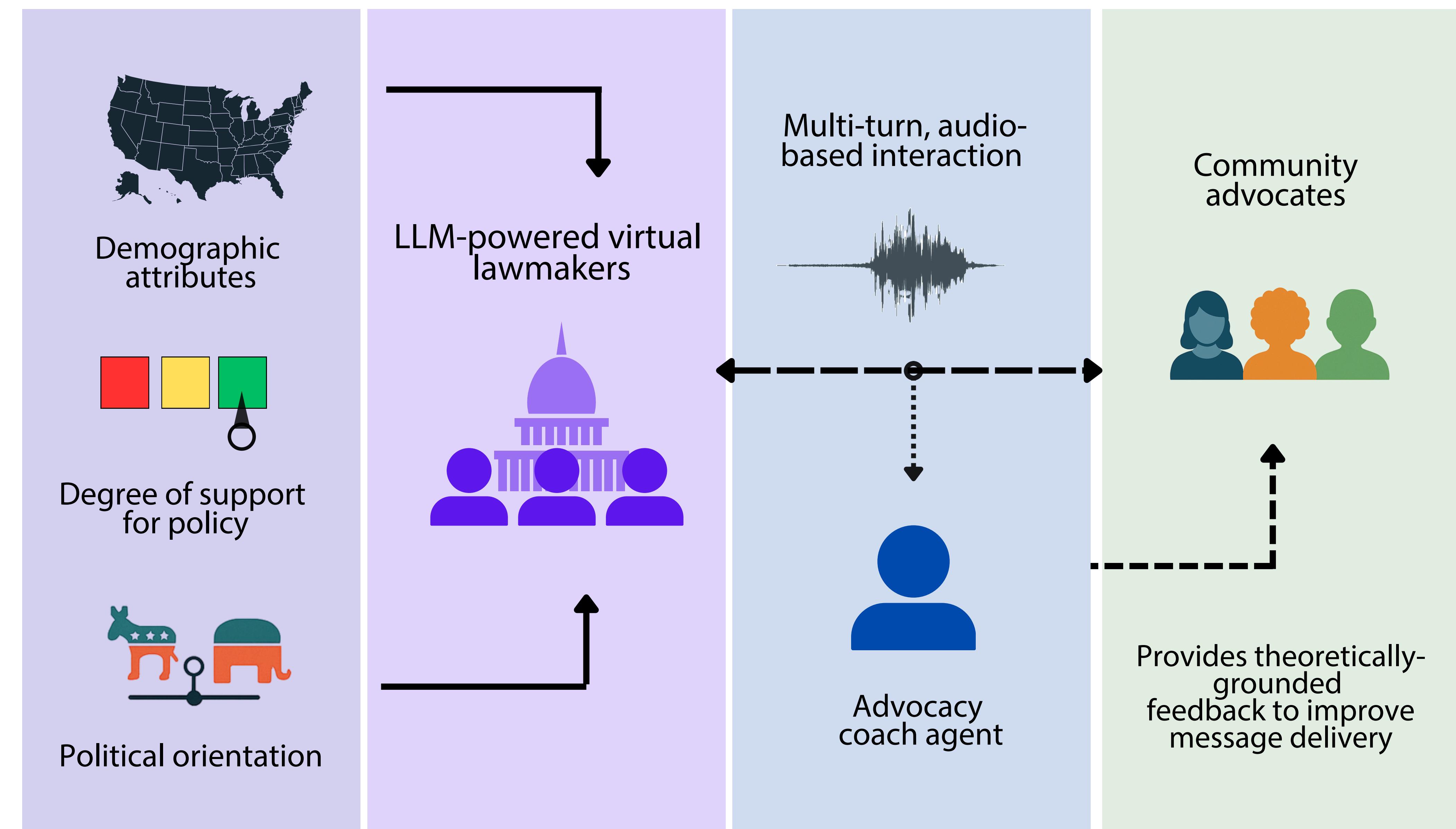
- Tracked and performed needs assessment through contextual inquiry with advocacy groups over a period of 2 months.
- Integrated advocates' feedback into systems design.
- Built a working prototype on AWS EC2 (nginx server with Svelte frontend and Python backend) to ensure secure, scalable use.

Results

User data

- 1 User forms capture demographic details and policy topic for context

System Design



- 2 Prototype interface allows for real-time conversations with virtual persona-generated lawmakers powered by GPT-4o.



- 3 Exit page for end of meeting



- 4 Feedback reports highlight actionable insights, grounded in risk communication strategies

Conclusion

Our co-participatory design process directly shaped the tool's architecture, embedding stochastic elements to mirror real-world variability and a scaffolded experience to support advocates at varying levels of readiness. The next phase will be to evaluate the tool's effectiveness in capacity-building and user self-efficacy.

We really appreciate your thoughts on this bill.

Lawmaker images are generated from thispersongdoesnotexist.com