A Two-room E-Deliberation Environment

Fiorella De Cindio°, Cristian Peraboni°, Leonardo Sonnante*

° Dip. Informatica e Comunicazione, Università degli Studi di Milano, Italy
* Fondazione Rete Civica di Milano, Italy

fiorella.decindio@unimi.it, cristian.peraboni@dico.unimi.it, leonardo.sonnante@rcm.inet.it

1. Introduction

In representative democracies, citizens and politicians are coupled by a double link: citizens elect politicians to govern and to represent them in deliberative assemblies (local, regional and national parliaments); governments and parliaments make decisions (in the name of those they represent) and citizens have to then comply with these decisions. Traditionally, the communication channel is basically a broadcast from public institutions (governments and parliaments) to citizens to inform them and create consensus about decisions already made. However, this one-way channel has shown myriad limits, and a great deal of literature exists (which, for the sake of space, we assume is generally known to the reader) about the need to enhance communication in the other way around, i.e., from citizens toward public institutions. This may occur at different levels: in accordance with the OECD report *Citizens as Partners: Information, consultation and public participation in policy-making* (Caddy and Vergez, 2001), which has become a standard reference of sorts in European countries, we identify three levels, each representing an increasing degree of citizen participation:

- the information level: (i) public institutions are committed to providing citizens with all needed information completely and promptly; moreover, (ii) institutions should also commit to accepting and publishing comments on this information and on other materials provided by individuals or groups of citizens;¹
- *the listening level*: public institutions are committed to listening to citizens' opinions before making decisions;
- the involvement level: public institutions are committed to involving citizens in the decision-making process.

Recent years have thus brought attempts to gather consensus for projects of great impact by informing all segments of the local community, listening to their opinions, collecting suggestions and proposals, and, in some cases, defining a path to reach a joint decision with the community. Various cities throughout the world have run experiments with city juries, town meetings, and deliberative polling; other cities have projects for participatory budgets, local Agenda 21 or participatory urban planning (Ginsborg, 2006). These concrete experiments in local governance, promoted by local institutions, overall, have made limited use of information and communication technology (ICT). As was observed during the EC eDemocracy Seminar (Macnaughton, 2004) rather "conventional technologies dominate the picture of the

¹ Though the OECD report omits the second commitment, we deem this essential to creating an environment of trust (see below), for it allows citizens to view themselves as *advisers* rather than *users* of the public sector, while officials begin to see citizens as resources rather than mere sources of criticism and protest.

cases presented during the workshop": basically, very simple websites to distribute information about the ongoing process, publish a few basic documents and, in some cases, provide a discussion forum which usually remains inactive. Because maintaining a participation process with multiple social actors is extremely difficult, the limited use of ICT has contributed to making most of these experiments occasional, expensive, limited in duration, and difficult to replicate. It is recognized, by Ginsborg (2006) for instance, that more systematic and appropriate use of ICT could help deal with these limitations and difficulties.

On the other hand, over the past two decades, citizens and social activists have made extensive and effective use of ICT in general, and of the net in particular, to support their activities. Community networks (Schuler, 1996), pioneered the use of net-based applications (at the time, mainly bulletin-board systems) to enable grass-roots civic engagement and people's active engagement in civic issues (De Cindio, 2004). By gathering people-provided content, they offered empirical evidence of participation at the information level (cf. 1.ii above) and suggested the idea of civic intelligence (Schuler, 2001). More recently, opportunities offered by the so-called "Web 2.0" (O'Reilly, 2005), along with the facilities provided by mobile technologies, have enabled new kinds of online communities and several types of online social interactions. Blogs² and blog networks (Ito, 2004), RSS feeds, and tagging facilities have allowed citizens' committees around the world to debate and to organize protests, petitions, and other forms of civic action. The 2000 protest in Seattle against the World Trade Organization, the critical mass movement (http://www.critical-mass.org/), begun in San Francisco and now spread to several cities worldwide, as well as several citizens' committees started in Italy to protest new infrastructure projects (see,e.g., http://www.notav.info and http://www.nomose.org) are examples that show the net's potential to communicate, to share knowledge, and to organize actions; i.e., its capacity to manage the online dimension so as to augment the offline dimension. However, if people can't find a way to influence the government or the public institution in charge of the issue, at least to some extent, i.e., if they see no realworld effect of their engagement, public dialog and participation decrease little by little and eventually disappear.

Let's try to conceptualize this situation in a way that helps design a computer-enhanced space to support all three of the aforementioned levels of participation:

- citizens are the leading actors in the *community space*: public dialog on civic issues is the basis for creating a climate of mutual trust among participants, for sharing civic intelligence and fostering civic engagement (by promoting petitions, organizing protests. etc.);
- (local) public institutions need to move from government to governance, by involving citizens and other stakeholders in the decision-making process; i.e., they need to set up a *deliberation space* where a shared policy or position is reached through a participatory process that consists of a series of deliberation stages, each involving different participants and relying on a different participatory modality, such as: informed discussion, brainstorming, citizen consultations, and negotiation.³

Moreover, these two spaces need to share an *information space* containing materials, links and informative resources provided by the involved participants.

The two spaces need each other. The community space needs to find interlocutors in the institutions. For example, petitions may be promoted by (a group of) citizens in community space but also need to be considered by the addressee institutions. Conversely, institutions have to be able to rely on a trusted

_

² Famous, in Italy, is the case of comic actor Beppe Grillo's blog (http://www.beppegrillo.it/), through which, in late summer 2007, he organized a large protest against the nation's political 'caste.' His blog is now supporting "civic lists" of candidates running in the forthcoming municipal elections.

³ These are some of the *participatory modalities* that Bobbio (2004) identifies in examining a vast array of participation experiments, mainly in Italy.

community for successful deliberative processes. Participation can be seen as the bidirectional link that unites the two spaces, as shown in Figure 1.

This paper deals with the design, implementation, and initial field testing of a software platform designed to support activities in community space, in deliberation space, and in relating the two. This software platform is therefore called *Deliberative Community Network* (openDCN, distributed under FLOSS software licences). It consists of a set of software components that were designed, implemented, and tested as part of a series of projects and initiatives. Field experiments have provided feedback on improving existing software components and suggested new components. For instance, while running the site www.ComunaliMilano2006.it (now evolved into www.partecipami.it), the first prototype of openDCN (De Cindio, De Marco, Ripamonti, 2007), we fielded a request for petitioning tools from citizen participants. The new component is now under development.

Each instantiation of openDCN involves choosing from available components, as well as setting up the infrastructural components that enable the system to function properly. In addition to managing interactions among the various components, the system must interact with users and provide for management and monitoring.

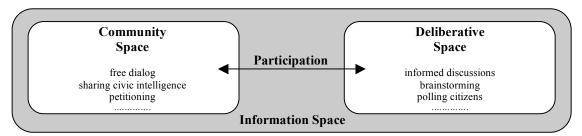


Figure 1

In the following pages, we present the currently most advanced experiment with openDCN. It takes place in the framework of a project named "e21 for the development of digital citizenship in Agenda 21", funded within the "Call for Selecting Projects to Promote Digital Citizenship (e-Democracy)" issued in 2004 by Italy's Ministry for Innovation and Technology. The purpose of the project, started in September 2006, is to overcome the hindrances to participation typical of local Agenda 21 processes, such as those described by Evans and Theobald (2003). The partners in the project are ten municipalities in the Lombardy Region (including five province capitals). All ten have signed the Aalborg chart, i.e., are committed to pursuing the Kyoto Protocol by involving citizens in sustainable development projects and activities. One, Desenzano, also has previous experience managing a community network. In San Donato, a community network has existed since 1995 as a grassroots initiative, without significant ties to city administration. Only in one case, the city official website hosts a fairly lively forum on civic issues.

The next two sections describe the main features available in the platform's community space and in its deliberation space, along with more pragmatic considerations arising from the e21 project experience. Section 4 briefly summarizes the salient results attained so far from the ten e21 experiments and draws a few initial conclusions.

2. Community Space

In general, the platform's community space aims to foster public dialog on civic issues as the basis for establishing a climate of mutual trust among participants, for sharing civic intelligence and for promoting civic engagement. From a technical point of view, community space may consist of various tools: public forums (the core of every online community), newsletters, news boards, event calendars, and blogs. Each participation project needs to determine the most appropriate combination of tools. For instance, in the

above-mentioned experience <u>www.ComunaliMilano2006.it</u>, we used a combination of public forums, events calendar, and blogs.

Within the e21 project, community space also has the major goal of attracting citizens into participation space. Because e21 is an extension of local Agenda 21 and local Agenda 21 concerns sustainable development in a territory (in the case, the partner cities), we decided to draw people's attention by using the increasingly popular GoogleMaps© to develop our CityMap.

• 2.1 CityMap: the participation map

The CityMap (Figure 2a) represents the map of participation activities in the city. It allows people to locate participation events (free discussions and deliberative processes) on a map. The idea is to allow citizens to 'tag' places in the city with discussions and related documents. It is thus possible to collaboratively build a representation of the city based on the civic intelligence collected and shared during discussions.



Figure 2a - An example of a CityMap

Figure 2b - Visualization of a discussion

The CityMap uses GoogleMaps© (and related APIs) to manage the map. Every free discussion is represented on the map by a small balloon icon: red if the discussion was started by a citizen, blue if it was started by a local government official. Larger blue balloons represent formally established participatory processes and link to deliberation space: blue because only local government can initiate a participatory process.

A free discussion is composed of an opening message and a set of messages replying to it. Opening messages may be posted only by registered participants. Replies can be posted both by unregistered and registered users (Issues of authentication and moderation are discussed below.). Every message is listed as soon as it has been sent but is readable only when approved by the moderator. Because unapproved messages are nevertheless listed, the moderation process is fully transparent. Replies can be tied to the opening message or to any other message in the discussion. To make the structure of the overall discussion immediately evident, we decided to display message headers at a glance on a single web page with appropriate indentation (see Figure 2b, right). Thanks to a simple JavaScript, when someone wants to read a message, its body is opened (and then closed) within the same webpage that displays the

message list. This solution also helps people to insert replies in the right place and allows us to track readings of each post.

People can assign each post and each informational item a numerical value from 1 (low) to 4 (high) which express its degree of consensus and can flag a "relevant" button to signal posts which play a fundamental role in the discussion. This feature lends technological support for what Edward (2006) has termed different *styles of citizenship*: one "stronger," more active, manifested by writing posts and another, "weaker," shown by weighting consensus and relevance. The 'votes' thus attributed are displayed in posts' and informational materials' headers and can be used as a criterion for priority in reading a discussion, as it is common in several web 2.0 services.

• 2.2 The social structure of community space

Let us now to turn attention to some of the fundamental choices that characterize the social structure of community space and influence corresponding choices in deliberation space. These choices involve such questions as:

- who may contribute to the CityMap?
- do we require people to register or do we accept posts from unregistered users?
- how can we preserve fair dialog among participants?

It is well known from studies on online and virtual communities that these choices influence mutual trust and the creation of a sense of community.

The first question involves changes in the notion of citizenship that occur in an augmented environment. Traditionally, we distinguish among permanent residents (who spend their lives in the city), temporary residents (such as students, who may not vote in the municipality but do dwell in it), and commuters (those who come in daily to work or study). Whereas only residents have the right to vote, inhabitants from the other categories also play a significant role in city life. Therefore, we decided that, unlike what typically occurs with e-government services reserved for official residents, our community space was to be open to everybody. However, because residents and nonresidents may have different perspectives on issues, we decided to track these differences while dealing with registration (see below).

The second question concerns people's online identity (or identities) and their interplay with offline identities. Our long-standing experience managing the Milan Community Network (*Rete Civica di Milano*, RCM for short) suggests that, in order to create a trusted environment that stimulates participation by government officials, online identity must be made to reflect offline identity (De Cindio, Ripamonti, and Di Loreto, forthcoming). In other words, people may participate once they have registered in their 'real' name. However, on the web, a different style has taken hold: comments in blogs typically require no registration and are often anonymous.

During the field study carried out at the beginning of the e21 project on the state of participation and e-participation in the partner municipalities, the public officials and politicians in each partner municipality asked to adopt a registration procedure that could guarantee participants' identity insofar as possible (and we know that this can never be absolute). However, analysis of the partners' websites revealed that the only one hosting a fairly lively forum on civic issues required no registration. Of course, the officials responsible for this website did not want to restrict participation.

To balance these different needs, we decided to leave comments on the CityMap open to unregistered users, while requiring registration to open a new discussion (i.e., put a new balloon on the CityMap) or to upload informational resources. Registration is also required to participate in deliberation space. That is, registration is needed for access to higher degrees of participation. However, even unregistered users are asked to provide their names (which, of course, does nothing to prevent fake identities) and an email

address, to which a verification message is sent. Unchecked messages are tagged with an 'email not verified' warning.

Finally, let us consider the third issue: how to preserve fair dialog among participants. Here again we have applied the lessons learned managing the Milan Community Network, fully presented in (De Cindio et al, 2003). All participants must comply with the so-called *Galateo*, i.e., a set of standards and specific rules for online behavior that, above and beyond netiquette, on the one hand, and Italian national law, on the other, should guarantee fair dialog in a welcoming environment where everyone can feel at ease expressing her/his own ideas and opinions. The *Galateo* brings along with it the need to choose a trusted person committed to making sure the *Galateo* is observed: rather then as a censor in charge of disapproving messages that fail to comply with the *Galateo*, we prefer to see her/him as the person who helps participants present their ideas in fair and civil fashion. S/he is also the facilitator of more inclusive participation, acting as an outright community manager.

Because there are usually no city employees suited for such a role, the e21 project hired a (part-time) *promoter* for each partner municipality. It should be noted that: (i) the promoter is a kind of third party between the citizenry and the city administration, which may become significant in case of controversy; (ii) the promoter is not responsible for discussing policy with citizens, a job that falls to a public official who deals with the matter under discussion.

• 3. Deliberation Space

Deliberation space makes up the core of the participatory system. Participatory processes consist of a series of deliberation stages, each relying on a different participatory modality and involving different participants. This therefore calls for outright *structured participatory processes*, divided into clearly distinct phases, each of which relies on a specific deliberation tool.

What sets the different tools apart is the modality used to arrive at a shared policy or position. OpenDCN includes modules to support listening techniques and constructive interactions inspired by the sociological literature on participatory processes, such as Wates (2000), for example. Because participatory experience is necessarily strongly rooted in a given socio-political context, we took both theoretical and practical Italian research in the field as our point of reference (Regonini, 2005; Bobbio, 2004; Sclavi 2002). Moreover, in the preliminary phase of the e21 project (De Cindio, Gemini, Sartori, Sonnante, 2007), we asked the partner municipalities which participatory processes they intended to carry out as part of the project, thus identifying implementation priorities. As a result, the e21 system currently contains three deliberation modules as well as a process-building module to coordinate the various deliberation tools in a single, structured process.

Each deliberation tool brings together a council of extended stakeholders but differs from the others in the modality of the process it instantiates. Despite their differences, all the deliberation tools share three architectural functionalities: identifying the actors, framing the issue, and producing a shared position that summarizes the outcome of the deliberation process. Each module manages these three constituents independently from one another. For example, there are likely to be more actors identified for a voting session than those who speak out on a technical panel. The platform therefore supports redistributing the participants of each module into groups with different roles. The same goes for information gathering: a given deliberation session may require access to only part of the material in the information space.

The deliberation tools currently available in the e21 system are:

- Informed Discussion to engage in asynchronous discussion based on shared information resources and to support collaborative production of discussion-summary documents;
- Online Deliberation to structure synchronous debate around formal protocols that guarantee everyone a chance to express her/his position and assure the majority the chance to deliberate;
- Certified Citizen Consultation to poll participants, who choose among alternatives that have come
 out in earlier deliberation.

It is worth noting that the latter two tools were already present in the original design of Deliberative Community Networks (De Cindio, De Marco, Grew, 2007), while the former comes from our www.ComunaliMlano2006.it experience and has its theoretical grounding in (Fishkin and Luskin, 2005) and (Winkler, 2007), for example.

• 3.1 The Agenda to manage deliberative processes

The Agenda tool is designed for outlining and managing a deliberative process, as well as for coordinating all the deliberation tools associated with a certain stage of the process. An Agenda is bound to each deliberative process: the organizers help the system administrator configure the deliberative process, i.e.:

- locate it on the map (where it is represented by a big blue balloon);
- design deliberative workflow phases;
- configure each stage by selecting the appropriate deliberative tool and specifying its:
 - i) timing, i.e. start and end dates;
 - ii) dependencies: two or more stages in the deliberation process can be parallel (i.e. independent) or sequential, if the start of one stage is tied to the end of another;
 - iii) actors, i.e. who takes part in that stage in what role (participant, facilitator, editor, etc.);
 - iv) initial issue frame, gathering material needed to start the activity, which may be the result of previous stages in the process, while other informational resources can be uploaded by authorized participants during this stage, so that these two sources combine to make up the information area of the given stage.

• 3.2 Informed Discussion

The Informed Discussion tool is an enriched forum with facilities for sharing information resources to support the discussion and for finalizing the discussion by producing, asynchronously and collaboratively, a summary document. When warranted, facilities for presenting the resultant proposals are also included. Every informed discussion is characterized by a debate phase (which involves all its participants) and a closing phase, where select participants collaborate to draft the summary document.

Thee debate phase may include one or more discussions: the opening message should clarify the specific topic and goal of the discussion. Discussions are managed as an *a priori* moderated forum. Information resources (documents, images, mp3, links to external web pages, and YouTube or Google videos) attached to messages are collected in the information area, which can also be enriched with uploads. People can rate posts and information resources, as in the CityMap, by assigning them a degree of consensus and of relevance.

The editing phase is performed by a selected group of participants, called editors, using a collaborative writing tool endowed with nearly the same features as a wiki. It supports document versioning with an option to retrieve and restore prior versions, if necessary.

The summary document is included in the public part of the information area (accessible to all participants in the deliberative process) along with information resources that can be useful for other

deliberative stages. This public information area constitutes the actual output of the informed discussion: if it has sequential stages, the document represents subsequent input.

• 3.3 Online Deliberation for structuring debate

The Online Deliberation tool structures synchronous online debate finalized to making decisions. It can be seen as an advanced chat where times and modes of interaction are organized by a set of business-meeting rules adopted to support a fair decision-making discussion. This tool is useful to support limited groups of people who have to work together synchronously on very specific issues or on bound domains. The idea and the design of this tool were heavily inspired by the earlier work of Doug Schuler and his team, who conceived and implemented e-Liberate (Schuler, 2008). E-Liberate adopts Robert's Rules of Order (Robert, 2000) as the basis for structuring online deliberative meetings, so that a basic property of democratic debate is fulfilled: the majority, if any, is guaranteed the chance to decide while the minority is guaranteed the right to express its opinions. However, after some test run using e-Liberate we deemed it necessary to introduce simplifications, both with respect to the original set of Robert's Rules and with respect to the rules included in e-Liberate. The main reason lay in the module's usability for unskilled users, as our e21 participants are.

As with e-Liberate, every meeting session is based on an *order of business* that contains all matters to be taken up. Each item is debated through a sequence of specific motions containing participants' proposals. Only one *main motion* at a time is allowed, and it may be elaborated through succeeding *secondary motions* (e.g. amend, vote, postpone, and the like). A participant must take the floor to make a motion, and requests to take the floor are managed with a FIFO queue. In order to make the online deliberation tool easier and more flexible to use – and following an application principle of Robert's Rules of Order – we have identified two subsets of motion: the first, simpler, is suited to participants who are less skilled and less familiar with Robert's Rules; the second is the complete set of rules that can be used in other cases. We therefore allow the administrator to configure the set of motions to apply when managing a meeting.

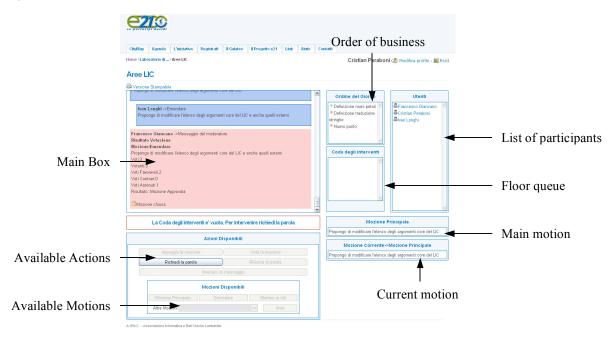


Figure 3 - The Online Deliberation interface

We have also introduced a new motion, called *free debate*, i.e., a simple chat (regulated by a queue for getting the floor) to allow unregulated debate among participants at certain moments in the meeting. Only the meeting chair is allowed to make this kind of motion. A standard configuration of the online deliberation tool supports three main roles: chair, participant, and observer.

Figure 3 shows the tool's user interface: the main box displays the discussion thread; the actions (*second a motion*, *vote on a motion*, *request* and *release the floor*) and the most commonly used motions (like *main motion*, *amend*, and *put to vote*) are immediately accessible in the "Available Actions" and "Available Motion" boxes (other motions are displayed in a combo box). Another box lists the meeting's participants; this same box is used in case there is no secret ballot on a motion, one vote per participant. Every participant always knows the current state of the meeting because the main motion and the motion currently on debate are displayed in dedicated boxes. Moreover, an info box guides participants in the use of the tool.

3.4 Certified Citizen Consultation

The Certified Citizen Consultation tool polls participants who choose among alternatives that have come out in earlier deliberation. Unlike the deliberative tools described above (where a qualitative dimension of deliberation is predominant), certified consultation is suitable when the opinion of a large number of people must be heard. It should be noted that, from a technical standpoint, this tool is essentially a voting tool. However this tool was designed and included in the deliberative platform to poll a set of participants (not necessarily all citizens but those participating in the deliberative process).

The certified consultation tool supplies a set of polling modalities: plurality voting (participants can choose only one alternative), approval voting (participants may vote for as many of the alternatives as they wish), cumulative voting (every participant has a fixed number of points to distribute among the alternatives or to assign to a single option), Borda count (participants are able to rank N alternatives by preference, assigning the first N points, the second N-1, and so forth). A participant may always abstain, the online equivalent of voting a blank ballot. A consultation may include one or more propositions, each with its own polling modality. The start and end dates determine the duration of consultation. Outside this time frame, propositions and results may be read but no voting is allowed.

Unlike most polling tools now available in the web, our Certified Citizen Consultation uses solutions developed for online voting to carry out *certified* citizen consultations, i.e., consultations that afford the following features: *democracy* (only eligible voters can participate), *uniqueness* (no one can cast more than one vote), *secrecy*⁴ (votes must remain secret and anonymous), *accuracy* (a voter's vote cannot be altered, duplicated or removed, without detection).

To meet these requirements, the consultation tool's architecture draws inspiration from technical underpinnings developed for the TruE-Vote project (van den Besselaar et al., 2003), as presented in (Bruschi et al., 2005). It essentially consists of three dedicated servers: namely *Registrar* (which manages eligible voters' authentication), *Forwarder* (which receives encrypted votes and dissociates votes from voters), and *Collector* (which gathers votes).

4. Field Experience and conclusions

The field study on the state of participation and e-participation in e21 partner municipalities we conducted from project kickoff in September 2006 through November 2007 was supplemented by meetings with public officials and politicians from each partner municipality (De Cindio, Gemini, Sartori, Sonnante,

⁴ This property is also known as privacy or anonymity.

2007). At the same time we undertook to specialize openDCN to meet the specific needs of the e21 project that emerged from the partner municipalities. In March 2007 we released the first software component, the CityMap. To instantiate the platform for the partner municipalities (all reachable from the project website http://www.progettoe21.it/) each municipality needed to prepare text to present the initiative by enunciating its 'participatory contract' with citizens, i.e., the mutual commitment between city government and the citizenry (which appears in one of the buttons of the topmost menu bar in Figure 1).

Here we came up against our first (serious) difficulties. Despite being committed, as subscribers to the Aalborg chart, to involving citizens in decisions affecting their territory, and despite being partners in the e21 consortium (both decisions had been taken with formal votes by the city governments and councils), their determination to pursue e21 activities was far less than one might have expected.

The first sites up and running were Sesto San Giovanni's and Como's: in both cases this was because of the forthcoming municipal elections scheduled for late May 2007. The outgoing administration wanted to have something online before the elections as a kind of placeholder for the upcoming administration. In both cases the governing coalition was re-elected but replaced the government member in charge of the project. Sesto San Giovanni left the project in November 2007. Como has still not recovered from the change, and its e21 website is now (one tear later, in May 2008) unchanged since May 2007. Desenzano and San Donato also held municipal elections in Spring 2007. In these cases the elections led to a change in governing coalition. In Desenzano it was not difficult to re-establish collaboration with the new city government in order to carry on e21 activities, while in San Donato all activity on the e21 project came to a halt. Only in January 2008, after hard work by the project team, was it possible to open the San Donato e21 site. This deplorable influence of elections (at any level, but especially municipal elections) on eparticipation projects is unfortunately typical of the Italian situation. Sadly, there is no way to avoid this. It was further confirmed by the situation in Brescia. Brescia had the most lively and interesting e21 site until October 2007, with the active participation of the city councilor in charge of traffic issues, who personally opened several interesting discussions. As the Spring 2008 municipal elections began to draw near, he seemed to shy from direct, open contact with the electorate. As a result the liveliness of the website immediately bore the brunt, as can be seen from trends for the Brescia site shown in Figures 4a, 4b, and 4c.

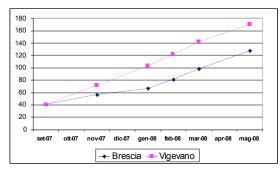


Figure 4.a - Registered participants

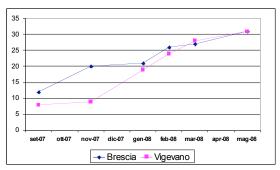
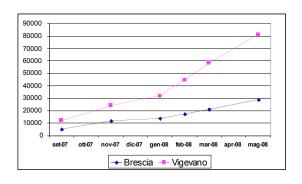


Figure 4.b – Number of discussions



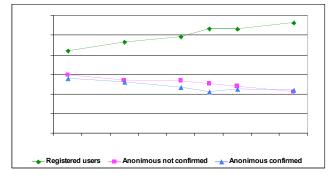


Figure 4.c – Number of readings

Figure 4.d – Trend of messages

Despite these (political) difficulties, community space, i.e., the CityMaps start to work as hoped. Figure 4 shows data gathered from the two most successful field experiments, Brescia and Vigevano: the number of registered participants (Figure 4a), the number of discussions (Figure 4b), and the number of postings read (Figure 4c) grow incrementally. Moreover, while the percentage of messages sent by unregistered users slowly decreases, the percentage of messages sent by registered users progressively increases: Figure 4d shows this trend in the case of Brescia. In the other municipalities, activity on the CityMap has also increased, though absolute numbers are still lower.

Brescia's and Vigevano's are the most successful e21 sites: in both cases this is largely due to effective public relations. Brescia made a serious effort to publicize the project, even organizing specific physical events. But the main reason for its (initial) success was the strong personal commitment of the council member in charge of traffic mentioned above, who wrote several messages on the e21 CityMap. Vigevano had the best online publicity through a very attractive link to the e21 site (which says: 'Online Participation') prominently displayed on the municipal website homepage.

Of utmost interest is the case of San Donato. As noted above, the e21 site has been operative for a very short time (since January 2008) but in one month it became the third most successful e21 site. This is due to the fact that in San Donato a community network has existed since 1996, called RecSando (www.recsando.it) and managed by a citizens' association. The relationship between RecSando and the city government has seen ups an downs over the years, but RecSando has managed to nurture a culture and practice of civic knowledge sharing and engagement. As soon as the e21 site was up, several members of the RecSando community used the new online environment to open a dialog (not free of controversy) with city administration.

To complete the picture, few words on our experiments with deliberation space are in order. All the municipalities have serious difficulties in identifying and actually beginning a deliberative process. Candidate participatory processes are often quite trivial, as they consist of a single informed discussion. None of the participatory processes identified so far now is an Agenda21 process. We, as project staff, envisage possibilities of undertaking a participatory process that, once presented to the municipality public officials and politicians, encounter hindrances which are not always well justified. The reasons for this are independent from the e-participation context. What is worth noting is that, , due to its design according to theoretical and empirical studies of generic participation processes. the e21 system is able to support all the potential participation processes now under the project attention.

The checkered panorama of partner municipalities demonstrates how tentative the political determination to involve citizens in actual participation projects (at level 3 of the classification in the Introduction) still is. Municipal governments still conceive of participation as listening, at most, to be carried out by collecting comments and opinions through the CityMap or through the Informed Discussion tool. They

also claim strong interest in certified citizen consultation, a listening tool applied to large numbers. However, the risk is that administrations plan to use this tool outside the deliberative process, as an evoting tool. This was the case in Vimercate, where the municipality proposed using the tool for *Consulta dei Giovani* (or "Youth Council") elections under the guise of an e21 participatory process. Technical limitations prevented fulfillment of this request, but, above all, it was not a deliberative process!

Acknowledgments

This work was partly developed under research project PRIN # 2006148797_002 "Soluzioni informatiche a supporto della cittadinanza digitale, della accountability democratica e dei processi deliberativi."

References

Bobbio, L., (2004). A più voci - Amministrazioni pubbliche, imprese, associazioni e cittadini nei processi decisionali inclusivi. Edizioni Scientifiche Italiane (in Italian).

Bruschi, D., Nai Fovino, I., and Lanzi, A. (2005). A Protocol for Anonymous and Accurate E-Polling. In Böhlen, M.; Gamper, J.; Polasek, W.; Wimmer, M.A. (eds.), *E-Government: Towards Electronic Democracy*, Springer, pp.112-121.

Caddy, J. and Vergez, C. (2001). Citizens as Partners: Information, Consultation and Public Participation in Policy-making. OECD Publishing, Paris.

De Cindio, F. (2004). The Role of Community Networks in Shaping the Network Society: Enabling People to Develop their Own Projects. D. Schuler and P. Day (eds.), *Shaping the Network Society: The New Role of Civil Society in Cyberspace*, MIT Press, Cambridge, Mass.

De Cindio F., De Marco A., and Grew P. (2007). Deliberative community networks for local governance. *Int. Journal of Technology, Policy and Management*, 7, 2 (2007), 108-121.

De Cindio F., De Marco A., and Ripamonti L.A. (2007). Enriching Community Networks by supporting Deliberation. In C. Steinfield, B.T. Pentland, M. Ackerman, N. Contractor (eds.), *Communities & Technology 2007*, Springer, pp. 395-418.

De Cindio, F., Ripamonti, L.A., and Di Loreto, I. (forthcoming). The Interplay Between the Actual and the Virtual citizenship in the Milan Community Network Experience. In Aurigi, A., De Cindio, F. (eds) *Augmented Urban Spaces: articulating the physical and electronic city*, Ashgate.

De Cindio, F., Gemini, G., Sartori, M., Sonnante, L. (2007). Analysis of the Local Agenda 21 processes, of ICT and -participation in the e21 municipalities. e21 project deliverable A1-A2, AIReC.

De Cindio, F., Gentile, O., Grew, P., & Redolfi, D. (2003). Community Networks: Rules of Behavior and Social Structure. *The Information Society*. Vol. 19(5) (pp. 395-406), November-December 2003.

Edward, A. (2006). Online Deliberative Policy Exercises and Styles of Citizenship: Issues of Democratic Design. Position paper presented at the *DEMOnet Workshop on eDeliberation Research* (Leeds, UK, October 16th, 2006).

Evans, B. and Theobald, K. (2003). Policy and Practice LASALA: Evaluating Local Agenda 21 in Europe. *Journal of Environmental Planning and Management*, 46(5): 781-794.

Fishkin, J.S. and Luskin, R.C. (2005). Experimenting with a Democratic Ideal: Deliberative Polling and Public Opinion. *Acta Politica*, 40(3): 284-298.

Ginsborg, P. (2006). La democrazia che non c'è. Einaudi, Turin (in Italian).

Ito, J. (2004). Emergent Democracy. In Ratcliffe, M. and Lebkowsky, J. (eds) *Extreme Democracy*. Online book available at http://extremedemocracy.com/ (accessed on February 14th, 2008).

Macintosh, A. (2006). Argument Maps to Support Deliberation. Position paper presented at the *DEMOnet Workshop on eDeliberation Research*, Leeds, UK, October 16th, 2006.

Macnaughton, G., (2004), *Seminar Report: eDemocracy*. European Commission eGovernment Unit, February 12-13, 2004, Brussels.

O'Reilly, T. (2005). *What is Web 2.0*. O'Reilly Radar blog, September 30, 2005 Retrieved on January 2008 from: http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html.

Regonini G. (2005). Paradossi della Democrazia Deliberativa. Stato e Mercato, 73 (in Italian).

Robert, H. M. III and others (2000). *Robert's Rules of Order Newly Revised*. 10th ed. Cambridge, Mass.: Perseus Publishing.

Schuler, D. (1996). New Community Networks - Wired for Change. ACM Press, New York.

Schuler, D. (2001). Cultivating society's civic intelligence: patterns for a new 'world brain'. *Journal of Information, Communication and Society*, 4(2).

Schuler, D. (2008). Online Deliberation In-the-Small and In-the-Large: Principles, Assertions, Experiments, and Objectives. In Davies, T. and Noveck, B. (Eds.) *Online Deliberation: Design, Research, and Practice*. Chicago: University of Chicago Press.

Sclavi, M. (2002). Avventure urbane. Milano, Eleuthera (in Italian).

van den Besselaar P., Oosteveen A.M., De Cindio F., Ferrazzi D., (2003). Experiments with e-voting technology: experiences and lessons. P. Cunningham et al. (eds.) *Building the Knowledge Economy: Issues, Applications, Case Studies*, IOS Press, 2003.

Vanderwal, T. (2005). *Explaining and Showing Broad and Narrow Folksonomies*. Vanderwal blog, February 21, 2005 Retrieved on February 2008 from http://www.vanderwal.net/random/entrysel.php?blog=1635

Wates, N. (2000). Community Planning Handbook. London: Earthscan.

Winkler, R. (2007). Online deliberation: Towards a research framework for the assessment of online debates. In: Avdic, A., Hedström, K., Rose, J., Grönlund, A. (Eds.) *Understanding eParticipation, Contemporary PhD eParticipation Studies in Europe*, Örebrö: University Library, 183-201.