e-Collaboration and Knowledge Sharing based on Text Notes

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Abstract

In this paper we describe a solution for eColaboration and knowledge sharing based on text notes entered by a user. Theory, implementation and use of such system – EMBET is described. The key idea is that a user enters notes in a particular situation/context, which can be detected by the computer. Such notes are later displayed to other or the same users in a similar situation/context. The context of user is detected from computerized tasks performed by user. Not all the detected context is relevant to the entered note and the system with user assistance needs to detect a relevant context based on the text of the note. The solution was used and evaluated in the Pellucid IST project and it is further developed in the K-Wf Grid IST project.

1. Introduction

The experience management solutions are focused on knowledge sharing and collaboration among users in organizations. A lot of companies have recognized knowledge and experience as the most valuable assets in their organization. Experience is something that is owned by people only, not obtainable by computer systems. Anyhow, according to the state of the art in the area we can a create experience management system, which will manage (not create) experience and will be able to capture, share and evaluate experience among users. We can understand experience through text notes entered by a user. Such form of experience is the most understandable for humans, but it can be grasped by a computer system, though only partially. A computer system needs to return experience in a relevant context. Thus we need to model the context of the environment and capture and store the context of each entered note. In this paper we describe such solution for the experience management based on text notes entered by users.

The key idea is that a user enters notes in a particular situation/context, which can be detected by the computer. Such notes are later displayed to other or the same users in a similar situation/context. The context of a user can be detected from many sources - received emails, a step in a business process or a workflow management system, used files or detection of other events performed in the computer. Not entire detected context is relevant to the entered note and the system with user's assistance needs to detect a relevant context based on the text of the note. The detection of the context is based on techniques such as indexing, semantic annotation or similarity of cases. In addition, the solution uses ranking and voting mechanisms for updating relevance of the text notes. The solution was used and evaluated in the Pellucid IST project and it is further developed in the K-Wf Grid IST project.

The main objective of the solution is to provide a simple and powerful experience management infrastructure, which can be applicable in many areas with users sharing and collaborating through experience. The idea is to return experience to users when they need it. Therefore it is crucially important to model and capture a user context and the described solution can be used only in applications where actions/tasks performed by a user are computerized and can be captured and reported to the system in the form of events.

2. Overview of the Approach