Institutional Design for Al-enabled Deliberation

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Abstract

AI applications such as summarization and translation have the potential to enable mass deliberation. However, governments need institutional and practical guidance to implement AI features in deliberative processes that are still meaningful. The AI4Deliberation project aims to design both practical AI tools and comprehensive guidance to support governments in their efforts towards AI-enabled deliberation. In this workshop, we want to explore the requirements and conditions for the institutional context of AI-enabled deliberation.

Keywords

Deliberative democracy, artificial intelligence, institutional design, practical guidelines

1. Introduction

Deliberative democracy is a democratic theory that concentrates on processes of reason-giving between free and equal citizens in order to justify decisions [1]. Studies on deliberative processes show that these processes can result in good and legitimate policies when conducted under specific conditions, such as small groups of deliberators, and facilitation of the discussion by a moderator [1]. These conditions imply that deliberative quality would be negatively affected by scaling up deliberation, and that deliberation cannot transcend mini-publics. However, the emergence of Generative AI (GenAI) has brought new possibilities to attain meaningful mass deliberation. GenAI features such as summarization, fact checking, and translation can reduce the resources needed to upscale deliberation or overcome language barriers, and information overload.

Notwithstanding, the implementation of GenAI into deliberation poses considerable challenges [2]. Earlier digital technologies have not fulfilled their promise of enhancing deliberation or participation. This is in part due to a focus on the technology, as is also observed in the case of AI-enabled deliberation [3]. However, the implementation of a well-functioning summarization tool into a deliberative platform does not guarantee a meaningful, sustainable, and ethical deliberative process. On the other hand, the actual implementation of AI in deliberative practices has not yet been experimentally tested widely.

Authors stress the importance of the design of deliberative processes, and of a socio-technical perspective on AI-enabled deliberation [4, 5]. Following Koppenjan and Groenewegen [6], these two can be brought together by first establishing the structure of the deliberative process. Thereafter, the technological and institutional artefacts that can instigate and shape this process should be congruently designed. Institutional design comprises all social rules that structure the behavior of actors in the deliberative process [6] and has always been a critical aspect of deliberation [4].

2. Al4Deliberation project

The Horizon project AI4Deliberation aims to explore the technological and institutional aspects needed to realize the potential of AI-enabled deliberation [7]. The project aims to provide robust, ethical AI tools that support governments in achieving multimodal, gamified, mass deliberations, resulting in more active and inclusive citizenship and increased trust in the rule of law order by citizens. The AI tools

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will be accompanied by comprehensive guidance to assist government in institutionalizing, designing, and using AI tools in deliberative processes.

This guidance is delivered through a comprehensive framework that prescribes the institutional context that ensures effective, safe, and meaningful enactment of AI-enabled deliberation in the public domain. The framework will comprise practical guidelines, policy recommendations, road maps, investment decisions, and training material for capacity building. The framework will be developed through co-creation and deliberation. A first step is to define conditions and requirements for the institutional design of AI-enabled deliberation.

3. Workshop objective and program

This workshop aims to gather researchers to explore the implications of this new topic and to discuss the conditions, requirements, and challenges related to institutionalizing AI-enabled deliberation. We will start with introducing the AI4Deliberation project and the comprehensive framework, but will shortly turn to an interactive co-creation session. We invite researchers from a broad range of disciplines to share their perspectives on this novel and relevant development in democratic practices and digital government. We will share our insights on AI-enabled deliberation gained in our project so far. But, most of all, we hope to collectively further the knowledge on this pressing topic.

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Declaration on Generative Al

The author(s) have not employed any Generative AI tools.

References

- [1] A. Gutmann, D. F. Thompson, Why Deliberative Democracy?, Princeton University Press, Princeton, NJ, 2004.
- [2] N. Alnemr, Emancipation cannot be programmed: blind spots of algorithmic facilitation in online deliberation, Contemporary Politics 26 (2020) 531–552. doi:10.1080/13569775.2020.1791306.
- [3] R. Shortall, A. Itten, M. van der Meer, P. Murukannaiah, C. Jonker, Reason against the machine? future directions for mass online deliberation, Frontiers in Political Science 4 (2022). doi:10.3389/fpos.2022.946589.
- [4] D. Friess, C. Eilders, A systematic review of online deliberation research, Policy and Internet 7 (2015) 319–339. doi:10.1002/poi3.95.
- [5] J. A. Carstens, D. Friess, Ai within online discussions: Rational, civil, privileged?, Minds and Machines 34 (2024). doi:10.1007/s11023-024-09658-0.
- [6] J. Koppenjan, J. Groenewegen, Institutional design for complex technological systems, International Journal of Technology, Policy, and Management 5 (2005) 240–257. doi:10.1504/IJTPM.2005.008406.
- [7] E. Tambouris, Artificial intelligence for mass democratic deliberations: The ai4deliberation project objectives and methodology, in: Proceedings of the 13th. Computing Conference, 2025. [accepted for publication].