Identifying discourse mistakes in web debates: moderation in the DCC

Cristiano Maciel
Universidade Federal do Mato Grosso
Instituto de Computação
Cuiabá, MT, Brazil
cmaciel@ufmt.br

Vinícius C. Pereira
Universidade Federal do Rio de Janeiro
Faculdade de Letras
Rio de Janeiro, RJ, Brazil
vinicius.carpe@yahoo.fr

Licínio Roque
Universidade de Coimbra
Departamento de Engenharia Informática
Coimbra, Portugal
lir@dei.uc.pt

Ana Cristina B. Garcia
Universidade Federal Fluminense
Instituto de Computação
Niterói, RJ, Brazil
bicharra@ic.uff.br

ABSTRACT
Integrating consultative and deliberative environments for popular participation in democratic issues and creating virtual communities make it possible to model decision-making processes. For this reason, the Democratic Citizenship Community (DCC) was developed, based on the Government-Citizen Interactive Model. In this model, debates are structured in a different manner and the moderator’s participation in debates is based on Discourse Theory, in relation to discourse mistakes. This research analyzes the moderator’s role by means of a case study.

Categories and Subject Descriptors
H.1.2 [User/Machine Systems]

General Terms
Design, Human Factors

Keywords
moderation; e-discourse; e-government; decision-making; virtual community

1. INTRODUCTION
Through electronic democracy it is possible to articulate citizens and government, promoting debates on an issue, a problem or a decision-making process. In general, public consultation for debating a specific issue among interested people is first launched. From time to time, in order to make a decision, there may be a deliberative vote in which everyone is allowed to vote. These different steps make up the consultative and deliberative processes. Generally, applications to these purposes are problematic [3]. One of these problems concerns the role ascribed to the moderator and, consequently, to his or her acting in environments projected with such intention.

This research uses the Government-Citizen Interactive Model [3], which represents the different phases in a consultative and deliberative process. In general, the process begins with the government (the administrator) defining the type of popular manifestation and activity schedule. For socializing citizens, we propose the creation of a Virtual Community (VC), structured according the type of manifestation, location and theme. This way, the model’s components are integrated, such as debate, voting, socialization space, digital library and user assistance. The debate phase, especially, requires a structure that permits discussing demands (topics to be debated on): registering opinions leads the citizen to justify his or her vote, indicating, furthermore, if his or her opinion goes against or for what is being discussed, or even if it is rather neutral. Justifications are thus classified and remain available for consultation. Eventually, citizens vote. The moderator’s existence and actions are also modeled and are the main focus of this paper. The case study is realized using the Democratic Citizenship Community (DCC) [4].

2. e-DISCOURSE
Virtual environments on the web, especially those in which a certain group interacts with a view to exchange information, require the presence of a member who is responsible for the moderating activity. This way, the electronic discourse (e-discourse) can achieve higher quality, mainly when it is a means for members to make decisions. The Discourse Analysis can be applied to study interaction in a VC [5]. According to these authors, the interaction among members and the moderators’ attitude can build a conversation structure. Moreover, they introduce the possibility of any member, even if not formally named a moderator, acting as one, in view of strategies to make the debate clearer, more cohesive and more coherent.

According to proposed in the Government-Citizen Interactive Model [2], the moderator can interfere, reacting to comments posted in the community, so as to help clarifying utterances, stimulating the debate and warranting the good usage of the environment. The moderator only interferes if it is necessary and he or she can justify his interference textually. Four types of interference to be employed by the moderator were proposed, based on the Discourse Theory [1], in relation to discourse mistakes: unclear opinion, inconsistent argumentation, excessive generalization and thematic deviation. In order to vouch for compliance to the terms of use, another type of interference was proposed: disrespect to the terms of use.

3. DCC APPLICATION
The DCC has interaction and communication resources, accessible by links in a tool bar, such as citizens’ profiles, debate (demands register and discussion), voting, information library, social space and users assistance [2][4]. The access to the system occurs at http://www.comunidadecdc.com.br/ (in Portuguese). The moderator responds to the opinions in debate by means of specific types of interference, when he identifies unclear opinions, inconsistent argumentation, excessive generalization, thematic deviation and term of use infraction. Explanations and examples about these types were added to the DCC help [2]. In the moderator’s view, there is a “Moderator bar”, which gives access

SAC’09, March 8-12, 2009, Honolulu, Hawaii, U.S.A.
Copyright 2009 ACM 978-1-60558-166-8/09/03...$5.00.
to the textual options of types of interference, listed for selection, and a field to justify it. See this view in the Figure 1.

**Figure 1. DCC – Moderator View**
The system administrator visualizes the DCC differently, since he has distinct functions, such as to allocate the moderators.

4. **CASE STUDY**

After implementing and, consequently, managing the DCC in a practical case, data were analyzed by means of usage statistics, with the aid of the analysis of logs registers in the administrator’s view, Google Analytics tool and a survey made with the participants in the end of the process, so as to verify their satisfaction regarding the DCC. This section briefly discuss this case study [2], focused on the moderators’ participation.

The sample was composed of volunteer undergraduate and graduate students of the universities involved in the research: UFF and UC. It applied to a consultative and deliberative process, according to interests of the institutions. Seventy-six individuals were interested in getting to know and taking part in the DCC, fulfilling the enrollment form. The participants’ average age is 30 years old; 88% are students; the remaining are teachers.

Nine issues were suggested by 8 different users to be discussed in relation to the themes registered in the system. Registered demands (with the respective acronyms) and opinion posts for each of them are presented in Table 1.

<table>
<thead>
<tr>
<th>Demand’s title</th>
<th>ID</th>
<th>Posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space of socialization for students</td>
<td>D1</td>
<td>22</td>
</tr>
<tr>
<td>Reciprocity in Europeans’ deportation</td>
<td>D2</td>
<td>19</td>
</tr>
<tr>
<td>Academic publishing</td>
<td>D3</td>
<td>9</td>
</tr>
<tr>
<td>Support to access to higher education</td>
<td>D4</td>
<td>9</td>
</tr>
<tr>
<td>Is life during postgraduation?</td>
<td>D5</td>
<td>8</td>
</tr>
<tr>
<td>Distance Education: an democratic solution</td>
<td>D6</td>
<td>17</td>
</tr>
<tr>
<td>Compulsory voting</td>
<td>D7</td>
<td>14</td>
</tr>
<tr>
<td>Abortion – for or against?</td>
<td>D8</td>
<td>5</td>
</tr>
<tr>
<td>Good healthcare system should be for free</td>
<td>D9</td>
<td>2</td>
</tr>
</tbody>
</table>

Some comments can be articulated in relation to moderators’ participation, although this role has been hardly tested so far. As a whole, 13 posts were moderated. Demands D1 and D2 had two posts each, in which moderators made interferences of the «Unclear opinion» type, but these had no reply from the post authors. In D3, there was an interference of the «Excessive generalization» type, to which the author replied. Two posts were moderated in D7: one because of a «Thematic deviation»; the other, because of an «Inconsistent argumentation», but their authors did not react to the interferences.

The reaction to the moderators’ participation was investigated in other questions of the user satisfaction evaluation tool, once a differentiated moderation was proposed for the debates. For 86.7% of the users, moderators’ participation helped to stimulate the debate. On the other hand, 6.7% thought it was irrelevant and another 6.7% issued no opinion about it. Ninety percent agreed that the moderators’ participation helped keep the environment orderly, but 6.6% disagreed and 3.7% did not know what to say about it. A worrying question, due to the fact that it is an innovative proposal, was the use of the moderation categories, which were satisfactory for 73.4% of the users, but dissatisfaction for 6.7%, whereas 20% had no opinion regarding the issue.

5. **DISCUSSIONS**

If, in different methods of participation that require physical presence, it is hard to preside over and motivate the debate, in a virtual environment, it is necessary to stimulate groups in a continuous and controlled manner, combining both interpersonal communication competences and technical and management competences. Thus, the role of the moderator is essential, and not identifying individuals with such capacities limits the application of the model.

Studying these techniques to interfere on members’ comments is innovative and it can be hard to be understood by moderators and users, especially if we consider the different educational levels of citizens. It is necessary to undergo further studies on the proposed textual categorization and on graphically representing (by means of icons) these types of interference. Another promising approach is the use of Semantic Web to represent this model.

6. **REFERENCES**