DocsLab: A Tool that Integrates Google Docs with Forum and Task Lists

Daniel Henrique Battistelo¹, Maria de Fátima Webber do Prado Lima²

¹ University of Caxias do Sul, Brazil, dbattistelo@gmail.com
² University of Caxias do Sul, Brazil, mfwplima@ucs.br

Abstract: Assuming that collaborative environments should provide an appropriate environment for collaborative documents production and not just a collaborative editor, this article presents a simple tool that adds some features of coordination, cooperation and communication to GoogleDocs. DocsCollab was integrated with Google Docs by linking the existing files on Google Docs for forums and creating tasks lists to the participants of collaborative editing.

Keywords: collaborative learning, networks, user groups, communication

1. Introduction

Collaboration is characterized as a social activity. There is a hierarchy linked to this process, where there should be a definition of how each collaborator interacts with others and what are their privileges and activities [1]. Within this process, it is important to be clear to all participants the goals to be achieved and their roles and responsibilities [2].

Writing is a collaborative process with multiple and complex issues that must be verified, but it still has many advantages. Fuks [3] says that a group may produce better results than an individual because of the different interpretations of the individuals. A group can identify inconsistencies and faults that one person alone cannot identify, and it helps to make decisions and create new and alternative ideas.

For collaborative writing to be properly supported, it is essential that publishers have collaborative mechanisms that allow formal and informal communication, so that the development of the document can evolve in a constructive and concise way [4]. However, these mechanisms should contain the minimum complexity in the learning process to work with the tool, so that the collaborator focus is not diverted from the main goal [5].
2. DocsCollab Tool

The DocsCollab Tool was developed taking into account some resources that help provide the management of collaborative writing such as forums and tasks. It provides resources for coordination, cooperation and communication with the differential of coupling the resources to each of these documents. This tool works in an integrated way with Google Docs.

2.1 Development

The application development was performed using the GWT (Google Web Toolkit) library, which allows us to write programs in Java and make the application available to the end user through an HTML page containing scripts in JavaScript. The HTML page provides a user interface that is more agile, rich and dynamic because the application interface is loaded only once, thus preventing the loading of different pages so that you can access the different screens of the application.

The resources provided by the tool are always loaded from the server, where the database and the HTTP servers are running. To load these data, the client application uses the GWT PRC (Google Web Toolkit Remote Procedure Call).

2.2 Resources

The system access is done through an username and a password on Google services. DocsCollab uses the same user validation process as the GoogleDocsOnce the user is validated, the tool uses the API for integration offered by Google to get the list of documents (texts, spreadsheets, presentations or others) from the logged user. The documents are displayed to the user using the same structure of directories as in the Google Docs.

Messages that are created in the forum must always be linked to a document. In this case, the user must first selects a document and then creates a message. A forum was also developed to organize the messages in a structure of topics. Users can, for example, create such topics as the chapters within the present document. Once the desired topic is created, messages can be linked to this topic.

Like the messages in the forum, the tasks are also linked to the documents. The user must select the desired document in the user panel to create the task. In the creation of the task, besides entering the title, the task description and the delivery date, one or more users can be selected to be responsible for the completion of this task. Once created, the task panel appears for those users. Every responsible
has to mark the task as completed. Only after all responsible users have marked, the task is considered fully completed.

3. Conclusions

DocsCollab extends Google Docs by offering a more complete collaboration environment where some resources for communication, cooperation, and coordination are bound to each corresponding document.

The features developed in this work could be extended to other collaborative software. For future work, a tool for planning activities and an schedule for the team can be implemented. In addition, the tasks or messages of the forum can have links to a particular section in the document, facilitating the work group.

References