Democratic Citizenship Community: an e-Democratic application

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Abstract: The 'Democratic Citizenship Community' (DCC) was specified based on an investigation of a Government-Citizen Interaction Model, oriented toward discussion and voting. The DCC search to guarantee the effectiveness of the e-Participation of the citizens in the consultative and deliberative processes through the following components: a profile of citizens, the register of the popular representatives and/or demands, a component for debate, linked to a library of information, a space of socialization, a component for voting and another one for deliberation. The components of the DCC have distinct functionalities. The Debate, by methods of manifestation, is organized as proposed in the DemIL that separates the opinions in "agree" and "not agree", with the respective justifications. A stated period is settled for the summarized presentation of the final results for region/thematic, managed by the moderator. After this phase the members are stimulated to vote, in determined turns, and the results will be tuned available in the deliberation environment. By another way, the Degree of Maturity Method (DMM) is used to evaluate the DCC. The effectiveness of the decision-making process in the DCC will be measured through the analysis of the data remover from the environment. With the use of techniques of observation and statistics of use are investigated some metrics as specified in the DMM. This system has already been introduced in Universidade Federal Fluminense (Rio de Janeiro - Brazil) and in Universidade de Coimbra (Coimbra - Portugal). We believe that the transferability to other countries, with different cultural backgrounds, it is possible and need to be discussed. This position paper ends with suggestions and challenges for enhanced participation in e-Democratic environments.

Keywords: e-Democracy, deliberation, community participation, decision-making.

1 Introduction

Electronic democracy (e-Democracy) can promote discussion on specific subjects or issues or helping decision-making between the citizens and the government. It means that the citizens reflect on social conditions and express their opinions in ongoing discussions by the use of the technologies [7]. Thus, introducing an opinion

consultation tool does not imply success through effective user participation. Generally speaking, the first step is to hold a public consultation to discuss relevant topic(s) concerning the stakeholders. Then deliberative voting can be used to help in decision-making that is, everyone involved is entitled to vote. Through these different stages, both consultative and deliberative processes consolidate.

Many countries have adopted various methods to promote citizen participation in decision-making [6]. In Brazil, direct manifestations of people's sovereignty include referendums, plebiscites and citizen initiatives. Other government entities in different fields, e.g. collegiate bodies in education, include small groups of representatives which are selected by a larger group in order to decide on specific matters.

Despite the various available applications in the Internet[4], generally speaking, consultative processes have taken place via e-mail, chat or discussion forums [2][5], although these can be present problems with regard to discussion structuring and information retrieval. And deliberation takes place separately through surveys often exploring general topics without generating a preliminary discussion of such topics. By another way, Virtual Communities (VC's) have been used at much finality [1]. Such communities make use of resources for interaction with between the users, making possible a diversification of actions. We believe that VC's are a successful alternative for interaction between the government and the citizens, as they are socially attractive [5] and support a participatory model for e-Democracy.

In this research, the focus problem is that in the real life when citizens are asked to participate in public consultations and deliberative processes, they individually receive information from different communication means (television, newspapers, Internet, among others). This process persists until the moment of voting. Thus, it is not possible to verify whether the individuals reached maturity in the decision-making process so as to ensure they are really exercising their role as citizens in the Web environment. By considering the set of problems and information collected, we believe that if the consultative and deliberative processes are integrated within the same communication means (in this case, the Internet) it becomes possible to measure the Degree of Maturity in decision-making. We propose a Government-Citizen Interactive Model [3] that will facilitate and encourage the decision-making process between the government and the citizens and we experiments this in an environment 'Democratic Citizenship Community' (DCC). This system has already been introduced in Universidade Federal Fluminense (Rio de Janeiro - Brazil) and in Universidade de Coimbra (Coimbra - Portugal).

2 Degree of Maturity Method

To measure the Degree of Maturity (DM) in the decision-making in consultation and deliberative processes it has as argument, according to Y = f (DM), the indicators set of the method for decision-making, namely:

DM = {Int_Part;Part_Discussion;Part_Decision;Part_Gen;Satisfaction}

Where:
Int_Part - registration, candidacy as moderator;
Part_Discussion – number of postings in the discussion by topic (pro and against), number of valid justifications posted in the discussion, performance of moderator;

Part_Decision - participation in voting;
Part_Gen - participation in the entire process, used of other spaces, respect the use rules, trust; number of invalid justifications posted in the discussion;
Satisfaction - it represents the satisfaction degree of the user.

The counting process of the data is uniform, and to each task executed in the DCC it attributes one point, as specified in a formula. The probabilistic sample is formed by thematic groups pre-established in the model. With the use of techniques of observation and statistics of use will be investigated some indicators, which ones have a name, a specific purpose in question form, an application method, a measure and a formula and a data source. At last, through a questionnaire available in the environment, the satisfaction of the participants will be measured. The variable associated with the indicators, as well as the way to measured them, is object of more studies afterwards, once that intends to consider other important principles, as for example, reputation. Through the application of the DM method also will be possible to infer statistically and to accomplish adjustment the measures. The classes groups of initially proposed for the DM Method are show in the Table 1, below.

Table 1: Classes Group in DM Method

Class	Description
1. Immature	Interest in participation and/or moderation, however without posterior interest in the deliberative process. Indirectly, it shows the interest of a given public in a certain theme proposition.
2. Poorly Mature	A participatory consultative process that involves an interest in discussion rather than necessarily in voting.
3. Mature	A participatory deliberative process that involves an interest in voting rather than in discussion.
4. Sufficiently Mature	A participatory process, effective and deliberative, whereby the citizen participates in all activities, with a minimum frequency. In general, have reciprocity between members, with information flow, with respect at use rules and trust between members.

3 The Government-Citizen Interactive Model and DCC

In this study we specify a Government-Citizen Interactive Model structured in phases [4], and we use DemIL [3], Democratic Interaction Language, the aim of which is to promote discussion and deliberation. The phases and activities proposed in this model are not exclusionary and may or may not be considered in the development of a Web environment for e-democratic purposes. In the Interactive Model, the modeling of electronic participation takes into account the characteristics of an audiovisual plan, seeking to explore a topic, the existence of a conflict, the definition of personages (citizens organized by community), a structure to engage in discussion, and a final technical plan, which constitutes the deliberation report. Through discussion we seek a consensus so as to allow informed voting. In this intermediate phase we use some characteristics of techniques for decision-making, e.g. Team Building techniques. For electronic voting, we use some characteristics identified in the format of Reality Shows, such as decision-making involving a model where two units come together and voting takes place after exploration of certain controversial issues and clarification of certain facts, before defining which are undergoing final voting.

We will go experiments this model in an environment 'Democratic Citizenship Community'. The DCC components are show in the Figure 1, below.
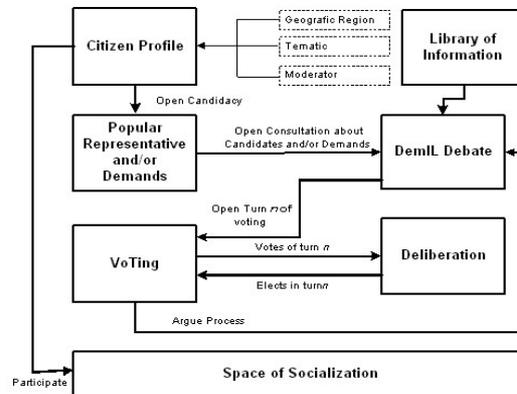
Fig. 1. Democratic Citizenship Community

The conception of DCC include[4]: analysis of domain and user[2]; requirements specifications; wireframes; modeling in WebML; implementation (current situation of this research); evaluation of the interface prototypes [2][5]; and DCC Case Study. We will briefly explain and shows some wireframes to follow.

With homepage the user can login to the DCC or register as a new user. The opening text informs: 'DCC is a place to discuss matters of common interest which supports voting. Get informed, post your opinion and help decide' (see Figure 2). After registering or logging in to the DCC, the user is directed to his/her Profile, which shows personal information in the form of a 'personal document', and time left before open discussions and voting close, all in an attempt to stimulate the citizen to participate. By using the 'Discussion' link the user can pick the demands (topics) he/she wants to discuss, in the relevant location, following theme propositions that are predefined by the administrator (see Figure 3). Once the desired demand is selected, the citizen decides on his/her final vote.

Fig. 2. DCC Homepage

Fig.3. Citizen Profile

4   Discussions

The main contributions in this research include: enhance participatory access by the citizens in e-democracy processes; provide an integrated means for consultation and voting, facilitating the exercise of citizenship by the citizens while securing transparency in the activities of government bodies; possibility to evaluate if maturity has been reached in the discussion of governmental issues as well as individual and

collective responsibility in decision-making; and provide a model for the creation of e-Democratic environments in the Web, adaptable to other devices and applications.

Research studies on ongoing VC's also add value by considering issues such as methods to inspect usability, accessibility and sociability; the moderator's role and the explanations of the power of this in the decision-making and citizen's reputation. The issues trust and security in e-Democracy, data-protection and privacy are essential to e-Government applications and deserve to be investigated afterwards. Other serious challenges are posed in the search for e-democracy, since the use of such system by millions of citizens (e.g. in a national discussions) highly increases the complexity of the model; it can be misused by influential groups or by activist politicians; the existence of ill-intentioned hackers and lurkings; and credibility should be ensured regarding the relevant information and voting.

The conception of a DCC for citizen interaction with governmental issues allows us to verify the effectiveness and continuation of an consultation and deliberative process in the Web, allowing us to assess citizen behaviour in the decision-making process. As this proposal has a democratic nature, we hope to discuss it with the scientific community.

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