

第4章 Online Deliberation Systems: Design, Current State and Future Directions

ABSTRACT

Over the last three decades, deliberative democracy has received increasing interest from researchers. While accepting that the practice of deliberation is the cornerstone of democracy and community politics, the purpose of this paper is to offer a narrative-type review of online deliberation systems. Several examples will be introduced and a discussion on the future of online deliberation systems will be included.

I. INTRODUCTION

Although its roots can be traced back to Aristotle, often researchers use Jurgen Habermas' theory of deliberative democracy as a starting point [1]. Many researchers have attempted to answer why and when public deliberation should be used (e.g. [2]). The overwhelming conclusion is that public deliberation connects people, regardless of whether their interests are aligned or conflicting. This is done in a way that allows them to “make decisions and act in regard to problems or challenging circumstances” [3]. While certain possibilities cannot be envisaged by individuals alone, the act of deliberation can reveal such new possibilities for action.

Public deliberation systems started being developed around the year 2000. A large body of research is dedicated to explaining the need and usefulness of public deliberation. To consider one example, Solomon and Abelson [2] pointed out that, compared to other approaches, the outcomes of public deliberation can be feasible, accountable, balanced and inclusive recommendations, enabling more legitimate policy decisions. Moreover, very importantly, public deliberation may have intrinsic value, “increasing public-spiritedness, buy-in, and trust in governing institutions and their decisions” [2].

A natural question arises here: what is a “successful” deliberation? While admitting that there are various ways to assess this quality, according to Levine et al. [4], a successful deliberative initiative includes the following: a) a realistic expectation of influence (a link to decision makers), b) an inclusive, representative process that brings the public and the stakeholders together, c) an informed, conscientious discussion, d) neutral and professional staff that help participants “work through a fair agenda”. Over time, ideally, the deliberation initiative should also e) earn public support for its final recommendation and f) should be sustainable.

II. ONLINE DELIBERATION BACKGROUND

As stated by Goelman and Goetze in 2001, “the biggest obstacle in making participatory democracy work in practice is the difficulty of organizing large-scale political discussions” [5]. Bringing a large number of people together to deliberate face-to-face is not easy to achieve; the internet is capable of solving this problem and this brings us to online deliberation.

Online deliberation is a broad term covering various ways and forms of discussions involving communities and relying on information and communications technology (ICT). As stated by Kennedy et al., taking advantage of the capacity to engage a large number of citizens, ICT “can scale up deliberations by removing barriers to participation such as time and distance” [6].

Various inter-related terms have been used by researchers throughout the past twenty years. Terms like “digital deliberation”, “online deliberation” and “e-deliberation” are often used interchangeably.

Crispin Butteriss (founding director of Bang the Table, creators of EngagementHQ, an online community engagement platform [7]) emphasizes the difference between dialogue and deliberation. Whereas dialogue is an exchange of ideas with the aim of reaching an amicable agreement/settlement, deliberation involves careful weighing, studying, considering and it is a “slow” process. Dialogue is one pathway to deliberation, but it is not the only one. In a digital context, there is less opportunity for dialogue, but there is always opportunity for deliberation [8].

III. ONLINE DELIBERATION SYSTEMS – DESIGN CONSIDERATIONS

Academic research of online deliberation systems started in the early 2000s [9]. One of the most important research works dealing with design considerations of online deliberation systems was published in 2011 by Davies and Chandler [9].

In their work, the authors considered five design categories, as follows:

- a) purpose – why the system is designed (considering outcome and collectivity);
- b) population – who will be involved (selected or random population, public or private);
- c) spatiotemporal distance - where/when interaction takes place (face-to-face or not, synchronous/asynchronous);
- d) communication medium – how communication takes place;
- e) deliberative process – what occurs between the participants.

In other research work, Towne and Herbsleb [10] organized the design considerations of online deliberation systems into 5 main categories, as below.

- a) Design to attract contributors – the value of a deliberation system depends on its ability to attract participants and content
- b) Design for navigability – content should be easy to locate, and contributors should easily find out the best place to contribute
- c) Design for usability – maximizing ease of use, employing secure, stable, responsive technology
- d) Design for quality content – ability to distinguish accurate, high-quality information from noise
- e) Design for adoption – increasing the likelihood that the system will be adopted beyond its initial testers

More recently, a practical perspective with regard to online deliberation systems’ functionality was brought by Sally Hussey [7], from Bang the Table, a company that created EngagementHQ, an online community engagement platform [7]. She states that there are 8 crucial aspects in the functionality of software for online deliberation, as follows:

- i . supporting a variety of online activities (quick polls, surveys, idea ranking, digital storytelling etc.);
- ii . activating multiple deliberative tools (not only simple text, but “likes: or “votes”, as well, for instance);
- iii . allowing asynchronous discussions (for deeper deliberation, allowing inclusiveness etc.);
- iv . enabling ease of use;
- v . providing ability to identify facilitators (avoiding privileged participants etc.);
- vi . enabling participants to engage freely and without judgement;
- vii . providing automated notification;
- viii . allowing quantitative and qualitative analysis.

IV. ONLINE DELIBERATION SYSTEMS – EXAMPLES

Several initiatives to create and test deliberation systems exist. On one hand, several researchers have proposed theoretical versions of deliberation systems; on the other hand, researchers have worked with software developers and created practical systems, some of which are still in use today. This section will provide several examples of deliberation and community engagement systems.

As far as “theoretical” examples are concerned, two such systems were proposed in the past 6 years: Public Online Deliberation System, proposed in 2019 by Triantafyllou et al. and detailed in [11] and Massive Open Online Deliberation Platform, proposed by Verdiesen in 2016 [12]. (Whether these two systems have gone beyond the testing phase and whether they are available to the general public is unknown. Online search of these systems yielded no results.)

The following section describes several deliberation and community engagement systems, available online.

1. Debate Hub

URL: <https://debatehub.net/>

Debate Hub was developed by the Open University’s Knowledge Media Institute [13]. As shown by its creators, the platform was born out of necessity for “effectively identifying and pursuing socially innovative ideas”. It is a tool created for community deliberation, with the following purpose: “raise issues; share ideas; debate the pros and cons; and prioritise contributions in order to collectively organise and progress good ideas forward” [14]. Large-scale argumentation is possible and advanced analytics and visualizations are available.

This platform ensures “informed participation” to public debates by providing a collective intelligence visualization dashboard with summary analytics and attention mediation feedback.

Fig. 1 shows a screenshot of Debate Hub, displaying the newest discussion groups.

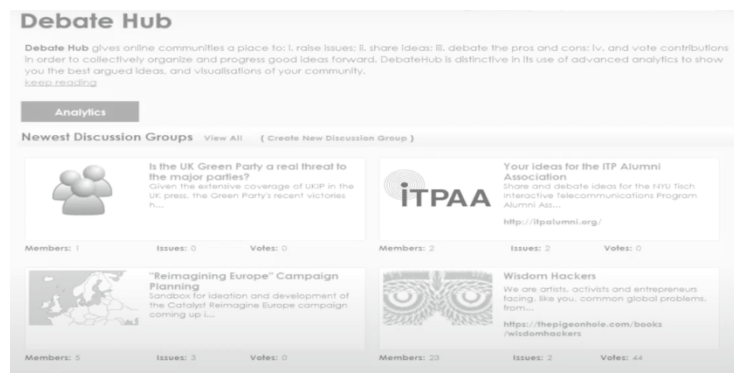


Fig. 1 Debate Hub - Newest Discussion Groups

The main features of Debate Hub are:

- a grouping mechanism (for creating discussion groups);
- a moderator toolbar enabling management of debates by merging and splitting ideas/arguments;
- a visualization dashboard (providing useful visualizations to the participants).

In Fig. 2, various types of advanced analytics, like debate network, activity and user activity analysis, are exemplified for a given issue.

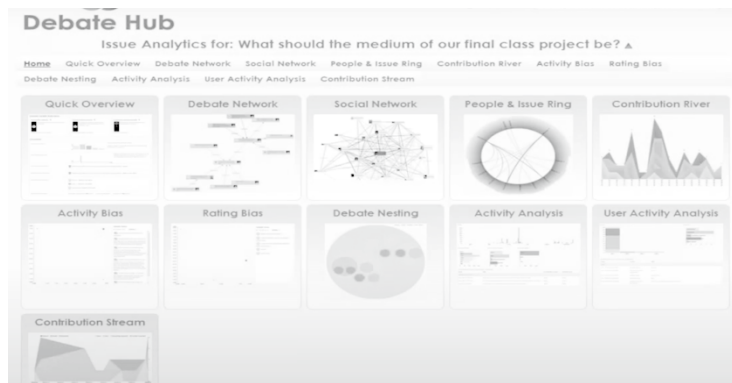


Fig. 2 Debate Hub - Advanced analytics

In-depth analysis is also provided, as can be seen from the “People & Issue Ring”. In this type of visualization, a member can be selected and information about the issues they participated in is displayed, as well as the type of participation (see Fig. 3).

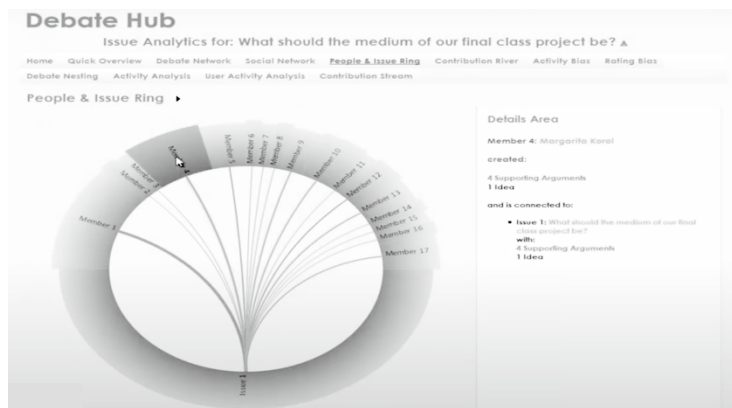


Fig. 3 Debate Hub - People & Issue Ring

The DebateHub Visualization Dashboard, as a collective intelligence visualization dashboard, acts also as a tool for community managers to monitor their community, promote attention and prioritize community’s resources and actions.

2. LiquidFeedback

URL: <https://liquidfeedback.com/en/index.html/>

LiquidFeedback is an open-source software platform available in German, English and Spanish. It is a “proposition development and decision-making software” [15] used by municipalities, political parties, social movements, associations, private organizations and companies.

It works by proposing various initiatives (ideas, proposals etc.), which can be supported by the participants. Fig. 4 shows a screenshot of the system, where support can be refreshed or removed.

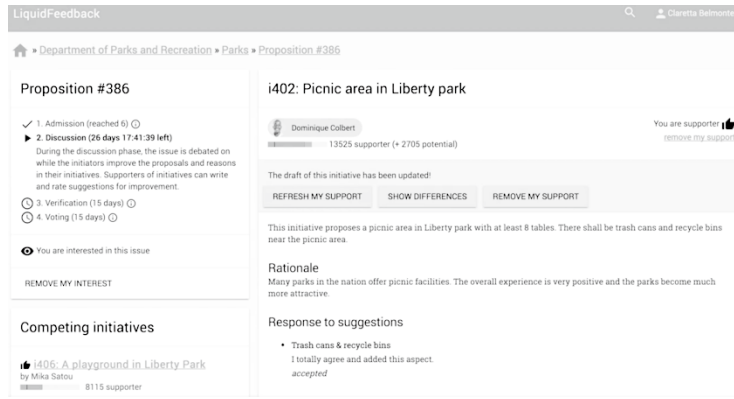


Fig. 4 Liquid Feedback - supporting an initiative

Improvements can be suggested, indicating their importance (they “should” or “must” be adopted – see Fig. 5). Participants decide whether suggestions from other participants should be implemented or not. Based on these suggestions, the platform provides quantified feedback enabling the initiator in their quest to gain more support. An alternative initiative (or a counterproposal) can be started, as seen in Fig. 6.

All the initiatives with significant support become voting options; the system provides a preferential voting system that allows users to vote either yes or no, as well as to indicate preferences (favorites and second choices). Moreover, voting can be delegated to another participating member.

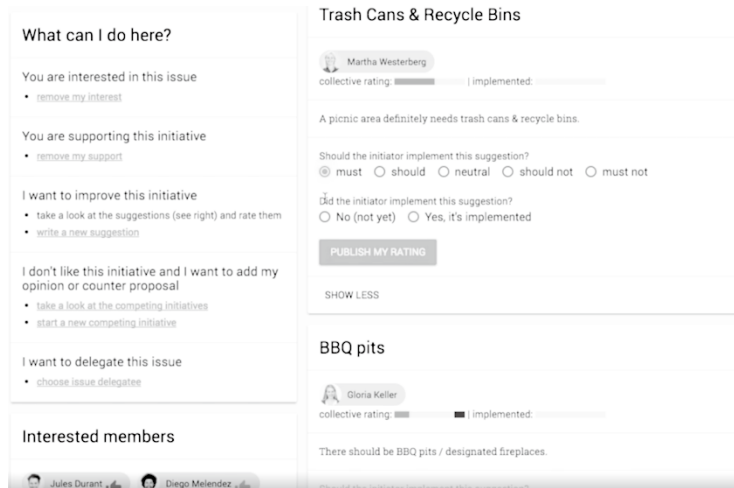


Fig. 5 Liquid Feedback - suggesting improvements

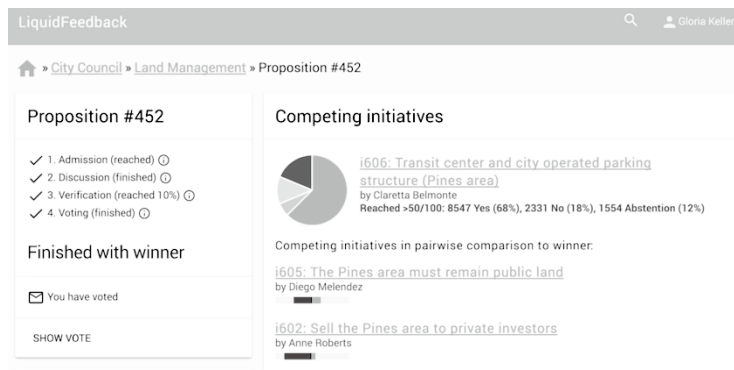


Fig. 6 Liquid Feedback - alternative initiatives

3. Stanford Online Deliberation Platform

URL: <https://stanforddeliberate.org/>

The Stanford Online Deliberation Platform was created as a collaboration between the Stanford’s Center for Deliberative Democracy and Crowdsourced Democracy Team (<https://voxpopuli.stanford.edu/>). In its current format, it is a live, synchronous video discussion platform created for small group discussions (8–15 people), designed to “facilitate a structured and equitable conversation with better opportunity for participants to speak up” [16].

The platform has been used in several languages (including Japanese, Chinese, French) and for national deliberative polling events in Chile, Canada, and the United States. In April 2020, for instance, it was used for a Tokyo city-wide deliberative poll on solar energy options in April 2020 (3 sessions took place, with more than 150 participants in 15 parallel groups).

(Session 1 can be watched at:

<https://www.youtube.com/watch?v=f0gnxGH3OMs>)

The platform is easy to use and, on a first glance (Fig. 7), it looks similar to other video chatting platforms, like Skype or Google Hangouts and Skype. However, there are important differences to these platforms. An automated moderator “bot” ensures equitable participation; it makes sure that participants (by clicking a button) wait in a queue to speak for a given length of time (or briefly interrupt the current speaker).

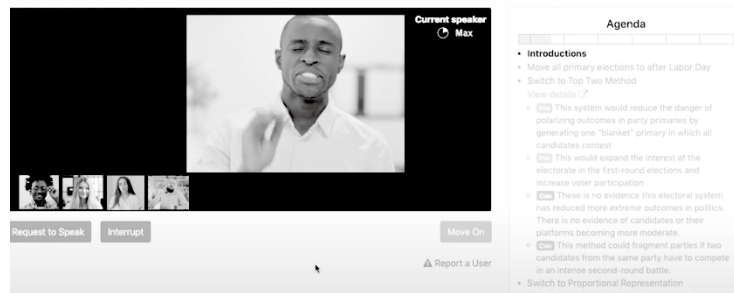


Fig. 7 Stanford Online Deliberation Platform - agenda

An agenda is included and the participants are “nudged” to follow it. The active participant speech is transcribed and, using an external API, content is monitored for offensive language. If such language is detected (or the conversation is stalling) the bot asks the participants to decide whether to block the user or to advance the agenda to the next item, respectively. Collaboration is present: after the conversation, the participants develop and rank questions to be discussed (see Fig. 8).

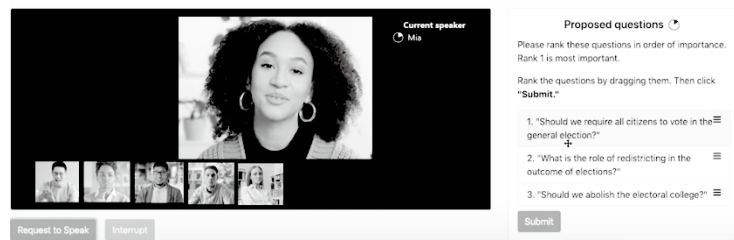


Fig. 8 Stanford Online Deliberation Platform - questions

4. e-thePeople

URL: <https://ethepeople.org/>

e-thePeople was started in 1999 by Michael Weiksner and Scott Reents as a large-scale system aimed at improving civic participation through the use of the internet [4]. It was called a “citizen-driven townhall”, with participants being their own moderators. Its main characteristics as shown in [4], were: deliberative, reflecting consensus, upholding community standards, reflecting diversity, reader-friendly, inclusive. The rating system in place encouraged people to write thoughtful articles, because the other members could limit the exposure of inaccurate or offensive articles.

At the time of writing their article in 2005, the authors in [4] reflected that the limitation of e-thePeople is that the majority of the conversations fail. For instance, in 2004, only 7% of 9000 conversations were successful [4]. Interestingly, the authors also mentioned the need for an internet access, which, at the time (2005), was available for some users only through public libraries and internet cafes. The past years have shown that this limitation was almost entirely removed, considering the almost universal access to internet.

A major change occurred on the platform in May 2017: e-thePeople became a part of League of Women Voters Education Fund (a nonprofit organization offering voter guide technology) and it is used today as an interactive voter guide software [17].

The new platform is made up of Voter Guide and Citizen Guide.

Voter Guide allows organizations to provide their followers with impartial side-by-side candidate comparisons (see Fig. 9). It includes candidate background information and responses to questions on issues proposed and managed by the host organization, as shown in Fig. 10.

The Citizen Guide is a logical extension of Voter Guide: a web service that aggregates media sources (like blogs, YouTube and Twitter feeds) from each elected official. Participants have easy access to all the official’s posts. Both the Voter Guide and the Citizen Guide are hosted in each community by a well-respected local partner, who can regularly pose questions on the most pressing issues of the day. The responses from elected officials are seamlessly

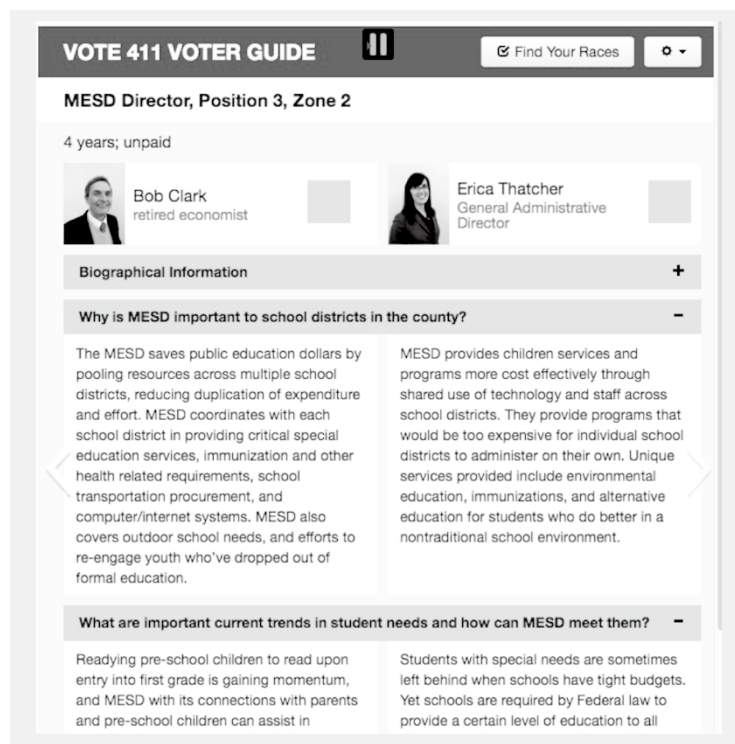


Fig. 9 Voter Guide – candidate comparison

Summary of Measure: The measure would allow use of the levy funds to:

- Improve water quality in local rivers and streams, including the Clackamas, Sandy and Tualatin rivers and Fanno and Johnson creeks, for salmon and other native fish;
- Restore wildlife habitat and remove invasive weeds that choke out native plants that wildlife need for food and shelter;
- Restore wetlands and floodplains to control flooding and provide habitat for birds and amphibians;
- Improve visitor services in Metro's parks, including replacing aging restrooms, picnic shelters and playgrounds; and
- Provide nature education programs to school-aged children and visitors.

Metro also plans to use some of the funding to support community partnership projects that connect people with nature in their neighborhoods.

Yes - For the Measure
 No - Against the Measure

Information

Pros & Cons SUPPORTERS SAY...	Pros & Cons OPPONENTS SAY...
<p>Upfront restoration costs save future expense.</p> <p>The levy will put people to work performing restoration, create demand for local nursery stock and create citizen stewardship programs.</p> <p>Voters gave Metro a clear mandate to implement natural area acquisition and management with bond measures totaling \$363 million.</p> <p>Levy funds would help sustain more than 20</p>	<p>Most of the lands purchased are remote and inaccessible, without signage, parking, rest rooms or trails, and Metro has stated that only 5-15% of the money will be used to make natural areas more accessible. The lands should not have been purchased if voters who paid for them will not be able to use them.</p> <p>This is a large amount of money with very little accountability. Metro has reported that the operations and maintenance cost of 7 large natural areas currently operated</p>

Fig. 10 – Voter Guide

integrated into the Citizen Guide.

5. EngagementHQ

URL: <https://www.bangthetable.com/engagementhq-community-software/>

EngagementHQ, created by Bang the Table [7], is a cloud-based, customizable platform designed for digital community engagement. Its creators call it a space where “individuals of all persuasions can safely connect to decision-makers and have their say at a time and in a place that meets their needs” [7]. EngagementHQ contains eight tools that enable encouraging public awareness, participation and feedback collection: Content Management, Discussions / Forums, Group Management, Ideation, Member Directory, Membership Management, Moderation, Self Service Portal. Various instruments, like surveys, polls, guestbook, forums etc. can be combined to support community engagement.

6. d-Agree

URL: <https://d-agree.com/site/en/>

d-Agree, as described by Ito et al. [18], is a discussion support system based on automated facilitation agent, also called an “Online AI Discussion System”. It is used by government offices, universities and research institutes, in dialogue and discussions for product development and marketing etc. Its ranking function enables ranking participants by number of remarks and discussion points. d-Agree also includes a voting function: various opinions can be discussed before participants vote for or against them. An automated facilitation agent extracts the discussion structure from the texts posted in discussions by people [19]; the content of discussions is classified and visualized in real time.

V. PRESENT AND FUTURE OF ONLINE DELIBERATION SYSTEMS

First of all, it is important to underline that around the year 2000 and for a few years after that, researchers have repeatedly emphasized that as far as deliberation systems go, information and communication technology (ICT) could have a strong impact on their use. They envisaged the increasing use of online deliberation systems. What social scientists (and in many cases, computer scientists, as well) could hardly imagine was the pervasiveness of the internet in the coming years and consequently the huge variety of online platforms at everyone's disposal in only a few years' time. With the explosion of social network use in the past decade, citizens have access to various ways of communicating, discussing and deliberating online with their peers. For this reason, almost any online social platform could be used as a deliberative platform.

With regard to using SNS as such a platform, in 2020, Sakariassen [20] performed a study in Norway aiming to find out how social networks are perceived by the users as potential spaces for public deliberation. They also attempted to find out whether this perception depends on demographic characteristics, such as age, gender, level of education, use of Twitter, and activity in SNS. Their results showed that there are indeed differences in the perception of SNS depending on the demographic characteristics and SNS activity. Even more importantly, their work showed that few people use SNS for public deliberation (they are mostly used for private or social purposes.)

The authors of this paper are of the opinion that social networking services (SNS) could provide an excellent platform for public deliberation. The public needs to be aware of the great role that public deliberation can have for society. If they understand this, they can combine this knowledge with their daily use of SNS. With regard to spatio-temporal choices, the authors also believe that, to reach a larger audience, an asynchronous text-based platform could be the most appropriate choice. This would provide the reduced effort to participate in the discussions and the convenience of accessing it any time.

Moreover, the authors believe that users should remain anonymous in online deliberation; no user should have personal information of other users. This would make it easier for people to express their opinions without fear. However, it would be necessary to register personal data on the platform, with all the security measures in place against data leakage.

Arguably, the most difficult issue concerns moderation of interactions on these platforms. Whereas moderation should be done "in moderation", a facilitator may be needed to nudge the participants if they tend to participate "too little" and possibly allow the deliberations to end prematurely. (Most researchers agree, in fact, that human facilitation is required for a successful deliberation process.)

As Levine et al. state in [4], "When deliberation is well organized, participants *like* it. In fact, they find it deeply satisfying and significant." Along this idea, we express our strong hope that the internet and the digital world in general will provide an appropriate medium for successful deliberative systems; citizens and democracy will have everything to gain from this.

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