MATURE

Assuring Quality for Social Learning in Content Networks

Collaborative creation, improvement and retrieval of relevant and up-to-date knowledge artefacts to support work-integrated learning

Quality assurance is a key aspect for the acceptance of agile bottom-up processes for content development (which are highly beneficial to knowledge maturing). MATURE explores community-driven quality assurance within the context of career guidance organizations. Users need to have confidence that a document is appropriate for a particular context, including their current task and profile. The organization, on the other hand, is interested in tracking, assuring and contributing to the quality of artefacts and processes. This is achieved by providing (i) indicators for quality assurance, (ii) access to an overview of the knowledge base, and (iii) possibilities for gardening the knowledge base. The demonstrator is based on a MediaWiki for content creation and sharing, and provides a widget-based and platform independent user interface.

TECHNOLOGICAL APPROACH

Flexible widgets for work-integrated learning

Demonstrator 1 is based on a widget approach especially for supporting work-integrated learning based on a concrete use case. It is designed to combine web based information access and desktop integration for a seamless integration into the familiar work environment of the user. An underlying communication infrastructure allows for exchanging data and events between widgets in order to improve workflows and usability, and avoid media disruptions. For integration, we used the Widget-Server, a messaging environment of the KnowledgeBus specially developed for easily mashing up and integrating independent software.

OVERVIEW

Focussing on the content aspect

The focus of our work is on the informal side of work-integrated learning, specifically covering work processes of knowledge workers with learning as a by-product (Eraut, 2007). This enables a shift from the training perspective of the organisation to the learning perspective of the individual. The objective of the system is to actively support higher quality of knowledge work and to foster informal learning.
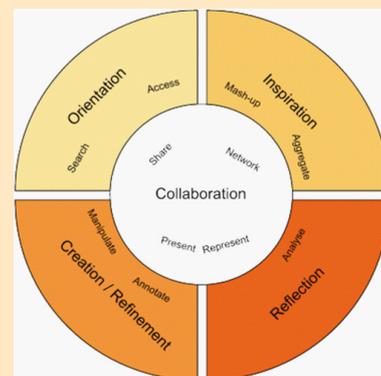
Due to the setting of this demonstrator its main focus is on content aspect of knowledge maturing. While it is clear that semantics, people and processes play an important role for ensuring quality, they are mainly seen in this demonstrator as enablers to ensure content quality.

Within this demonstrator we want to explore ways how to support the collaborative creation of high quality and reliable content-based knowledge artefacts in a self-organised way. The main focus of this demonstrator is on the first four phases of the knowledge maturing model model and provides functionalities supporting inspiration, orientation (what information is available and relevant), creation and refinement (of content and structure), reflection and collaboration.

We want to analyze how to support content creation from an early stage to high quality artefacts and which means are required to include semantics and people to do so. The first aspect is providing search support (e.g., search for knowledge artefacts related to a certain topic within social networks or in a unified way over various

information sources). The goal is not only to find these artefacts but also how to identify relevant ones in the context of the user's tasks. Another relevant question is how to let other user's benefit from the experience of another, therefore we will provide services to effectively manage relevant information sources and to discuss and share them with others.

Efficiency is a key goal of an organisation, which, as in this case, relates to the better reuse of existing knowledge and strives for collaborative improvement of the quality of already existing knowledge. In this respect we will mainly focus on:

- to share knowledge artefacts with others

- how to collect relevant knowledge artefacts

- how to stay up to date on certain topics that are of a knowledge worker's interest

- how knowledge workers can collaboratively support improving and highlighting the quality by rating and gardening of shared knowledge spaces and

- how to provide the knowledge worker with adequate information about the relevance of a knowledge artefact in her current work task.

To fulfill these requirements, the demonstrator offers these main functionalities:

- Collaboratively create and edit information (Wiki)

- Rate quality of existing information (web pages, …)

- Annotate information (web pages, …) with keywords (tags) to (re-)find this information later and share it with your colleagues

- Search for relevant information and access summary of knowledge artefact

- Discuss with colleagues to collaboratively improve quality and support sensemaking

- Create and export collections of information for a specific topic or purpose (web pages, pictures) as 'action plans'

- Keeping up to date by providing an overview of rcent and relevant changes in the knowledge base.
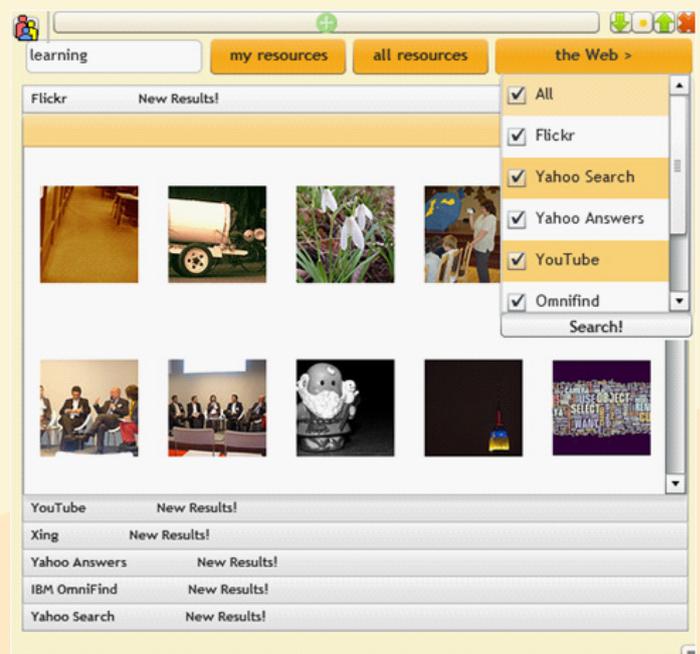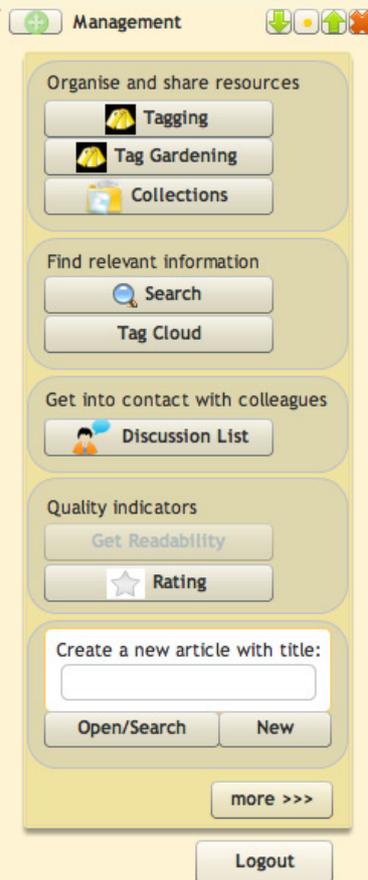
PARTICIPATORY DESIGN APPROACH
Involving users

This demonstrator was developed in close collaboration with application partners from career guidance sector dealing with Labour Market information. This concerns the design, the development, and the evaluation process. The particular proceeding was adopted from the participatory design approach (Bødker et al, 2004; Muller, 2007) which is strongly based on end-user involvement. End-users and stackholders participated in various stages of the process: the initial exploration to help defining the problem, during development to help focus on appropriate solutions, and the evaluation to provide feedback on the proposed prototype.

FEATURES

- Light-weight application that can be adopted to the personal need for specific functionalities as it is widget based

- Fosters knowledge and experience sharing in an easy manner

- Collaboration to ensure quality is a key characteristic (collaborative rating, bookmarking, generating and disseminating information sources)

- Provides guidance for knowledge gardening on a practitioner and management level

TECHOLOGY

The Widget Framework is based on Adobe Air, In addition, a Firefox plugin has been developed to support and capture the search process of the user. Communication between widgets of different users is handled by a Message Server in real-time.

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