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Authors	Liston, Vanessa;Harris, Clodagh;O'Toole, Mark
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UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Abstract

The purpose of this paper is to propose a hybrid model for citizen deliberations that bridges the gap between developments in normative deliberative theory and online participation and deliberation. The model, entitled SOWIT (Social Web for Inclusive and Transparent democracy), is designed for integration to policy making processes. It is currently being designed and developed in consultation with citizens, civil society organisations and Councillors in an Irish local authority. Our approach is rooted in Dryzek and Niemeyer's innovations (2008) in discursive representation and meta-consensus as well as Bächtiger et al.'s (2010) sequential approach to deliberation. SOWIT pioneers a dynamic implementation of meta-consensus framework for structuring and incentivising policy deliberations. In this paper we present the model and explain its normative rationale.

Keywords: deliberative democracy; deliberation; meta-consensus, discursive representation.

Introduction

The past decade has witnessed the development of deliberative and participatory innovations such as citizen assemblies (The British Columbian Citizen Assembly on Electoral Reform, 2004; The G1000 Belgian Citizens' Summit, 2011; Ireland's WeTheCitizens pilot, 2011), deliberative polls (Fishkin, 2009) and mini-publics[i] (Niemeyer, 2004; 2011) that aim to augment democratic preference aggregation processes with public citizen deliberation on policy. Deliberations are seen to enhance the responsiveness of democratic systems, provide a reflexive forum for policy development and more recently, as in the case of environmental governance, contribute perspectives and knowledge for the governance of complex systems (Barnes, Newman & Sullivan, 2007; UNEP, 2009).

However, despite its growing influence, the literature is conflicted on the concept and implications of deliberative democracy. On the one hand, authors challenge deliberative democracy as a normative ideal, suggesting deliberations can produce counter-productive or unintended consequences (Hibbing & Theiss-Morse, 2002); are exclusive by their focus on Habermasian standards of communicative rationality and discourse ethics and; that citizens have limited capacity for effective deliberations (Posner, 2004). Authors also question the possibility of empirically validating its claims and its practical implications for real life problem solving (Mutz, 2008).

On the other hand, a wide literature expounds the benefits of deliberation which has been shown to improve knowledge of political issues (Grönlund, Setala & Herne,

2010), lead to preference change (Fishkin, 2009) and increase a citizen's propensity towards civic engagement (Carpini, Lomax & Jacobs, 2004). Neblo et al. (2010, p.567) demonstrate that willingness among citizens to deliberate is higher than expected, especially among those least likely to participate in traditional partisan politics, because it is seen as offering an alternative to 'politics as usual'.

These conflicting views suggest: a gap in shared understanding on the function of deliberation in political theory; a focus on the concept as procedural justice that inheres in Habermasian discourse ethics; and concern over the implications of the 'unbridgeable gap between actual and ideal deliberation' (Rummens, 2007). While new theories are emerging that address some criticisms of the deliberative project (Dryzek and Niemeyer, 2006; Bachtiger et al, 2010; Dryzek, 2010, Young, 2000) and demonstrate its relevance to democratic representation (Mansbridge, 2003, 2011; Disch, 2011) these theoretical innovations have yet to be drawn together in a practical framework and experimentally tested.

A further challenge to the deliberative project is that developments in normative democratic theory and online participation and deliberation are progressing in isolation. Democracy scholars focused on the web, find that the information and networked capacities of the web can equalise access to information (Anderson & Cornfield, 2003); support inclusive public discussion through the depersonalisation of online identity (Dahlberg, 2001b); enable open exchanges of controversial political ideas (Price, 2009) and; harness public collective intelligence for policy making (Iandoli, Klein, & Zollo, 2009). To this end, a number of tools have been developed (e.g COHERE[1]; Compendium[2]; Deliberatorium[3]) which aim to apply argumentation mapping and technology to incentivise structure and quality in online discussion. Decision-Structured Deliberation (Pingree, 2006) is a theoretical model that addresses issues of scale and organisation that inhere in deliberation while LetsImproveTransportation.org focuses on how power influences the production and use of information in deliberations. Yet, while such innovations address online capacities (e.g. asynchronous communication across space and time) for supporting broad political engagement, there are none to date of which we are aware, that reach across to developments in democratic theory. In our view, reticence in innovating in this field has restricted scope for exploring the transformative potential of the broader project of deliberative democracy in global governance.

Our goal in this paper is to address these gaps by proposing a deliberative format which builds on experimental progress to date; integrates recent developments in democratic theory and; leverages the communicative and information capacity of the internet integral to both local and global governance. Specifically, we propose an extended approach to deliberation rooted in discursive representation (Dryzek & Niemeyer, 2008); meta-consensus (Dryzek & Niemeyer, 2006) and developments in

[1] http://cohere.open.ac.uk
[2] http://www.compendiuminstitute.org
[3] http://franc2.mit.edu/ci/

representation theory (Mansbridge, 2011; Disch, 2011; Saward, 2009). The SOWIT[4] model is being piloted with Fingal County Council, Dublin, Ireland and will establish a collaborative and scalable micro-experimental framework in which the relevance and impact of these developments can be explored in the context of web-supported participation in policy development processes. By proposing this model, we aim to contribute to the literature on innovation design across technical and social science disciplines engaged in the field of public participation and deliberation.

The paper is in five sections. The first section sets out the definition and frameworks on which SOWIT is based. Section 2 presents theoretical developments in the field of deliberation theory that build on criticisms of Habermasian discourse ethics and communicative rationality. Section 3 discusses current trends in the development of online deliberation and considers the implications of digital inclusion. We then present the SOWIT model in Section 4 and outline its relationship to normative democratic theory. In the conclusion we point to areas in which further research is required.

1. Defining the normative framework

The Contested nature of deliberation

Deliberative politics has moved to the forefront of political theory and discourse in recent decades. First articulated as theory of democratic legitimacy, it argues for political decision making to be 'talk centric' rather than vote-centric (Bohman & Rehg, 1997; Chambers, 1999 cited in Steenbergen et al, 2003, p.21). Accordingly, legislative decisions are 'legitimate to the degree that the individuals subject to them (or their representatives) have the right, capacity, or opportunity to participate in deliberation about their content, and as a result grant their reflective assent to the outcome' (Dryzek, 2007, p.242).

Yet, despite agreement on its normative ideals of supporting inclusion, equality and reasonableness (Mansbridge at al., 2010; Steiner, 2010; Held, 2006), there is no commonly agreed definition of deliberation (Steiner, 2010; Mutz, 2008; Niemeyer & Dryzek, 2007). Warning that proliferation of the term can lead to 'concept stretching' (Steiner, 2008) Bächtiger et al. (2010, p.33) distinguish between two main types. Type I is rooted in the Habermasian 'logic of communicative action' (2010, p.33) which aims to arrive at an impartial and rationally motivated consensus through authentic deliberation in which participants justify their assertion and validity claims; consider the common good; and show respect. Type II departs from rationality as the core deliberative ideal by including more 'flexible forms of discourse' and allows alternative forms of communication such as storytelling and rhetoric (2010, p.33). Type II, thus offers a more open understanding of deliberation yet is remains challenged to sufficiently address Thompson's general standard for "a clearer conception of the elements of deliberation,

[4] http://www.sowit.eu

the conflicts among those elements, and the structural relationships in deliberative systems" (Thompson, 2008).

As such, the contested and developing concepts of what deliberation is or can mean, offers the space to innovate with new shared understandings. In this respect and in the following sections, we introduce additional considerations to debates on defining public deliberation, with regard to the potential role of technology and the internet.

Habermas and Communicative Rationality

In most deliberative processes such as citizens juries and consensus conferences, the 'regulative ideals' (Mansbridge et al, 2010, p. 65) of deliberation have been rooted in Habermas's *logic of communicative action'*. Accordingly the ideal speech situation should follow several meta-rules which, though these can differ depending on readings of Habermas, can be summarised generally as follows:

- Deliberation aims towards a rationally motivated consensus.
- Every competent individual is free to participate
- Rules and procedures governing deliberation are open for discussion
- Assertions are justified and validated
- The common good is considered
- Participants are respectful towards groups, demands and counterarguments
- Deliberation is authentic without deception in expressing intentions

This model has spawned numerous empirical studies. The most notable advance in the positive approach has been the Discourse Quality Index, which aims to operationalise and estimate the core features of Habermasian discourse ethics (Steiner et al., 2004; Steenberger et al., 2003). The DQI has been applied by a range of scholars to examine debates within formal debating chambers of established democratic institutions (Neblo, 2006; Spörndli, 2003). Other approaches to empirical analysis of deliberation (Stromer-Galley, 2007) and online political discussion (González-Bailón, Kaltenbrunner & Banchs, 2010; Fishkin, 2009) continue to emerge.

However, a recent normative literature has addressed internal contradictions in the pillars of the Habermasian communicative rationality framework with which these studies are concerned namely; impartialism, equality and conceptions of the common good. Impartialism holds that a political decision is right if it is defensible to 'all significantly affect groups and parties if they had participated as parties in public debate' (Held, 2006, p.239). However the concept is criticised a) for its emphasis on consensus (Gutmann & Thompson, 2004) b) for promoting a single form of reasoning above all others (Tully, 2002; Dahlgren, 2006); c) for assuming that citizens can 'transcend their particularities' when engaging in deliberation (Young, 2000; Fraser, 1992); and d) for impeding social communication, privileging linguistic over non-linguistic modes of knowledge transmission (Pennington, 2003). With regard to equality, Young argues that

the Habermasian standards of discourse ethics can act as a barrier to the full participation of citizens, affecting the equal consideration of participants' opinions and ensuring freedom from distorting influences. She emphasises the importance of inter-group communication, and offers communicative practices, in addition to rational argument, such as greeting, rhetoric and narrative, which she argues 'enrich both a descriptive and normative account of public discussion and deliberation' (2000, p. 57). Finally, Young argues that the concept of deliberation and consensus towards a 'common good' often prevents minority inclusion and may restrict the scope of discourse. Instead she speaks of political co-operation which 'requires a less substantial unity than shared understandings or a common good' (2000, p.110).

2. Deliberation in transition

Such criticisms of the premises and practical application of the theory have led to relaxation of some of the premises of the Habermasian model and to innovations in deliberative democracy theory. Further to Young's normative theoretical developments, scholars have developed new approaches that attempt to address the core issues of inclusion with respect to impartialism, equality and common good. They promote, on the one hand, a sequential approach to deliberation (Bächtiger et al., 2010) and a new framework for how consensus should be understood in highly pluralist societies (Dryzek, 2010; Dryzek and Niemeyer, 2006; Niemeyer, 2004, 2011).

Discursive Representation

Dryzek and Niemeyer's framework for deliberation is founded on the concept of discursive representation which holds that '[D]emocracy can entail the representation of discourses as well as persons or groups' (Dryzek & Niemeyer 2008, p.481). The authors define social discourses as "a set of categories and concepts embodying specific assumptions, judgments, contentions, dispositions, and capabilities" (2008, p.481). As citizens inhabit multiple discourses then it follows that citizens are represented to a greater extent in deliberative processes which are inclusive of the widest range of discourses relevant to a particular issue under consideration.

Social discourses can be identified according to the authors, using Q-methodology, developed by William Stephenson (1978, 1986). It identifies shared beliefs by investigating patterns in natural flows of communication (every day conversation, commentary, news reports, magazine articles, visual, musical and media) in which it claims the natural structure of social discourses exists. Q-method has four key stages. First, a 'concourse of communicability' (Brown, 2006) is created comprising a wide variety of statements within a particular policy area. The concourse is drawn from semi-structured interviews and statements in the media, public discussion boards, written reports etc. towards the goal of maximum diversity in perspectives and policy positions. The large set is condensed to a set of maximum 60 statements. In the second stage

known as the Q-sort, respondents who are selected using purposive sampling, are required to sort these statements on a scale from (for example) 'most agree with' to 'most disagree with' according to a forced quasi-normal distribution. This pattern accepts a lower number of statements at the extremes of the distribution with increasing number of spaces as one moves towards the centre of the grid. Traditionally Q-sorting has been done using paper card sorting however there are many online Q-sorting tools now online.

The third stage deploys factor analysis to find patterns and structure across the Q-sorts. The extracted clusters of commonality are known as 'factors'. The extent to which each individual sort associates strongly or weakly with identified factors is indicated by a specific measure known as a factor loading. The higher a person's loading the more they represent that particular factor, which in Q-methodology represents a 'social discourse'. Each discourse is then interpreted based on typical responses to any statement for that discourse. For example an environmentalist is likely to give a typical score of +4 to a statement that promotes the conservation of biodiversity. In contrast, her colleague in the economic sphere would allocate his +4 position to a statement that promotes economic return on any biodiversity policy measure. By building up 'typical' scores by each discourse (called factor arrays) unique statement sets are identified that taken together account for that discourse. Usually less than six coherent discourses are identified. The final stage requires researchers to interpret the collection of typical responses (factor arrays) and validate the outcomes using semi-structured interviews with respondents that have similar factor loadings.

A growing literature is revisiting Q methodology to identify public discourses related to a policy issue, clarify stakeholder perspectives, resolve policy conflicts and find new solutions to challenging policy problems (Ray, 2011; Cuppen et al., 2010; Niemeyer, 2011). In our view, discursive representation based in this methodology has its advantages over other forms of non-individual representation such as descriptive representative "for the coordinating role that discourses play, especially when formal centres of authority are weak" (Stevenson, 2011); and where there is a lack of a clearly bounded demos (Dryzek, 2010). It also overcomes a challenge of descriptive representation identified by a number of authors in the literature relating to accountability (Urbinati & Warren, 2008; Pitkin, 1967) and the lack of criteria for the selection of appropriate descriptive representatives (Dovi, 2002). Although, discursive representation is not intended to supplant other types of non-individual representation it has the advantage in enabling 'multiple-selves' to be represented across a range of issues and is clear in how 'discursive accountability' should be achieved (Dryzek, 2010).

Meta-consensus

A second pillar of Dryzek and Niemeyer's innovative framework is meta-consensus. According to the authors, meta-consensus is an outcome of authentic deliberation and is defined as agreement on the domain of reasons and considerations pertaining to the issue at hand as well as the nature of the choices to be made (Dryzek and

Niemeyer, 2006). Attending specifically to the goal of inclusion, it does not necessarily refer to agreement on outcomes. Rather meta-consensus is achieved to a greater or lesser extent where there is acceptance in a group of the legitimacy of disputed norms, credibility of disputed beliefs and where the range and structure of preference choice is accepted (Dryzek & Niemeyer, 2006, p.642).

Building on the work of Habermas (1996) and Fraser[ii] (1990), Dryzek (2010) integrates discursive representation and meta-consensus ideals in an innovative scheme for the analysis of deliberative systems defined by:

- A public space, which is inclusive without barriers to communication
- An empowered space, this space hosts deliberation among actors in institutions that produce collective decisions (e.g. legislature, council policy). Institutions do not need to be formally constituted and empowered.
- Transmission: a means by which deliberations in the public space can influence decision making in the empowered space
- Accountability: a process in which empowered space answers to public space
- Meta-deliberation: deliberation about how the system should be organised
- Decisiveness: the extent to which the above five elements determine the content of collective decisions.

This system is interesting because it creates spaces to facilitate greater inclusion as well as addressing issues concerning the relationship of deliberation to the representative system, to which we will return.

Sequential Approach to Deliberation

Also responding to the challenges of inclusion inherent in the Habermasian model, Bächtiger et al. (2010) propose Type II deliberation, a sequential approach in which communication processes and deliberations are separated so that different forms of communication can be integrated at various stages. They propose 'good enough' deliberation where Habermasian standards should be included in at least one sequence. Alternative forms of communication therefore can occur in earlier stages of communicative processes to counteract power inequalities and to further 'deliberative capacity building' (Dryzek, 2009). As such this approach is grounded in the empirical realities of situated deliberation and aligns with Habermas's later theory in Between Facts and Norms (1996) in which deliberative critieria are weakened; the ´sincerity criterion' is relaxed; deliberation does not demand consensus but can include bargains and compromises; and a broader range of communication types are acceptable.

From theory to practice

These theoretical developments shared common ground in the aims to overcome limitations of Habermasian standards. Our question is can they be drawn together in a way that leverages the communication and knowledge-sharing capacities of the internet to advance the normative objectives of deliberation? How would the limitations of such a model be addressed?

Our proposal is that a hybrid on-offline implementation of Dryzek's deliberative system (2010) opens new possibilities for feasibly integrating citizen deliberations on an ongoing basis into the democratic political decision making system. The expanded nature of Dryzek's deliberative system over time, and its focus on a public space, suggests an opportunity for technology to assist in enabling open and free forms of communication, and to capture these for discursive inclusion in deliberations. A sequential approach (Bächtiger et al., 2010) also facilitates internal inclusion (Young, 2000) and deliberative capacity where communication is implemented through layered and sequenced stages of collaboration, deliberation and policy making respectively. However any consideration of enhancing an extended deliberative framework using technology is immediately presented with the challenge of inclusion, particularly with respect to the digital divide. This question deserves particular attention given its central role in defining the gap between online and offline scholarship and practice.

3 Inclusion and Technology: a Paradox?

In recent years digital democratic innovations such as participatory budgeting, city planning, deliberative opinion polls, online political discussion networks and online town hall meetings have emerged (Smith 2009; Fishkin, 2009). Technology has been used to give voice to a silent minority on sensitive issues e.g. the Womenspeak project in the UK (Smith, 2009). Fishkin's online deliberative polls have used voice based technology and offered computers/free web TV service to overcome the digital divide (Smith, 2009). Recent examples of global deliberations include the WWViews process which used technology to connect citizens deliberating in 39 countries worldwide.

A wide literature has grown dedicated to the potential of technology and the internet for increasing citizens' political engagement. Scholars in this field point to an upward trend in citizens using the internet to participate in political processes (Chadwick, 2006; Bimber, 2003) and analyse online political discussion and the extent to which they meet deliberative standards (Gonzalez-Bailon, Kaltenbrunner & Banchs, 2010, Fishkin, 2009). Further studies show that online deliberation is as effective as face-to-face deliberation in increasing participants' issue knowledge, political efficacy, and willingness to participate in politics (Min, 2007; Zuckermann, 2005; Grönlund, Strandberg & Himmelroos, 2009).

Yet, while the internet provides a unique set of opportunities, scholars point to its limitations in enabling inclusive political engagement. Concerns have been expressed that the use of the internet for political purposes can reinforce existing inequalities and the

dominance of the technologically elite (Albrecht, 2006; Dahlberg 2001a; Dahlberg 2001b; Zhang 2010) and result in polarization (Jaeger, 2005). Bua refers to the gendered dimension of participation, noting that 'flooders' tend to be men while women are more likely to lurk and not participate (2009). These concerns relate to difference in online behavior based on social and gender characteristics but which also are relevant to the wider issue of the digital divide. In sum, inclusiveness and the distribution of access to technology are the Achilles heels of efforts to use the internet for support deeper democracy.

These concerns lead to a paradox. On the one hand, current discrete deliberative events such as mini-publics are situated apart from the ongoing social practices of citizens thus excluding the regular citizen and the diversity of public discourse that inheres in everyday conversation. On the other hand where technology can assist in bridging this gap it also inheres exclusion for those who are on the 'wrong' side of the digital divide. How can these contrasting exclusions be reconciled?

The question is important because the type of information required for policy development is becoming more complex and increasingly depends on new knowledge types created through the capture, distribution, and use of data through digital networks (see Margetts, 2009). Being included in the knowledge creation and use process is critical for supporting democratic equality. But as Warschauer (2003) notes, achieving digitial inclusion is far more than increasing the availability of technology and courses. Rather, ICT use is a social practice and the 'ability to access, adapt, and create knowledge using information and communication technology is critical to social inclusion' (p.9). In other words being supported to use technology can overcome the access issues that contribute to social and economic stratification or inclusion.

We thus promote a dual approach to inclusion between innovator and governments. The innovator's distinct role must be to ensure that the design is collaborative, intuitive, and crucially, that it is relevant to citizens' needs and capacities as expressed through consultations. Where citizens perceive potential social value in a digital innovation the role of local government is the "effective integration of technology into communities, institutions, and societies" in a way that aligns with their technology practices (Warschauer, 2003 p.9). Mobile use is argued to be a way of overcoming some of the challenges that inhere in the skills required to participate in what Brown & Czerniewicz (2010) term 'digital democracy'.

The recent example of the public budgeting process in Belo Horizonte, a city of 2,400,000 citizens in the state of Rio Grande do Sul, Brazil highlights our claim with respect to inclusion. In this example, $11 was to be distributed via a fully web-based participatory budgeting process (ePB). Supported by a major outreach initiative to the favelas the initiative was highly successful. Results show that, over a 42 day period, more than 10% of voters in that area participated, with higher rates in the poorest neighborhoods. These results compare with offline meetings which had a participation

rate of 1.2% for the distribution of $43m. Reasons for the difference include; a decrease in cost in online participation and; a direct impact of citizens on decision making in the ePB method (Peixoto, 2009). In contrast, for the traditional public budgeting process final budget decisions were made by delegates. In evaluating the quality of deliberation Peixoto also states,

> Evidence suggests that the online forum was, overall, an environment of rational, argumentative and reflective debates where active participants would persuade and be persuaded of the importance of one public work over another (2009, p.5)

Recent developments in UK e-government also show a progressive and active response to the inclusion issue. 'Digital by Default' is a term that summarizes the UK government's strategy for digital innovation while ensuring inclusion. It is defined as providing "digital services that are so straightforward and convenient that all those who can use them will choose to do so, whilst those who can't are not excluded" (Kemp, 2012). The Community 2.0 government initiative in Wales is also focused on supporting people to learn how to get online and breaking down barriers to engagement with digital technologies (Communities 2.0, 2012). These approaches attend to Washauer's claim that access to ICT for the promotion of social inclusion "must engage a range of resources, all developed and promoted with an eye toward enhancing the social, economic, and political power of the targeted clients and communities." (2003, p.47)

Accordingly, SOWIT will partner with governments in an outreach programme and ensure that its design is easy to use, available through popular technology, accessible in public places, and available in off-line formats where possible. We now turn to explain the model and the rationale for its components that combine to form an experimental framework.

4. SOWIT: A proposal

As SOWIT is being piloted at the local government level, the explanation of SOWIT is situated in this context. However, as it is intended to be an implementation of Dryzek's proposed deliberative system, we revert to his lucid explanations on how discursive representation is scalable to the level of global governance (2010).

SOWIT includes the following sequential stages which are linked with feedback loops:

1. A collaboration sphere for drawing in public knowledge and discussion; where discourses are articulated and; a factual and experiential learning system evolves
2. A deliberation sphere where discourse speakers deliberate face-to-face together with elected representatives and Council officials towards the goal of a final inclusive policy proposal. Deliberations are technology assisted, providing feedback on progress and capturing movement across positions.
3. Links into the empowered space which is the local Council (or other democratic institution) where the negotiated policy positions in the deliberation sphere are presented to Council. Feedback between these levels provides the dynamic for system learning and the goal of a final policy that resonates with discourses in the public sphere.

There are four defining features that when integrated, distinguish SOWIT from other deliberative formats such as used in mini-publics, citizens' assemblies and deliberative polls: a) Deliberations aim toward systemic impact though the inclusion of political representatives and officials; b) Subjectivity in public opinion is emphasised through the idea of discursive representation (Dryzek and Niemeyer, 2008) uncovered using Q-methodology c) Deliberations are extended in accordance with Dryzek's model to a public space where all types of communication are supported in expressing opinions on an issue and d) Accountability and transparency is supported by ongoing feedback and communication cycles. We begin by explaining each stage of the process, outlined in Figure 1.

4.1 Stage 1: Collaboration

The collaboration sphere is an online federated social network that enables open communication and knowledge sharing by citizens, elected representatives and officials. It has three objectives: First; to enable broad inclusion of citizens in the policy development process, by enabling the creation of discursive space where discourses on a policy issue are uncovered; Second, to enable cross-group social learning by providing a view of other discourses and citizen sentiment at any point in time and; Third, to develop a technical, experiential and context learning environment, which develops over time, and which informs the policy development process.

The core innovation of this space, unlike other political discussion fora, is its focus on identifying social discourses on policy issues from a broad stream of natural opinion using Q-methodology for citizen engagement and debate. The aim of this space is therefore to capture, and visualise for citizens, the full range of views on an issue in the form of natural opinion. This approach of actively capturing and presenting diverse views to citizens is new and responds to Jaeger (2005), Hindman (2009) and Sustein´s concerns on the risks associated with people communicating on the internet in enclaves with only like-minded people. Sustein argues that exposure to both diversity of views and common experiences are essential for a well-functioning democracy (2009, 5-6).

There are three main ways views in which can be captured. First, any citizen can visit the online collaboration portal to discuss the issue with others and then submit their view directly in the form of text, video or image. They can also contribute via SMS, or telephone. Second, statements are gathered from interviews with those stakeholders likely to hold different perspectives on the issue. Finally, opinion can be harvested from social media flows, online newspapers, blogs and radio shows. These multiple sources enable the space to be as inclusive as possible in order to present the full spectrum of opinion on a particular policy issue for knowledge sharing and debate. This stream of natural opinion is reduced by removing overlap and repetition to a set comprising 40/50 statements. All opinions and the reduction method are fully open for public view and comment.

To identify underlying social discourses, a purposive sample of diverse stakeholders and a random sample of citizens are invited to attend a public consultation to consider and rank this set of statements (Q-sort) in the inverted Q-grid using a computer tablet in response to a specific instruction (e.g. ‘Most agree’ to ‘Most disagree’). The purposive sample and real life consultation process is important to maximize the likely range of discourses that can emerge on the policy issue and mitigate self-selection effects respectively. It is also important to bridge the online-offline divide and reach deliberative processes into the wider public sphere (Chambers, 2009). It is worth noting that according to Q-methodology only a small number of diverse citizens are required to identify the discourses in contrast to the requirements of polling. Additional sorts do not significantly change the patterns identified. In this respect, the process is highly scalable as citizens can also participate by conducting the Q-sort online without resulting in any bias within the discourse structure. The sort patterns of responses are factor analysed and presented to the participants to confirm their validity (see Brown 1971; Stephenson, 1986). Finally, the discourses are published to the collaboration sphere for review and comment. Integration with policy processes is achieved by allocating time in Council meetings to discuss the discourses and citizens knowledge shared.

Once the range of discourses is indentified from the Q-sort, a key political issue is the identification of potential ‘speakers’ for those discourses in the deliberation sphere. One criterion proposed by Dryzek and Niemeyer is that discourse speakers should be those that have the strongest association with the discourse ‘factor’ (high factor loading).

They also note that an individual can load on multiple discourses which mitigates selection for extremism (2008). We support this approach but note that although a person is strongly aligned with a particular indentified discourse it does not necessarily follow that he/she will make an effective discourse speaker. In other words they may not, on average, reflect the socio-structural aspects that can influence the pattern of discourse transformation during deliberation. Davies, Blackstock and Rauschmayer state that a focus on discourse may obscure issues of power relations and social justice with respect to participants' social structural status (2005, p.613). Hence, discursive representation must ensure diversity in socio-economic characteristics to avoid elite gate-keeping of the deliberative process.

How are these criteria met? Discourse speakers are automatically selected based on criteria pre-defined by the sampled participants in response to a series of survey questions. For examples, after completing a Q-sort each participant is asked to indicate from a list of options, their preferences on the ideal characteristics of a speaker to represent their opinion in deliberations. Criteria for speakers include; background characteristics (similar or different to sorter) and whether they have very strong or strong/moderate views on the issue. The assumption is that moderate speakers are more likely to accommodate other views and to achieve greater movement in deliberations. Participants are also asked if they are willing to act as a speaker.

Once the Q-sort process is complete, the SOWIT system matches participants to the pre-selected criteria for speakers. This process is transparent and open to inspection and validation by citizens. Finally, the collaboration sphere is also where meta-deliberation occurs, that is where participants and representatives can discuss the rules by which deliberation takes place, according to Dryzek's framework (2010).

<<Insert figure 1 here>>

Stage 2: Deliberation

The deliberation sphere is initiated by any government or public organisation when a controversial policy is being negotiated. It represents an informal chamber of discourse as conceptualised by Dryzek (2010). It represents the point at which: deliberation becomes *integrative* (Bächtiger et al. 2010; Thompson, 2008); rational discourse can take place between discourse speakers and representatives according to the model of 'good enough' deliberation (Bächtiger et al., 2010); and the particular (articulated in the collaboration sphere) is formally connected to the general (deliberation sphere).

Discourse speakers as identified above are invited to attend a public deliberation attended also by Council officials and elected members meet for face-to-face deliberations the content of which is broadcast online. Where the issue is highly contentious the design of the deliberative process is structured according to Dryzek and

Niemeyer's (2006) concept of meta-consensus. There are two main sessions, one focusing on values associated with the issue where participants explore the extent they share common values on the issue. The second session focuses on participants' beliefs (in terms of knowledge and impact) as well as preferences. As such it aims towards a 'problem-solving public', seeking creative outcomes (Niemeyer and Dryzek, 2007), and the achievement of political co-operation as demanded by Young (2000).

Progress during the deliberation meeting is visualised by enabling participants to create a live opinion stream during the meeting. All participants are provided with computer tablets with which they can submit a maximum of three statements summarising their position during each session. By directly creating a new Q-sample from the deliberation content, and not relying solely on the ranking of preferences which are set at the outset of deliberations, the process opens creative space for exploring new policy options in the context of co-operative problem solving. It also supports accountability to the collaboration sphere in the preference transformation process.

At a rest period participants use their computer tablets to Q-sort these statements. This process can be repeated two or more times. Each set of results are published to the public screen where individuals can see their location across discourses. Opinion change and movement across discourses are visualised. Such information illustrates the positions of each participant along each dimensions of meta-consensus and how these change during the course of deliberation. Using this method, participants can actively incorporate knowledge on evolving perspectives as a factor in their deliberations. Deliberation thus becomes more reflexive, focused on self-inquiry and adaptation. Once there is no significant change in the progress of deliberations, the results are published to the online collaboration sphere[iii] for public feedback.

It is important to note that speakers act as 'gyroscopic' representatives (Mansbridge, 2011) and not as mandate representatives of a particular discourse. In Mansbridge's conception gyroscopic representatives are not bound to a mandate but "look within, as a basis for action, to conceptions of interest, 'common sense,' and principles derived in part from the representative's own background" (2003, p.515). They are thus free to change their position in the pursuit of meta-consensus. However discursive accountability holds that where discourses transform during the course of deliberations, these shifts should be explicable to discourse holders in terms relevant to that discourse. This accountability is facilitated by linking deliberation to a feedback loop where deliberation induced transformation is open for discussion in the collaboration sphere.

<<Insert figure 2 here >>

Stage 3: Policy Development

The council or 'empowered space' (Dryzek, 2010) considers the proposals of the deliberation sphere in policy discussions. Council is incentivised to explicitly

acknowledge the output of deliberations through a published score that estimates the extent to which final policy resonates with public opinion defined by Dryzek (2010) as "the provisional outcome of the contestation of discourses in the public sphere as transmitted to the state (or transnational authority)". This score, estimated by content analysis, provides a measure of the responsiveness of the Council to the deliberations. This approach responds to Smith's claim that deliberative innovations such as mini-publics can be weak 'in realising popular control and publicity' as it not always clear if they have had any impact on the decision-making process (2009, p.110). Council provides feedback to citizens on how their input was used and reasons for any significant departures from the main output of the deliberation sphere. This innovative process responds to Pitkin's call for discrepancies to be communicated to citizens in ways they can accept (1967). As such, the legislative chamber becomes an extension of the broader deliberative system as suggested by Dryzek (2010).

The web-supported cycles raises the question of the function of the representative through the participation and deliberation stages of SOWIT. As Munton (2003, p.109) states, 'public involvement challenges the established roles and authority of elected representatives.' He suggests that the participation possibilities offered by Web 2.0, including the open data movement, may lead to the representative being marginalised. Indeed, the increasing distrust of citizens of the centralised and indirect social processes, and changes in communicative patterns as a result of computer-mediated processes are putting pressure on representative systems to adapt (Coleman and Blumler, 2009). Building on Mansbridge and Disch's conceptual innovations in representation theory, the SOWIT model builds on the concept of *anticipatory representation* function for elected representatives (Mansbridge, 2003). This conceptual framework evolves the conceptual basis of the 'promissory' model by which representatives are mandated to deliver on past electoral promises. Specifically, Mansbridge proposes that representation should focus on future elections thereby *anticipating* citizen preferences. To this end, the representative must engage in regular communication with constituents in order to establish likely future preferences and interests, benefitting thus from deliberative processes in which citizen knowledge and discourses are made explicit and transformed.

As an experimental model, SOWIT aims to address the three pillars outlined by Coleman and Blumler (2009) for greater connection between citizens and democracy, namely: Institutions must be sensitised to the common vernacular in how people experience and express their fears and desires; there must be constant communication between the governing and the governed and; there must be an impact resulting from this communication. Within an integrated inclusion driven framework, SOWIT differs from other deliberative experiments or mini-publics such as Citizens' Assemblies, Citizen Summits and Deliberative Opinion Polls. First, as a local and ongoing process with a defined feedback loop/transfer mechanism the model can be used for a range of policy issues rather than specific institutional matters alone (e.g amending the electoral system).

Second, unlike the other deliberative experiments mentioned, SOWIT employs discourse representation as opposed to stratified random sampling which is argued to be problematic for legitimacy and inclusion (Davies, Blackstock and Rauschmayer, 2005). Finally, the SOWIT framework is broad enough that it can integrate emerging innovations such as Decision Structure Deliberation (DSD) to enhance communication in the collaboration sphere and implement measures that focus on mitigating the 'politicizing of information' in deliberation processes (Ramsey and Wilson, 2009, p. 266).

A comparison between SOWIT, face-to-face and online models are summarised in Table 1).

<<Insert figure 3 here >>

<<Insert table 1 here >>

5. Conclusion

Our main contribution in this paper has been to propose an experimental deliberative format that aims to bridge the gap between normative deliberation theory and the information and communication capacities of the web. Its design builds on criticisms and innovations in the deliberative democracy literature, while recognising that the internet offers new capacities not considered within standard face-to-face deliberation formats. As a theoretical and practical endeavour SOWIT is both relevant and timely given the rate of development in online civic engagement platforms. Our aim is to support these innovations by contributing to the inter-disciplinary dialogue on how online platforms can be best designed from a normative perspective to meet our evolving democratic aspirations.

Further research is required on a number of critical areas particularly, the effects of power, politics and political culture (Cornwall, 2008) on SOWIT's participation and deliberation processes. This area has only been explored to a limited extent within the experimental deliberative literature and suggests multiple paths of inquiry including strategic deliberative behaviour, institutional incentives (Stavasage, 2007), and effects on public sphere vibrancy and deliberative quality. Empirical research is also required on current indicators and frameworks for assessing such deliberative quality with respect to inclusion, process capture and/or manipulation. Finally, those factors affecting the adoption of such an innovation (Susanto & Goodwin, 2010) among citizens, representatives and local authorities, as well as the management of citizens' expectations is an area that is a pre-requisite for both successful development and implementation.

To conclude, citizen deliberations that harness the information and communication capacities of the web may be effective in enabling new and inclusive

ways for citizens to participate and innovate in policy development processes for improved democracy and local governance. The theoretical framework we put forward aims to both relax current restrictive assumptions and enable innovative experimental approaches to deliberation. The SOWIT experiment inquires into these possibilities through stakeholder-led grassroots collaboration that aims not only to create opportunities for citizens to influence policy but to co-create the transformative processes required for its development.

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Endnotes

[i] The term mini-public come from Dahl's mini populous (Goodin and Dryzek 2006). Designed to be 'groups small enough to be genuinely deliberative and representative enough to be genuinely democratic' (Goodin and Dryzek, 2006 p. 220), they tend to be specially commissioned fora (e.g. citizens' juries) where participants are randomly selected, deliberation is facilitated, expert evidence is provided and the recommendations are presented in a final report (Pateman 2012).They are not uniform but they do share an emphasis on small group deliberation and are composed of ordinary citizens (Goodin and Dryzek 2006).

[ii] Fraser (1990) critiques Habermas' approach to the public sphere which she considers to be exclusive on the basis of class and gender and argues for strong and weak publics as well as hybrid forms to integrate publics in the decision-making process Reformulating his theory in 'Between Facts and Norms' (1996) Habermas develops a less pessimistic and more positive role for the public sphere, placing it at the beginning of a processual model of the political system and makes it part of his theory of deliberative democracy. Drawing from Fraser he refers to weak and strong publics where the weak publics feed into the strong publics. These are the institutional settings for the deliberation of deliberative democracy.

[iii] This meets the requirement of Bächtiger et al. for an interactive/ iterative process, which they claim can support the truth requirement for deliberation.