

# LearnWeb2.0: Resource Sharing in Social Media

Fabian Abel, Ivana Marenzi, Wolfgang Nejdl, Sergej Zerr

L3S Research Center, Leibniz University Hannover, Germany  
{marenzi,zerr,abel,nejdl}@l3s.de

## 1 Introduction

Today's popular resource sharing systems such as YouTube, Flickr, or Delicious provide diverse types of content and do not focus on a particular domain such as education. Petrides et al. point out that there is a need for platforms, which allow for sharing of educational resources [1]. These platforms should permit the storage of resources of different formats [2]. Typically, though, different Web 2.0 infrastructures focus only on particular media types, e.g. videos in YouTube, pictures in Flickr, and bookmarks in Delicious, even if these resources belong to one and the same learning context. In this paper, we close this gap and present *LearnWeb2.0*, an elearning and competence development environment for sharing educational multimedia-based resources which are spread across the Web.

## 2 LearnWeb2.0 – System Description

LearnWeb2.0 is fully embedded into the network of existing popular Web 2.0 systems. Therewith, we are able to seamlessly integrate LearnWeb2.0 into the users' every day interactions with these systems [3]. Currently, LearnWeb2.0 integrates ten different Web 2.0 services such as YouTube, SlideShare, and Bloggers and provides various innovative features: (i) A personal learning space offering a rich set of functions and a seamless overview of the entire set of learning resources distributed across the various Web 2.0 repositories, (ii) sharing through *standing queries*, where users are notified whenever a new learning resource matches the query, (iii) collaborative aggregation of different learning resources via an intuitive drag-and-drop interface, (iv) integration of the user's social networks from different Web 2.0 services (Facebook, Delicious, Last.fm, and Flickr), and (v) provision of a (controlled) natural language interface, which enables users to control access to shared resources.

The LearnWeb2.0 Web platform provides a uniform interface to search for resources that are distributed across the ten integrated Web 2.0 services. Users can bookmark resources and collaboratively organize these bookmarks in groups as depicted in Fig. 1.a, which shows a group of educational resources about "MS Access". Further, via the LearnWeb2.0 browser plug-in (Fig. 1.b) users can simply drag-and-drop images, videos, text snippets, etc. from their desktop or from some Web site on the plug-in's icon to upload the resource to their favorite, appropriate Web 2.0 service and add it to LearnWeb2.0. Results of a questionnaire [3] and a user study that is currently conducted at Leibniz University Hannover confirm the ability of LearnWeb2.0 to support learners and educators in sharing, discovering, and managing Web 2.0 learning resources.

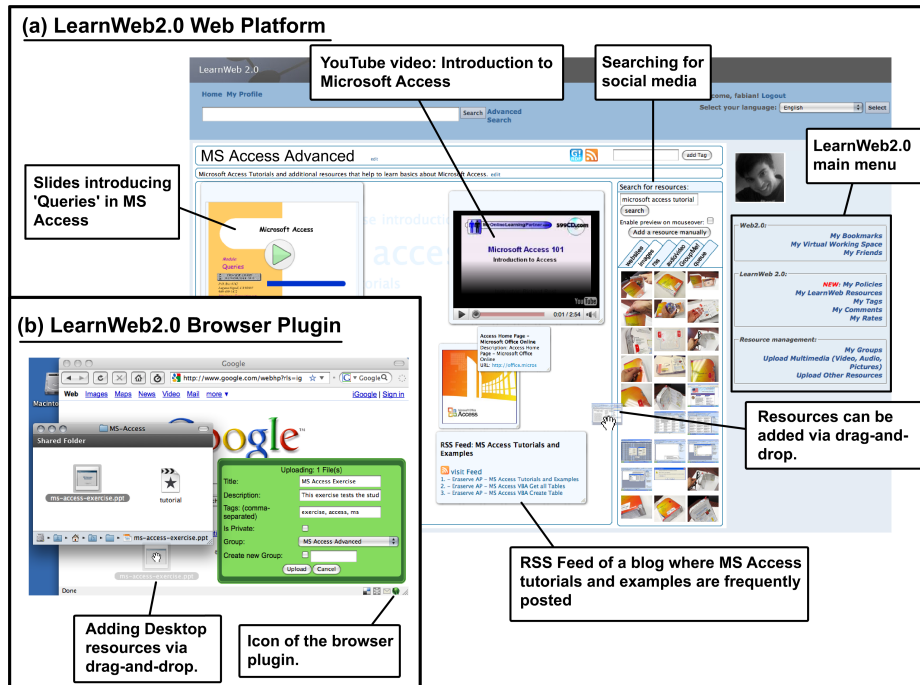


Fig. 1. (a) LearnWeb2.0 Web platform and (b) the LearnWeb2.0 browser plug-in, which allows resource upload via drag-and-drop.

### 3 Demonstration Overview

In this demonstration we will primarily show how LearnWeb2.0 works and how a user can employ it to efficiently develop her competences on the topic of interest. First, we demonstrate the personal learning space which integrates all Web 2.0 resources accessible to the user and enables retrieval, sharing and management of these resources. Next, we show how the aggregation of the user's social network can be exploited for collaborative competence development. Further, we demonstrate how educational resources already available at user's desktop can be uploaded using the drag-and-drop functionality of the LearnWeb2.0 browser plug-in. Finally, we demonstrate collaborative aggregation, annotation, rating and commenting resources to support efficient resource finding.

### References

1. Petrides, L., Nguyen, L., Kargliani, A., Jimes, C.: Open Educational Resources: Inquiring into Author Reuse Behaviors. In: Proc. of EC-TEL '08. (2008) 344–353
2. Rosenberg, M.: E-Learning: Strategies for Delivering Knowledge in the Digital Age. McGraw-Hill, NewYork (2001)
3. Abel, F., Marnzi, I., Nejd, W., Zerr, S.: Sharing Distributed Resources in LearnWeb2.0. In: Proc. of EC-TEL '09. (September 2009, to appear)