

Telep@b Project: Towards a Model for eParticipation and a Case Study in Participatory Budgeting

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Abstract. eParticipation concerns the use of ICT tools for facilitating the two-way communication between governments and citizens. Designing eParticipation activities is a complex task. Challenges include the need of interdisciplinary expertise and knowledge (for example, political, sociology, usability and technology domains) and the lack of widely accepted models and standards. This paper attempts to provide a model for eParticipation, aiming at providing guidelines for the design, implementation and management of eParticipation applications. This model has been put into practice for the design of an eParticipation portal in the framework of the Telep@b project. We also report on the experimental use of the portal services in a group of Tuscany municipalities for supporting participatory budget activities and future activities in a follow-on project (PAAS_Telep@b project).

Keywords: eParticipation, ICT tools, participatory budget.

1 Introduction

Many governments around the world are promoting several initiatives in the e-Government domain, thus massively investing on information and communication technologies to ground public sector innovation.

Among several e-Government application domains, eParticipation is one which is recently emerging. As defined in [1]: “*Public participation is the process by which public concerns, needs, and values are incorporated into governmental and corporate decision making. It is two-way communication and interaction, with the overall goal of better decisions that are supported by the public*”.

Typically, public participation processes include actions for informing, involving and consulting citizens to provide an input to a specific stage of the democratic process.

eParticipation concerns the use of ICT tools for facilitating the two-way communication between governments and citizens. Designing eParticipation activities is a complex task. Challenges include the need of interdisciplinary expertise and knowledge (for example, political, sociology, usability and technology domains) and the lack of widely accepted models and standards.

The objective of this paper is to provide a model for eParticipation, aiming at providing guidelines for the design, implementation and management of eParticipation

applications. This model has been put into practice for the design of a eParticipation portal in the framework of the Telep@b project. We also report on the experimental use of the portal services in a group of Tuscany municipalities for supporting participatory budget activities.

2 Related Work

eParticipation is an emerging research field. In the last decade several research and innovation projects have been promoted by governments in order to experiment and put eParticipation into practice.

Conceptual modeling efforts have been done in order to provide guidelines and framework aiming at driving the design of eParticipation services.

Phang et al. in [2] provide a framework to support eParticipation designers in choosing appropriate ICT tools for participation initiatives to be supported during a policy-making process. eParticipation objectives are distinguished in: Information exchange, education and support-building, decision-making and input probing.

In [3] the authors propose a conceptual model of the eParticipation domain aiming at formalizing the relationships among organizational and social aspects of the participation process with ICT tools. The study includes the specification of three sub-domains and related interrelationships. The sub-domains are: main stakeholders and related roles, participation levels (e-informing, e-consulting, e-involving, e-collaborating and e-empowerment) and related ICT tools.

While the framework proposed by [2] aims at supporting the implementation of eParticipation initiatives, the contribution in [3] models more granular aspects (such as the stakeholders) but seems targeted for analyzing existing eParticipation projects rather than designing new ones.

For what regards eParticipation initiatives, several projects have been promoted at local, national and international level. For instance, at European level, European Citizen's Consultations (<http://www.european-citizens-consultations.eu/>) uses web tools to create a pan-european discussion space for debating about the future of the European Union, while "Your Voice in Europe" (<http://ec.europa.eu/yourvoice/>) is the European Commission's portal providing tools for consultation and discussion targeted to civil society representatives. At local level some relevant examples are AskBristol (<http://www.askbristol.com>), which is a web site promoted by the Bristol City Council to make citizens influence the municipality decision-making by means of e-petitions, forums and webcasting services. In Spain, Consensus (<http://www.consensus.cat>) is a citizens' e-Participation platform used by 73 Catalan municipalities with the aim of informing, consulting and allowing citizens' participation in decision-making processes.

A more exhaustive list of relevant eParticipation projects is presented in [4],[5],[2].

3 Model for eParticipation Application Design

The design of ICT services aiming at supporting the activation and management of eParticipation processes is a complex and interdisciplinary activity. As a matter of fact, an eParticipation process may be considered as the result of the interweaving of two

processes, the policy process and the participation process, exploiting both off-line and on-line participation activities.

A typical policy-making process can be distinguished into the following phases: agenda setting, policy formulation, policy adoption and implementation, and policy evaluation [6]. A participation process can be made of different activities:

- Information/education: institutional communication and education/training activities needed to inform citizens about the subjects of participation process.
- Discussion: citizens debate and exchange opinions on the subjects of the participation process or share ideas and concerns on open themes.
- Consultation: citizens are asked to express their opinions on a set of issues.
- Memory: citizens are made aware of how participation process results have been taken into account in the policy-making process and are made capable of monitoring the implementation of the participation process results. Moreover, memory of completed participation processes should be conserved. For instance, a report documenting the most relevant intermediary and final results of completed participation processes might be produced and made available to citizens in order to encourage their involvement in future participation initiatives.

These activities are not necessarily related with this sequential order, even if some patterns may be defined for common use (e.g. information and discussion activities should be performed before a consultation).

A participation model defines the relationships between policy-making process stages and participation activities to be activated and supported during such stages. At present, several participation models have been studied and experimented in local, national and international eParticipation initiatives. In [7] the authors analyse several contributions in theories and implementation of eParticipation and propose a framework made of four basic “idealised” models of eDemocracy: the Liberal, the Deliberative, the Partisan, and the Direct. The framework is based on two main dimensions: agenda setting and decision making. The four models are obtained as different combinations of explicit/implicit roles assigned to citizens in these dimensions.

The model depicted in Fig. 1 extends this approach by providing a more granular classification of such dimensions.

The above mentioned participation activities may be effectively supported by means of ICT tools. Several studies on the definition of ICT tools for e-democracy have been performed. The DEMO-net project have provided a non-exhaustive framework for classifying eParticipation tools and projects [4]. These categories include ePetitions, eVoting, eConsultation systems, ePolling, community systems, GIS and Map-based tools.

Thus, a general method for designing eParticipation processes includes the following steps:

- a) identifying the objective and stages of a policy-making process which should be the target of the participation process
- b) associating the participation activities to the policy stages in order to define the participation model
- c) choose the ICT tools to be used to support participation activities in the different policy making stages.

These steps can be assigned to different actors. The first phase is usually performed by political representatives. Also the second one may be performed by political representatives, supported by domain experts, e.g. persons with expertise in the participation domain and/or persons which will tutor the participation process by mediating the citizens' access to the participation process (a "tutor" of the participation process). The third step could be profitably performed by the "tutor" or by an ICT designer.

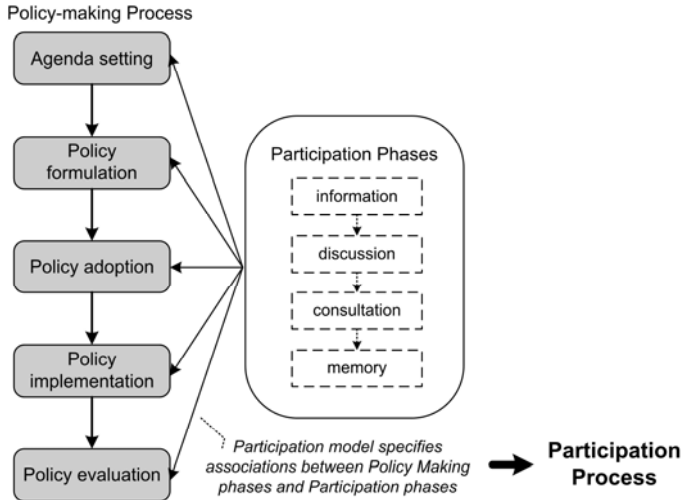


Fig. 1. Participation process

At present, most eParticipation service platforms are designed on top of existing or web-based Content Management Systems to specifically support a participation model but are hardly reconfigurable in order to support new participation processes.

In the followings we report on the activities of the Telep@b project for the design of a web-based framework aiming at facilitating the model-based design of eParticipation processes and its experimental use in a group of Tuscany municipalities for participatory budgeting.

4 Telep@b Project

The Telep@p (Electronic Technologies for the Participatory Budget) project is a 2-year project funded by the Italian Minister for innovation in public administration.

The project, concluded in July 2008, has been participated by 29 towns in different mountain areas of Tuscany, for approximately 200.000 inhabitants.

The aim of the project has been the development and experimentation of a technological platform facilitating the involvement of citizens in the process of budget formulation. The project results include a first release of a web-based portal for participatory process design and management. The portal services have been experimented for the activation of a 6-month participatory process for municipal budget formulation. Based on the results of Telep@b, a follow-on project has started in October 2008

(PAAS-Telep@b project). The aim of PAAS-Telep@b is to re-design and extend the existing portal by taking into account the results of the experimentation activities and integrating further access and dissemination means for promoting inclusion and participation.

Hereafter we describe the Telep@b portal's main features and the experimentation activities. Then, we introduce current research and development activities in the ongoing PAAS-Telep@p project.

4.1 Telep@b Portal

The Telep@b portal is a web-based framework integrating ICT modules to design and activate eParticipation processes according to the above mentioned model.

The project aims at promoting participation in the policy-making process related to budget formulation. The roles identified for this participation scenario are:

- citizens, as individuals or member of associations;
- representatives of the public administration (technical and/or political profile);
- tutor of the participation process;
- designer of the participation process.

The portal provides different views, according to user's roles:

- *administration view*: this view provides tutors and/or designers with basic administration services, including users' profiles and access roles management.
- *design view*: this view provides designers with services for modeling the participation process and its relation with policy-making stages, as depicted in Fig 1. Each participation activity is also associated with web-based services.
- *participation process view*: this view provides services enabling users (citizens and public administration representatives) to perform activities planned in the participation process.

More specifically, the designer view offers a drag&drop menu which guides the design of the participating process according to the following steps:

- a) select the policy-making stages which are the target of the participation process
- b) For each selected stage, assign the participation activities to be performed (i.e. information, discussion, consultation and memory)
- c) For each instantiated combination of policy-making stage and participation activity, select the services to be activated (e.g. agenda, news, forum, online polls) and information resources to be put in evidence to citizens. These information resources mainly include budgetary documents, i.e. documents which are used according to law and practice for the definition of the municipal annual budget.

Table 1 shows the list of services offered by the Telep@b framework. The design view associates participation activities with most appropriate services, according to the relations marked in Table 1.

Table 1. Telep@b services and participation activities

		PARTICIPATION ACTIVITIES				
		Information/ Institutional Communication (government to citizens)	Information/ Non- institutional communication (citizens to government)	Discussion	Consultation	Memory
Telep@b services	Web content publishing and management	X				
	News	X				
	Calendar	X				
	Newsletter	X				
	Document Management	X				
	Knowledge Management for Budgetary Documents	X				
	Mail to local administration representatives	X	X			
	Forum			X		
	On-line polls				X	
	Report generation tool	X				X
	Integration with social networking tools ¹	X	X			X

The participation process view instantiates the flow of activities specified in the design phase. At present the transition from an active stage to the following one is configured manually by the participation tutor.

4.1.1 Information Resources for the Budgetary Process

In order to support communication and information activities related to the budgetary process, the portal provides also services for budgetary document presentation, indexing, and retrieval.

Information resources which are considered relevant for the budget formulation process, according to the Italian legislation and practice, have been analysed in [8]. These information resources include:

- A) Documents for strategic planning: general plan; triennial budget; provisional and programmatic report; the public works triennial plan.
- B) Documents for operational planning: provisional and programmatic report for the 1st year; upcoming annual budget; annual public works list.
- C) Documents for executive planning: executive management plan.

Telep@b services for budgetary documents management are based on XML models which have been recognized as standard specification by Regione Toscana (see project SIFAL “Informative System On the Finance of Local Autonomies). These models for budgetary documents help identifying the main relevant formal-functional entries

¹ Feature to be developed in the PAAS_Telep@b Project.

in terms of “income” and “expenditure” and related areas of intervention (e.g. functions and services for expenditures). Functions and Services, which are defined as child elements of functions, help describing the town investment domain and have been selected as possible themes for structuring and guiding the participation process.

Based on the structured information models of budgetary documents, the Telep@b portal offers the following functions:

- uploading and browsing budgetary documents;
- help for navigation across budgetary documents based on semantic similarities and syntactic links among documents structured content;
- searching for single entries;
- for each entry, generating reports which aggregates information related to that entry and extracted from a set of budgetary documents.

More details on the Knowledge Management services provided by the Telep@b portal for the participation process and the implementation of the overall Telep@b portal (based on Joomla Content Management System) are provided in [8].

5 Experimentation Activities in Telep@b and Future Activities in the PAAS-Telep@b Project

The Telep@b portal is active since December 2007. At present, 24 municipalities have a participation web area in the Telep@b portal². These municipalities represent small towns with less than 15,000 inhabitants, located in disadvantaged geographical mountain areas of Tuscany.

Two towns have initiated and completed a participative process by using Telep@b services. Figure 2 is a snapshot of the Telep@b area dedicated to a municipality.

In each municipality the participation process is regulated by a participation policy. The policy is a document defining scope, thematic areas and subjects allowed to participate. It also defines the stages of the participation processes, resources to be spent for the activation and management of the participation process, initiatives and channels for dissemination and involvement of the population.

In the first phase of experimentation, concluded in July 2008, the users which have accessed the Telep@b portal services was approximately 1,7% of the municipality population. The percentage of population which actively used the portal for discussion was less than 0,5% of population in one town, while in the second municipality the discussion has moved in external online communities already used by citizens.

The tutors of participatory process used the portal design view to configure the participation web area, according to the model in Fig.1. They found this portal view useful but they complained the lack of pre-defined configuration patterns to be used and adapted in order to speed-up the configuration process and minimize mistakes.

² Public Administrations which at present have a Telep@b site are listed at the following web link: http://www.telepab.it/index.php?option=com_telepab&task=viewComuni&Itemid=49

The screenshot shows the telep@b portal for the Comune di Abbadia San Salvatore. The browser address bar displays 'http://www.abbadiasansalvatore.telepab.it/'. The page layout includes a navigation menu on the left with items like 'Home', 'Il Progetto', 'La partecipazione', and 'Il Telep@b'. The main content area features a central section with 'Ultimi Messaggi' and 'Documenti più scaricati'. A large announcement is displayed, stating 'L'assemblea del Telepab cambia le priorità' and 'La Partecipazione Democratica Decide di aiutare l'Abruzzo'. A calendar on the right shows the date April 15, 2009, highlighted. A login form is visible at the bottom right.

Fig. 2. Telep@b Portal for a Tuscany Public Administration

These elements have been considered in order to define the objectives of a follow-on project, named PAAS_Telep@b, started in October 2008. More specifically the objectives of PAAS_Telep@b are:

- to activate the Telep@b areas in further 35 Tuscan municipalities.
- to improve existing features of the Telep@b portal. More specifically, in order to match remarks emerged during the use of the system, one specific aim will be to make the design of the participation process more intuitive. This will be done by improving the presentation of the design view and by offering a set of predefined process templates which could represent some relevant examples of participation.
- to promote the involvement of a larger percentage of population, especially young and elder people.

The latter point is the most critical one. As a matter of fact, it has been widely recognized that government bodies find it difficult to make citizens access and discuss on political issues in their web sites [9]. More in general, participation to civic and politic activities in local communities is perceived as declining, due also to recent social and economic transformations (i.e. many people work and live in different places) [10].

Even if ICT technologies have proved to encourage and increase the amount of communication between people separated by physical distances, it is not yet clear how ICT and social network tools can increase citizens' involvement in the participation process.

Leveraging on the experiences of the participation processes activated in the Telep@b process and the remark that citizens tend to discuss issues in digital places that they are familiar with [11], the PAAS-Tele-p@b project will experiment the use of two complementary strategies to facilitate the involvement of population with different ages and attitudes towards ICT tools in the participation process.

First, the activation of the Telep@b areas in new municipalities will go with the activation of access nodes, named "Assisted Access Point to Services and Internet" (PAAS), across the territory of interested municipalities. PAAS is a community service initiative promoted and funded by Regione Toscana to facilitate the use of on-line government services. A PAAS is a sort of enhanced Internet Point which are free of charge and are run by qualified personnel assisting users in accessing e-services.

Second, the project will investigate the use of social networking tools. The aim is to leverage existing communities and/or ICT tools for community building in order to disseminate participation activities by sharing events notification and links to resources published on the Telep@b portal. The aim is thus to develop an application for linking the Telep@b portal to Facebook (via Facebook API) with the following objectives: on one side, to exploit municipality's Facebook accounts in order to disseminate participation events and activities across municipality's network members; on the other side, to enable Facebook users interested in the public sphere to receive and personalize the notification of participation events as well as to post and share comments on these notifications by using the social network services.

We chose Facebook because of its wide diffusion (at the end of 2008 there were 4 millions active accounts in Italy, which has a total of 60 millions of inhabitants).

An aspect to be carefully evaluated in designing the application for integrating Telep@b with existing social networks will consist in finding the appropriate compromise between activities to be performed in external social networks and those to be performed in the Telep@b portal. The objective is thus to exploit existing social network communities for boosting involvement in participation, but without compromising the role of the Telep@b site (or in any case, the institutional site) as the digital place for participation processes. Otherwise, the risk of bridging external social networks is to disperse citizens' participation effort in different digital places.

6 Conclusions

This paper described a model for designing eParticipation processes as a result of weaving participation activities with policy-making stages and activating appropriate ICT tools and services. The model has been adopted for the design of a web-based portal, named Telep@b portal. The portal helps eParticipation designers in configuring and activating web-based services in relation with the appropriate participation activity, thus focusing on the participation model rather than on implementation details of the underlying web-based Content Management System.

The Portal services have been experimented in two Tuscany towns for budget-related participation activities. The design model for eParticipation have been experimented by participation tutors by using the Telep@b configuration services (design view). The approach has been positively evaluated, even if some remarks have been done on the design view ease-of-use. The low percentage of population actively involved in the eParticipation is the most critical aspect of such experimentation. Future activities planned in the PAAS_Telep@b project aims at offering a better support to the design model support by refining the configuration services and at increasing citizens participation by disseminating Assisted Access Points to Services and Internet (PAAS) in the local territory and by integrating the portal services with existing social networking tools.

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