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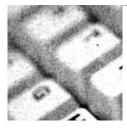Additional services and information for *New Media & Society* can be found at:

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ARTICLE

Democracy, deliberation and design: the case of online discussion forums

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Abstract

Within democratic theory, the deliberative variant has assumed pre-eminence. It represents for many the ideal of democracy, and in pursuit of this ideal, online discussion forums have been proposed as solutions to the practical limits to mass deliberation. Critics have pointed to evidence which suggests that online discussion has tended to undermine deliberation. This article argues that this claim, which generates a stand-off between the two camps, misses a key issue: the role played by design in facilitating or thwarting deliberation. It argues that political choices are made both about the format and operation of the online discussion, and that this affects the possibility of deliberation. Evidence for the impact of design (and the choices behind it) is drawn from analysis of European Union and UK discussion forums. This evidence suggests that we should view deliberation as dependent on design and choice, rather than a predetermined product of the technology.

Key words

deliberative democracy • e–democracy • online discussion
• theories of technology • website design

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INTRODUCTION

In recent years the theory of deliberative democracy has been resurgent. Dryzek (2002) argues that it is *the* dominant approach in democratic theory. Sartori (1987) believes that deliberation is essential to effective democracy, but that its absence is notable in most democratic societies. The problem is that while deliberation is assigned a prominent place within democratic theory, it is also held to be impractical because of the difficulty of holding large-scale political discussions (Coleman and Gotze, 2001; Goodin, 2003; Peters, 1999). The internet has been posited as a solution to this problem: it is seen as a tool by which the theory of deliberative democracy can be made practical through asynchronous[1] discussion forums (Coleman and Gotze, 2001; Hauben and Hauben, 1997). However, others (Bellamy and Raab, 1999; Davis and Owen, 1998; McGrath, 1996; Sunstein, 2001) argue that the internet will only make the situation worse, leading to a balkanization or polarization of politics.

Discussion boards can be conceived as democratic meeting places, a kind of virtual agora. This has resulted in a number of different ideas or 'e-conceptualizations', such as virtual Habermasian public spheres (Keane, 2001; Sassi, 2001; Tsagarousianou, 1998), electronic Athens (Mulgan and Adonis, 1997) and electronic commons (Abramson et al., 1988; Blumler and Coleman, 2001; Levine, 2001).

This article contends that both sides in this debate are creating a false dichotomy. It is no more plausible to conclude that online discussion forums destroy deliberation than it is to suggest that they make it possible. Neither is a matter of principle or of fact; rather, this article contends that it is largely a matter of design, conjoined to a debate about political values and goals. The two sides to the argument tend to treat the information technology as given and determinant. This is not the case; websites (and, indeed, the architecture of the internet itself; see Lessig, 1999) are the product of technical, political and other choices, and of the contingencies of context. The form and character of websites, and the political processes that they make possible, cannot be assumed. This is where design comes into the equation. We argue that how discussion is organized within the medium of communication helps to determine whether or not the result will be deliberation or cacophony. Drawing on empirical research into the construction of primarily government-run online discussion forums, this article points towards the way in which design is implicated in democratic processes. Put more strongly: the democratic possibilities opened up (or closed off) by websites are not a product of the technology as such, but of the ways in which it is constructed, by the way it is designed.

DELIBERATIVE DEMOCRACY

Deliberative democracy refers to a specific form of participation: informed discussion between individuals about issues which concern them, leading to some form of consensus and collective decision. To come to a collective

decision, minds must be changed as a consequence of deliberation: this is the key difference between deliberative theories of democracy and those in the representative or direct vein. Preferences are not just aggregated but revised in the light of a preceding debate. The term 'deliberative democracy' can be divided into its two constituent parts: the deliberative element and the democratic element. The deliberative element refers to a belief that decision-making is best conducted by argumentation proffered by and to participants committed to the values of rationality and impartiality (Elster, 1998). The democratic element refers to the notion that all who will be affected by a decision should have the opportunity to discuss the matter, or at least to have a representative to discuss the matter on their behalf.

The essence of deliberative democracy lies in the idea that citizens engage not only in registering preferences, but also in talk about those preferences. The American philosopher John Dewey said that democracy began in conversation. Similarly, Hill and Hughes (1998: 62) suggested that 'discourse is at the heart of democracy'. Clarke (1996) has argued that one of the cultural prerequisites for democracy is forms of interaction between citizens, which is the discursive core of a 'public'. Barber has emphasized its legitimizing function, stating that: 'There can be no strong democratic legitimacy without ongoing talk' (2003: 174). Online discussion forums are seen as a technology that makes this talk and these conversations a real possibility. They seem (to some at least) to create the conditions for vast deliberative chambers. The assumption is that they provide the kind of forum or space which makes possible the forms of conversation or discourse required by deliberative democracy.

DELIBERATIVE DEMOCRACY AND THE INTERNET

It is suggested that the technical characteristics of the internet, combined with asynchronous discussion board technology, have led to the creation of a 'virtual world' that establishes the conditions for deliberative democracy. The asynchronous (or synchronous, in the case of technologies such as Internet Relay Chat) structuring of the discussions is thought to facilitate the large-scale discussion considered unrealistic by Goodin (2003). Hauben and Hauben, for example, believe that this is an 'exciting time because the democratic ideas of some great political thinkers are becoming practical' (1997: 319) – something which was not previously possible. Similarly, Tsagarousianou argues that 'new technologies clearly have the potential to sustain such spaces [public spheres] as they enable both deliberation (citizen to citizen communication) and 'hearing' (citizen to authority communication)' (1999: 195–6). Corrado and Firestone believe that online discussion, and Usenet in particular, will create a 'conversational democracy' in which 'citizens and political leaders interact in new and exciting ways' (1996: 17).[2] Similarly, Rheingold argues that if the discussion board (or 'Bulletin Board System', as he calls it) 'isn't a democratizing technology,

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there is no such thing' (1993: 131). This is because online discussion groups allow citizens to 'do their daily jobs and still participate within their daily schedules in discussions that interest them' (Hauben and Hauben, 1997: 243). All of these claims reinforce Dyson's famous soundbite that the 'Net will foster activity rather than passivity' (1997: 36) and that it will promote the development of more democratic forms of government where citizens will be able to develop a more meaningful voice in their government (Norris and Jones, 1998).

Against these arguments are ranged those of writers such as Bellamy and Raab, who argue that 'there is a real danger that ICTs will not only reflect but amplify the fragmentation of the public sphere, balkanizing politics into multifarious and shifting constituencies' (1999: 169). Far from creating inclusive deliberation, internet discussions may be 'as narrow or perhaps even narrower than those across the backyard fence', with differing views gravitating 'to their own discussion groups' (Davis and Owen, 1998: 124; Sunstein, 2001). Barber has argued that people are 'mostly after porn and pulp while chatroom visitors, when not also pursuing sex, seem to be asleep', and that even on serious sites, discussions are 'polarized debates around the conventional talk radio extremes with little in the way of real facilitation, discussion, or persuasion' (1998: 269). Barber has since gone on to characterize online discussion as: 'People talking without listening, confirming rather than problematizing dogmas, convicting rather than convincing adversaries, passing along responsibility to others for everything that has gone wrong in their lives' (1999: 40).

Such critical arguments have tended to be supported by the empirical analysis of online discussion. For example, Davis' analysis of Usenet discussion forums found high levels of flaming, in which people posted aggressive or derogatory messages. Views were reinforced rather than exchanged. This state of affairs was compounded by the unrepresentativeness of the participants. Davis concluded that: 'the promise of Usenet is a hollow one. It turns out that even the Internet's most democratic corner is not as democratic as it appears' (1999: 167). In a similar vein, Wilhelm argues that: 'If a democratic discussion is to be defined at least in part by the quality of the conversation, then the newsgroups [analysed in his study] are not very deliberative' (2000: 98). Wilhelm's (2000) results showed that only 15.5 percent of messages were replies; 27.9 percent sought information from others; and 67.8 percent validated their arguments. Wilhelm concludes from these results that there is little evidence of deliberation; instead, his findings

> support the conception of online political forums as facilitating self–expression and monologue, without in large measure the 'listening', responsiveness, and dialogue that would promote communicative action, such as prioritizing issues, negotiating differences, reaching agreement, and plotting a course of action to influence the political agenda. (2000: 98)[3]

DESIGN AND DISCUSSION

It seems, therefore, that detailed research into the use of online discussion forums confirms the views of the sceptics that their democratizing potential is very limited. Despite the hopes of those who welcome online forums, the research and the arguments that underpin it cast doubts on their capacity to generate deliberative discussion. However, such a conclusion does not automatically follow: online discussion forums can be designed differently – in ways that facilitate deliberation. As Morison and Newman observe:

> It seems that the interface affects the way people write and deliberate online, from the immediacy of chat systems to the stilted but carefully considered essays submitted to structured website bulletin boards. (2001: 185)

This observation is supported by empirical investigations by Linaa Jensen (2003) and Wright (2005b).

As noted previously, to date, empirical analyses of online political discussion have focused generally on a particular form of (typically unmoderated)[4] discussion board known as Usenet, not linked formally to government and with a vast arrangement of often highly politicized and polarized threads. The way in which the debates are framed (for example, alt.politics.clinton), through the design of the interface, may generate the polarization discovered by Wilhelm and Davis. Moreover, as Stromer-Galley (2003) has argued, Wilhelm analysed Usenet groups with atypically homogenous participants such as talk.libertarian. Thus, Wilhelm's conclusion that 'Emerging technologies . . . undermine severely the rhythm of democratic discourse' (2000: 101), which mirrored van Dijk's claim that the technical capacity of the software does 'not easily lead to consensus and conclusions' (van Dijk, 1999: 91), might merely reflect the character of the participants as framed and organized by the software, rather than any general claim about the capacity of online forums to generate deliberation. In light of this, Wilhelm and Davis may have been too pessimistic about the chances for internet-based discussion and we must take great care in generalizing their findings into a broader commentary on the nature of online political discussion.

This is a familiar conclusion, one that is shared by those who argue that the formal structure of democracies affect the behaviour that they contain. There is a longstanding view that the design of parliament buildings, council chambers and the like, not to mention the electoral system which fills those spaces with representatives, affects the quality of the discussion and the nature of the debate (Olson, 1998).[5] For example, the physical shape of the UK Houses of Parliament, with the government on one side and the opposition directly opposite, is thought to create a hostile and adversarial environment, while circular chambers lead to open debate and less vitriol. In the same way, it might be contended that the 'shape' of discussion boards affects significantly the kinds of deliberation which takes place within them.

Computer designers have already begun to develop actively systems of what Sack (2005, following Jones and Rafaeli, 2000) calls 'discourse architecture': 'the practice of designing networked environments to support conversation, discussion and exchange among people . . . that is, the means to shape the conversation that takes place within a given system' (2005: 243). However, Sack largely limits his theoretical argument to distinctions between the kinds of communication (one-to-many, many-to-many) facilitated by different technologies (Usenet again being the primary empirical focus), rather than how they can affect the nature of pluralized, many-to-many communication. As he notes:

> Once the technical infrastructure has been put into place, the work that remains is not so well defined: How can online, deliberative discussions be engendered and facilitated? (2005: 267)

The importance of design has been recognized more widely in the online community literature for, as Preece puts it: 'designing for usability is not enough; we need to understand how technology can support social interaction and design for sociability' (2001: 349).[6] This is because 'interaction does not just happen, but must be intentionally designed' (Krejins et al, 2003: 340) to achieve the desired kind of interaction – be it social, instructional or, in our case, deliberative (Jones and Rafaeli, 2000; Liaw and Huang, 2000; Northrup, 2001). To do this, 'we must first gain an understanding of the link between technology and discourse structure . . . because it is technology that provides the architecture for virtual public discourse, whatever its use or associated social structure' (Jones and Rafaeli, 2000: 218). The suggestion being put forward by these writers is that the form of the technology, rather than the fact of it, is responsible for the observable effects upon dialogue.

There are literally thousands of different types of online discussion forums – from bulletin boards, which are designed to be similar to traditional community centre information boards on which replies are not encouraged, right through to CoWebs and Wikis, on which users actively create the environment as they add new features. Inbetween, there are all sorts of interesting acronyms, from MUD (multi-user domain) to MOO (MUD object oriented), each of which have different functionalities and purposes that can appeal (and can be deliberately designed to appeal) to different conceptions of democracy. It is therefore significant that government-run discussion forums at the local and national levels in the UK, and also at the European level, typically fall within one of three designs:

1. Policy forums – input is made directly to the policymaking process. These are typically highly structured and focused, with policy documents available for people to read and then an opportunity to post comments on specific questions.

2. 'Have Your Say' sections – discussions are relatively unstructured and generally left open so that users can post about what *they* want, not necessarily what governments want to hear about. This shift in agenda–setting power can have a liberating effect, as there may be subjects that people are interested in, but of which governments are not aware. However, the downside is that the discussion generated is not always focused and its policy impact is deliberately limited.
3. Mixed models – the websites either have a separate policy forum and 'Have Your Say' area (such as on the Downing Street website; www.number-10.gov.uk/), or a structured discussion board with set topics and a thread where people can post about any subject.

However, the fact that design might affect behaviour should not lead to the conclusion that we are talking about technological determinism. Technology can facilitate deliberation but cannot guarantee that it will happen in any one particular way (we need only to recall the capacity of people to find new and unpredictable uses of any given technology). Second, the technology is itself a product, in part at least, of choice. The software is commissioned, and the client's requests are important to the format adopted. In other words, both the software's design, and the decision by authorities to adopt a particular package, is crucial to the outcome. The politics of technology, one might say, are a key part of the story being told about the deliberative potential of the internet. The politics is there in both what is designed into (and out of) the technology, and what political choices are made in commissioning the technology. This is a position which acknowledges an element of political choice in the creation of technologies and an element of technological determinism (for a fuller exposition of this approach, see Street, 1992). It also suggests that the structural design of a discussion board can affect subsequent usage by influencing the level of interactivity and discussion. These arguments go to the heart of the debate between institutional (website) design and democratic processes (Lowndes and Wilson, 2001; Wright, 2005b).

The argument of this article is that technology is both shaped by, and shaping, political discussion on the internet. In what follows, it tries to demonstrate these twin processes. It begins with two examples of how technology shapes political discussion on the internet. The first concerns the online deliberative poll developed by James Fishkin; the second concerns the role that moderators perform – that is, the way in which a particular institutional function (i.e. moderation) is used to generate particular kinds of results.

Designing for deliberation 1: the case of the deliberative poll

The Deliberative Poll, developed by James Fishkin, is a consciously designed process grounded in his conception of deliberative democracy. The Deliberative Poll brings together representative samples of the populace to discuss issues

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face-to-face. The Online Deliberative Poll is developed from the same principles, but the participants never meet, providing considerable financial savings. Using the internet also makes the system much more flexible, as groups can be assembled relatively quickly and deliberations extended over a period of time or to discuss specific events as they happen (Iyengar et al., 2004). A further advantage of the online system is that it is designed to produce information on exactly what people are doing. For example, the software stores data on how long people spend reading each introductory argument and then this can be compared with their subsequent arguments and positions.

The most innovative design aspect of the Online Deliberative Poll is that computers and internet access are given (as gifts)[7] to those who do not have it to ensure representativeness. A second feature of the design is that people have to participate through synchronous voice-based, rather than text-based, software, because this might:

> a) facilitate some of the affective bonding and mutual understanding we observe in face-to-face groups; b) avoid disadvantaging less literate participants (who may be intimidated by the task of typing their responses); and c) in contrast to most Internet studies, which rely exclusively on text-based 'discussion', achieve a closer match with face-to-face discussions. (Iyengar et al., 2004: 8)[8]

Thus, the Online Deliberative Poll was based on a very different design to that of the traditional text-based, asynchronous and unrepresentative online discussion forum.

This is an example of how technologies can be adopted, and processes designed, in ways which meet specific democratic values. Most interestingly, face-to-face deliberation was found to be only slightly more effective than online deliberation in changing opinions. Iyengar et al. argue that this is 'striking given the multiple differences of detail in the treatments' (2004: 17), such as the mode of deliberation, differences in moderation patterns and differences in the elapsed time from start to finish. This leads them to conclude that:

> Clearly the Online Deliberative Poll is a viable process with significant potential for improving practices of public consultation and for illuminating our understanding of the role of deliberation in opinion formation. (2004: 18)

These conclusions chime with Iyengar et al.'s other findings on the effects of design. They suggest that design – the form of software – plays a significant role in determining the form and effectiveness of democratic deliberation. To reinforce this general conclusion, we can show how moderation has similar effects. Moderation is another design feature of internet discussion.

Designing for deliberation 2: the case of moderation

The choice of moderation style[9] can be significant (and positive) in shaping the quality and usefulness of online debates, particularly for government-run

discussions (Edwards, 2002; Wright, 2006b). As Kearns et al. argue: 'The use of moderators is important in keeping citizen engagement focused and in consequently ensuring that such engagement adds value to services, to policy, and to citizens' (2002: 26). Coleman and Gotze state that: 'mechanisms of moderation and mediation are crucial to the success of many-to-many, asynchronous dialogue' (2001: 17). Similarly, Wilhelm believes that the

> moderation of online political forums is critical to their success as agents of decision making or as amplifying issues to be addressed by policy makers. In building bridges – whether it be resolving conflicts, planning neighborhood futures, collaborative problem solving, or prioritizing issues – a skilled and trusted facilitator is often necessary to manage the forum and to create order out of potential chaos. (2000: 140)

The moderator is seen as crucial to enabling democratic debate in order to attain a minimum level of respect, civility and goodwill (Carter, 1999).

Put another way, a differently designed moderator role can have negative effects upon deliberation. For example, a policy of silent moderation[10] on the UK's Home Office forum was found to be very counterproductive because it created a 'conspiratorial image of the moderator, with a number of threads dedicated to fighting against Big Brother-like, invisible moderators' (Coleman et al., 2002: 17). A similar situation occurred on the UK's Downing Street website. The rules that governed the debate were vague, and did not take account of the housekeeping functions employed by the moderator, leading to numerous embarrassing accusations of political censorship (Wright, 2006b). This was complicated further by the initial use of a mechanized filter that barred messages containing a range of words such as 'fairy' and 'dick'. This system was subsequently altered, and then dropped, highlighting the fact that the design of a discussion forum is important but not fixed.

The role of the moderator is not determined simply by external political choices but also by the software used. Some software packages, for example, allow the moderator to hive off or close divergent discussions. There is a further distinction to be made between software that pre-moderates and that which post-moderates. Pre-moderation, in which the moderators read each message prior to it being made visible may disrupt the rhythm of the discussion, as Wilhelm and Van Dijk have suggested. Equally, if messages are post-moderated, offensive messages will be made visible. Therefore, designing the moderation strategy has consequences for the type of deliberation.

Local government, discussion forums and design

These processes of design, and the choices entailed in them, can be illustrated in further detail when we consider the creation of discussion forums on local government websites in the UK. The 'ownership' and design of websites are important factors in determining the participatory facilities offered. Design

does not just emerge mysteriously out of the ether. It is a matter of commissioning and control.

Most county council websites were designed by a small group of companies such as Tagish (www.tagish.co.uk/isite2.htm). This practice of commissioning from a small pool created considerable standardization, despite an appearance of diversity. Websites are based around the same basic shell but are filled out, maintained and updated by council employees. The key point is that the standard design was not solely a product of the software, or even of the software developers. It was a result of political choices. According to Tagish, its off-the-shelf packages provided all the facilities which, 'experience' told it, a council required. Standardization was a consequence of the 'consistency of requirements between councils'. Tagish saw itself as servicing the councils who commissioned it, and that the client was the driving force. Tagish believed, for example, that the range of facilities offered to councils 'will be increased in breadth and depth as [the] requirements of Councils change' (see http://www.tagish.co.uk/NonStopGov). According to those who provided the software, technological design was driven by council demand.

On the specific issue of public participation, councils have tended to commission sites that maintain existing institutional and cultural practices. Norfolk County Council, for example, deemed online methods unrepresentative and therefore opted for a citizen's panel as its primary consultation mechanism.[11] Derbyshire County Council's view of its role influenced the kinds of participatory mechanisms that it offered (or did not offer) over the internet. The 'Your Council' section began:

> Councillors represent the wishes of the people who elect them. They take up
> the cause of people in their areas who need help from the county council. They
> take account of local people's needs and wishes. (http://www.derbyshire.gov.uk/
> yourco/yourcoindex.htm)

Given this position it is perhaps unsurprising that Derbyshire.gov.uk did not have a consultation or feedback area, but did have a section to help people to find their county councillor. In the same way, where online participation could not meet council expectations, a different method was used.

Generally, at the local level, online consultation has proved to be a far more popular mechanism for communication than discussion forums. In 2002, some 62 percent of the UK's county council websites were running online consultations, while only 15 percent had a discussion forum.[12] In other words, councils appeared to be opting for one kind of public participation over another, and in so doing constituting a particular kind of relationship with their citizens. While councils may not have engaged in a free choice, and the process of policymaking is clearly more complicated than choosing between options, it does seem that in some way councils did opt to exclude

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discussion forums from their websites. This is because discussion forums are available as 'freeware' downloadable at no cost from the internet.[13]

In making such decisions, it may be that councils were not operating purely in the interests of democratic or other political values. Kevin Paulisse, designer of the DiscusWare software used by Cumbria County Council, believed that site administrators were 'more likely to be motivated by an attractive interface than the quality of the debate it will inspire'.[14] Equally, there is evidence that clients will accept forms of design which, while not attractive or user-friendly, are valued because they serve other principles. Simon Banton, who designed the Novacaster discussion board software used on various government websites, believes that users will put up with poorly designed software if they perceive the underlying tool to have value. He argues that:

> Coming up with a good user interface is not easy – and technology often imposes constraints of its own. HTML is a case in point – writing complex applications using only standard HTML is a frustrating task, which is why you see lots of Flash, JavaScript, Java and ActiveX jammed together on the 'net. (http://community.novacaster.com/showarticle.pl?id=1732)

For Banton, discussion forums are 'in the early days of user interface design and the similarity of several competing offerings in this arena just shows that form tends to follow function' (http://community.novacaster.com/showarticle.pl?id=1732). This may well be true. We cannot assume that political values determine the choices made, and it may be that aesthetic judgement and other factors play an important part. Whatever the case, the central point is that the form of public participation is a result of processes that decide the type of web design adopted.

The implication of this argument is that we need to study the processes by which websites are commissioned and the parameters that are designed into the software. We believe that this would help us to move beyond the rather sterile debate that tends to dominate the stand-off between those who believe that the internet can enhance deliberation, and those who believe it will harm it. Although a fully-fledged analysis falls beyond the scope of this article, we have undertaken initial research into the effects of design on the nature of discussion.

DESIGN AND ITS EFFECTS ON DISCUSSION: THE CASE OF FUTURUM

To highlight the effects of design on discussion, we repeated Anthony Wilhelm's methodology on Futurum. Futurum was the European Union's main online discussion forum, hosted on Europa and linked to the European constitutional process. Wilhelm analysed both Usenet and AOL's Washington Connection forums, with a view to establishing the extent to which they

fostered deliberation. He found that neither was effective in this respect. Our question was whether Futurum produced similar results, or whether because it had a very different structure to Usenet it would facilitate a more deliberative debate. Futurum was distinctive in the following ways. It had pre-moderated posts, with extensive rules on what is considered acceptable content, a threaded structure designed to encourage debate, a clear institutional context and €200,000 funding for advertising the debates.

Wilhelm used standard content analysis methods, setting up a dictionary of content categories. The aim of Wilhelm's study was to 'clarify the degree to which discussion migrating to new communications networks displays or approximates any or all of the salutary characteristics of deliberation as described by theorists and practitioners' (2000: 88). Following Habermas, Wilhelm argued that deliberation is the same as critical rational reflection. Thus, one of Wilhelm's categories analysed the presence of such rationality as a measure of deliberativeness. More generally, Wilhelm used the arguments of Fishkin (1992) to suggest three conditions that make deliberation possible: political messages of substance exchanged at length; the opportunity both to reflect on these messages and debate them further; and messages processed interactively with opinions tested against rival arguments. These conditions were used, along with others, to develop his research questions and categories for analysis.

Wilhelm (2000) developed four research questions to help clarify the quality of discussions against these criteria:

> To what extent do participants of virtual political groups solely provide ideas and information, rather than seek information from other members?
> To what extent do participants of political groups exchange opinions as well as incorporate and respond to others' viewpoints?
> To what extent is there in-group homogeneity of political opinion within Usenet groups?
> To what extent are substantive, practical questions debated rationally in contradistinction to *ad hominem* argumentation not susceptible to criticism and/or grounding?

Although Wilhelm did not explain why he chose these particular research questions in any detail, they relate to Fishkin's necessary conditions for deliberation. For the first research question, Wilhelm argued that 'it is hard to imagine reciprocal acts occurring' if most users only provide information as opposed to seeking information from others. The second research question was concerned with the interactivity of the discussions, and is justified through Fishkin's (1995) argument that for a deliberative process to be complete, there must be sufficient information to explain the full force of a claim; it must be possible for citizens to weigh up each argument; and they should be listened to and answered. Wilhelm's third research question was designed to test whether Huckfeldt and Sprague's (1995) finding that people

tended to form groups with like-minded people, was also true of online discussion forums. This is based on the assumption that for discussions to be useful in a democracy, a range of opinions must be debated. The final research question was designed to test the critical–rational dimension and was based on Habermas' argument that, in principle (i.e. if an argument were conducted openly and continued for long enough), a rationally motivated agreement must always be reachable.

Wilhelm (2000) developed eight categories (see Table 1) with which to classify messages.[15]

The first category, 'provide', analyses whether messages provide only information or content to the forum as opposed to making a query or replying to a post. If there was any kind of a query or reply, the message was coded as 'seek' or 'reply'. Similarly, if a message provided a spark for a new thread, or a new discussion within a thread, it was coded as a 'seed' message. Thus, in practice, if a message did not 'seek', 'seed' or 'reply', it was coded as 'provide'.[16]

The second set of categories analyses the reciprocity of messages. The 'incorp' category asks whether a message includes opinions or ideas from information sources outside of the forum. 'Incorp' may also be coded as 'seek'

• Table 1   Coding scheme

TAG	FULL NAME AND DEFINITION	QUESTION
Provide	Provide: A message that is solely providing information from other participants in the form of facts, opinions and the like	Q#1
Seek	Seek: A message that includes evidence of information seeking in the form of queries, open-ended remarks, and the like	Q#1
Seed	Seed: a message that plants a seed for discussion, usually providing the groundwork for a topic, always the first in a series of reply messages	Q#1
Incorp	Incorporate: a message which incorporates opinions or ideas drawn from others, whether they be experts or other citizens but *not* those who are participants in the exchange in question	Q#2
Reply	Reply: a message that is the response or reply to another message previously posted	Q#2
Validate	Validate: an expression which is subject criticism and grounding assessed in light of the internal relations between the semantic content of these expressions, their conditions of validity and the reasons (which could be provided, if necessary) for the truth of statements or for the effectiveness of actions.	Q#4
Novalid	Novalid: an expression which presents neither conditions of validity nor reasons for the truth of the statement 0 instead, appeals are made largely to personal prejudice, emotion, or aesthetic judgement	Q#4

but the reverse cannot be true. 'Reply' refers to a message which is a reply or response to a previous message.

Finally there are the 'validate' and 'novalid' categories. As noted previously, these were drawn from Habermas' argument that in principle, rationally motivated agreement must be reachable. Noting that making such an assessment is difficult, Wilhelm operationalized the category by arguing that where posters provided arguments and/or reasons for the validity of their positions, this could be considered sufficient in suggesting that a rationally motivated agreement was achievable because common ground might be found.

It is not possible to repeat Wilhelm's methodology exactly because there is an element of subjectivity when making qualitative judgements: it 'relies on the interpretation of the person undertaking the analysis'. (Smith and Macintosh, 2001: 4) Nevertheless, Wilhelm's coding categories, and his explanation of how they were executed, are specific and detailed enough to conclude that the judgements we made were roughly similar to his.

Our methodology does differ from Wilhelm's in terms of how the sample was selected.[17] We randomly selected ten percent of seed messages from the general discussion forum. The forum received 659 seed messages with 4420 messages in total. The seeds were controlled for by the length of thread, and thus the sample ($N = 472$) was representative of the overall thread lengths. This allowed a degree of certainty in suggesting that the results were representative of the general discussion. Unlike Wilhelm, we chose to analyse all messages that replied to the selected seeds. Of the sample, ten percent of the messages were counter-coded to ensure decisions were acceptable and replicable. The inter-coder reliability rating was nearly 98 percent, with the majority of disagreements relating to the validate category (Table 2).

The table lists each coding category in the column on the left and then the results from each of the discussions. The table shows that there were considerable differences between the results from Usenet, AOL Washington Connection and Futurum. The starkest difference was the 'provide' category. Due to the way in which Wilhelm required us to calculate the results, no messages that 'seek', 'reply' or 'seed' discussions could be included. In his analysis he found 'provide' rates of 71.2 percent and 67.3 percent for Usenet and AOL respectively. This compared with a 'provide' rate of just 0.2 percent on Futurum. As noted earlier, Wilhelm (2000) concluded that the discussions generally lacked listening and communication. The results from Futurum directly contradicted this: Futurum was highly interactive. Only one message did not seek, reply or seed a discussion. The bulk of messages were replies – a 70.9 percent increase on that which Wilhelm found on Usenet.

• Table 2   Comparing futurum with usenet/AOL

CONTENT CATEGORIES	USENET (%)	AOL'S WASHINGTON CONNECTION (%)	GENERAL DISCUSSION FUTURUM (%)
Provide	71.2	67.3	0.2
Seek	27.9	32.5	43
Seed	15.7	18.2	14.8
Incorporate	52.9	47.7	53.6
Reply	15.5	23.1	86.4
Validate	67.8	75.6	75
Novalid	32.2	24.4	25

(Sources: http://www.europa.eu.int; Wilhelm 2000)

The number of seed posts was slightly lower than in Wilhelm's case studies. However, this was because discussions tended to last longer, rather than because people were not asking each other new questions. The rates of inclusion were just above those found by Wilhelm. It was assumed that the posts on Futurum would include significantly more material, but this was not the case. It would appear that users were often very knowledgeable about European affairs and did not feel obliged to include external opinions. Given that incorporation rates were still higher than that found by Wilhelm, this would not appear to be a significant problem.

The degree to which messages support the validity of the participants' positions by argumentation or reason is indicative of deliberation. While this content category cannot guarantee validity, if postings meet its criteria they 'provide the groundwork for reaching rationally motivated agreement' (Wilhelm, 2000: 95). Futurum had 7.2 percent more validated messages than was found by Wilhelm on Usenet, but marginally less than those on AOL. Nevertheless, the fact that 75 percent of messages provided some kind of grounding for their position suggests that the chances of coming to a rational decision were reasonable. Moreover, not all posts needed a rational argument because they merely posed a question from someone else. It was often the case that when a post was coded as 'invalid', it was not because the person did not want to validate their position, but that there was no actual position to validate.

The differences between the results from Futurum and Usenet or AOL can be explained in part by reference to their design. The structures that surrounded the discussions had a significant effect on the interactivity and deliberation. In particular, the use of pre-moderation appeared to be important as it kept messages related to the subject. The moderation of postings helped to produce a more respectful atmosphere than that which Wilhelm found on Usenet. Although arguments did get heated and at times somewhat personal, overall the participants were interested in

communicating with each other, as is indicated by the high reply rates. Moreover, facilitated by the software which allowed multilingual discussion, a significant minority did communicate in a range of languages (Wodak and Wright, 2007). A further structural factor was the design of the interface. Futurum had a threaded system of messages, and this encouraged replies. Similarly, the clear institutional context and supposed link to policymaking may have encouraged people to take the debates seriously (Coleman, 2001).

There are factors beyond design issues which may have influenced the results. First is the different sampling method. It is not clear whether Wilhelm took the first ten messages from a thread or picked a message and took the ten subsequent messages. We believe that the nature of discussion will change during the course of the debate (for example, shorter messages with more replies the longer a thread lasts) and thus our decision to analyse whole threads may have made a difference. Second, the participants on Futurum may have been more educated (it appeared that many spoke more than one language – Wodak and Wright, 2007) or were otherwise more disposed to partake in deliberative exchanges. But this does not undermine our argument, which is not that design *determines* deliberation, but that it can facilitate or impede it; users may or may not choose to use the opportunities provided by the software (Wright, 2005b). One final explanation, which follows Stromer-Galley (2003), is that the topics under discussion may have influenced the deliberative quality of the debate.

CONCLUSION

This article has sought to move forward the debate about the democratic potential of the internet by arguing that the stand-off between those who believe that the internet destroys deliberation, and those who argue that the internet enhances it, can be avoided by more detailed examination of the processes that are involved in the creation and operation of websites. The argument here is that political clients commission websites, and in so doing they make choices about what function the site is to fulfil. At the same time, we suspect that the design of the discussion forum commissioned itself shapes subsequent deliberation, as the example of Futurum has suggested. The potential importance of design is not limited to the architecture of the internet itself (although obviously this is important) but to the nature of the interface: how it is designed and constructed. We suggest that following the approach adopted here will enable the important debate about e-democracy to focus on issues and processes that have been neglected for too long. This article has argued that website design, and the commissioning of that design, may be crucial to appreciating the democratic potential of the web. To this end, we believe that comparative experimental discussion forum design and testing is necessary. We also believe that more attention needs to be devoted to the

political processes that precede the construction of sites and accompany their implementation.

Acknowledgement

Notes

1 Online discussion boards are typically asynchronous. This means that people have the time to go away and think about messages, unlike most face-to-face interactions, in which communication is structured as a synchronous conversation.

2 Usenet (Unix User Network) is a communications medium in which users read and post textual messages to a number of distributed bulletin boards known as newsgroups. The most important distinction between Usenet and other forums is that it is highly decentralized, being sustained by a large number of servers which store and forward messages to one another.

3 As Sack (2005) has noted, making such claims about the nature of online discussion based on a sample of 500 messages out of an estimated 800 million posted on Usenet is an overstatement.

4 Some Usenet forums are moderated by human intervention. However, the most common form of moderation is computerized 'kill-bots'. This refers to software that automatically moderates the content of messages against pre-set criteria. For example, they can analyse for repetitiousness both within and across forums as well as for the use of swear words (Leug and Fisher, 2003).

5 See also a recent competition to design town halls in ways that would deepen participation: http://www.designsondemocracy.org.uk/

6 For Preece, 'usability is primarily concerned with how users interact with the technology' (2001: 349), while 'sociability is concerned with how members of a community interact with each other via the supporting technology'.

7 The gifts are an attempt to ensure that participants take the exercise seriously. For those with computers, a lump sum of $500 is given.

8 Each participant was given headsets, microphones and Lotus Sametime software. This works similar to debating chamber technology, where people can request and release the microphone, as well as identifying the speaker and the list of people who wish to speak.

9 Wright (2006b) has outlined two broad types of moderation that are used in British and European government-run online discussion forums. First, there is content moderation. This can be covert or overt and mechanized or done by hand. Second, there is interactive moderation, in which the moderator performs a much broader range of roles such as replying to messages, encouraging people to join the debate and providing summaries. Interactive moderation is similar to Edwards' (2002) conceptualization of the moderator acting as a democratic intermediary.

10 Moderators did not participate in debates and did not explain why messages were deleted.

11 Interview with Tim Anderson, e-Government Officer, Norfolk County Council, November 2001.

12 This survey of 34 county council websites was undertaken between 13 and 15 March 2002. A survey of the methods being used to consult, conducted on Citizen Space's consultation archive, found that 95.8 percent did not use interactive methods, as was suggested by the 'In the Service of Democracy' Green Paper (Wright, 2006a).

13 Cumbria County Council initially chose discussion forum software that was freely available before upgrading to the professional version.

14 Personal communication with Kevin Paulisse, co-creator and owner of DiscusWare, 28 May 2003.

15 Wilhelm's third category, 'homogenous', asked about the political affiliations of posters and whether like-minded people associated together by measuring the political views of posters. This was not used here as the discussions were not party political. Similarly, there were a further five context categories. These are not included here (see Wright, 2005a for detailed analysis of the context categories).

16 It is not immediately clear from Wilhelm's explanation which categories preclude a message being coded as 'provide'. However, when Wilhelm's results are analysed, it is possible to deduce that the categories are 'seek', 'seed' and 'reply', because the other categories' percentages are too high to be counted with 'provide'.

17 Wilhelm opted for a broad sample taken randomly from a variety of political newsgroups. From within these a further random sample of 50 threads was taken and the first 10 messages were downloaded for analysis. Wilhelm felt that this would produce results which could be generalized. However, this claim has been disputed (Wright, 2005a).

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