The integration of students' artifacts created with Web 2.0 tools into Moodle, blog, wiki, e-portfolio and Ning

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Motivation

- traditional learning (content) management systems are insufficiently student-centered and less flexible in design
- novel Web 2.0 tools provide a potential for more innovative and creative ways of teaching
- the use of Web 2.0 tools opens the opportunity for all participants in the education process to take part in the creation of the learning content and enables them more freedom to choose how to use the new forms of technological support for teaching and learning
- a problem may occur when students use one or more Web 2.0 tools to create a large number of artifacts that they are supposed to share with other students who are enrolled in a specific course
- the access to those artifacts may be difficult or complicated and this may negatively influence the potential for peer-to-peer learning within a study group

Integration with LMS 1/2

courses:

- Computer-Mediated Communication
- Organizational Communication

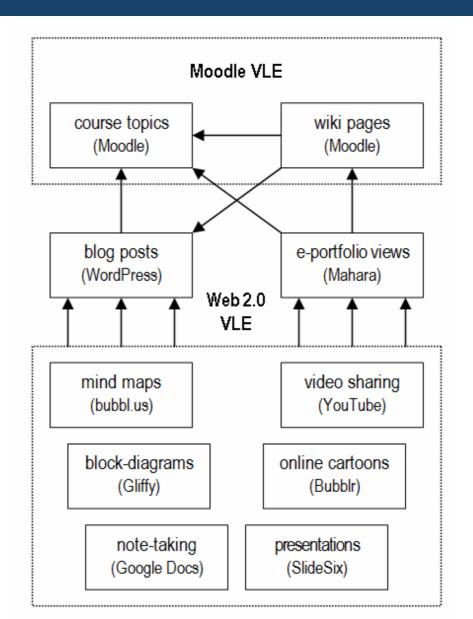
integration platform:

 Moodle with its built-in wiki tool and interoperability with Mahara eportfolio

students had to:

- perform projects and present them online either in form of blog posts or e-portfolio views
- illustrate their projects with artifacts created with Web 2.0 tools for mind mapping, block-diagrams, note-taking, video sharing, online cartoons, and online presentations
- place created artifacts in a blog post (WordPress) or e-portfolio (Mahara) view
- place links to posts or views in the Moodle VLE

Integration with LMS 2/2



Integration with blog 1/2

course:

- Computer-Mediated Communication
- integration platform:
 - WordPress blog system
- students were asked to:
 - keep a weekly diary of lectures in form of blog posts with a title that contained the date of the lecture
 - post their observations and fragments of lecture notes in their blog-based diary, and also to post other resources (photos, videos, web links, etc.) on a specific topic of a lecture
 - integrate the artifacts that they created with various Web 2.0 tools (including those for social bookmarking, creation of mind maps and block-diagrams, online note-taking and presentations, as well as mockups and mashups) in their blog posts
 - write an essay in their blog and illustrate it with created artifacts (at the end of semester)
- essays were used for both assessment purposes and peer-to-peer learning

Integration with blog 2/2

Dnevnik_11.01.2010.

Monday, January 11th, 2010

Predavanja i vježbe

Na današnjim vježbama radili smo web 2.0 MockFlow



i **Mockingbird**. Navedeni alati služe korisnicima kod izrade nacrta za oblikovanje korisničkog sučelja, odnosno mockup alata.

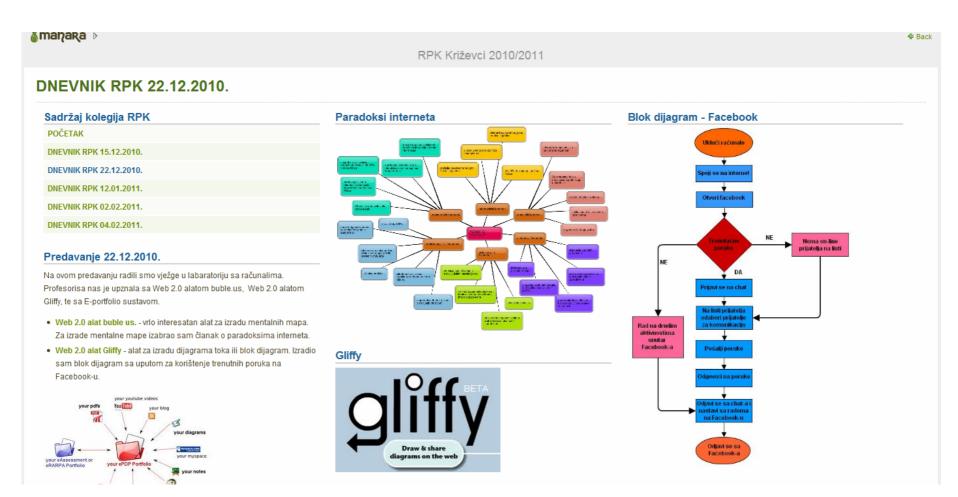


Integration with e-portfolio 1/2

courses:

- Computer-Mediated Communication
- Organizational Communication
- integration platform:
 - Mahara e-portfolio system
- by designing their e-portfolio profile page the students could make:
 - personal profile page for recording and presentation of student interest, accomplishments, qualifications, academic goals, and artifacts that they created during their study
 - electronic diary of student's activities in a specific course
 - web space for presentation of group projects
- the aim of use e-portfolio along with various Web 2.0 tools was to
 - encourage students' critical thinking skills
 - refine students' capability for evaluation of information collected from various sources
 - facilitate peer-to-peer learning

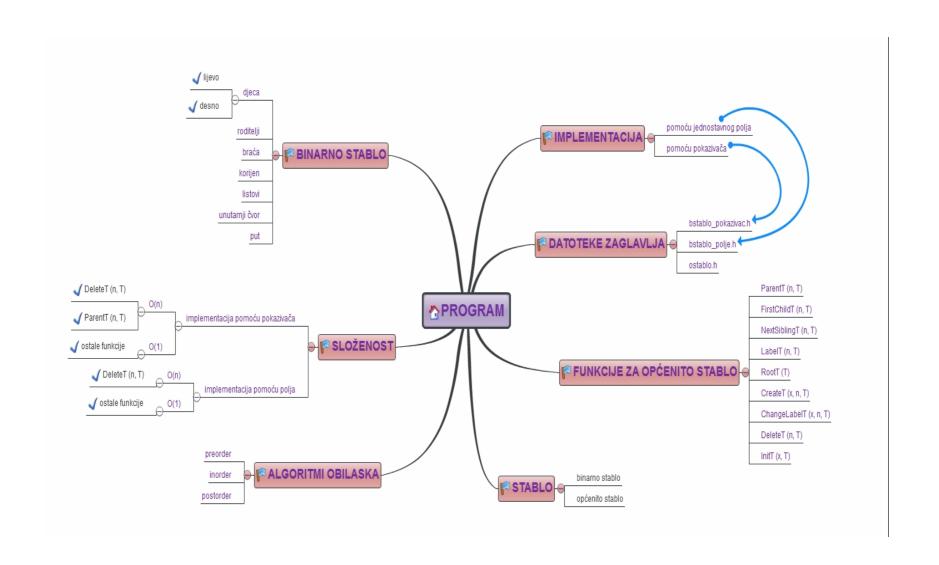
Integration with e-portfolio 2/2



Integration with wiki 1/2

- course:
 - Data Structures
- integration platform:
 - MediaWiki
- each assignment consisted of several different educational activities:
 - taking notes with one of tools for collaborative writing and extending notes into a mini-seminar
 - creating a list of online bookmarks that are closely related to the topic of their lab-based exercise and which were used during the making of mini-seminar
 - making mind map of a programming task and creating flowchart of a algorithmic solution
 - creating video podcast/screencast in which main parts of source code were narratively explained
 - publishing source code through one of the specialized social networks for collaborative programming
 - placing/linking all the aforementioned artifacts into wiki

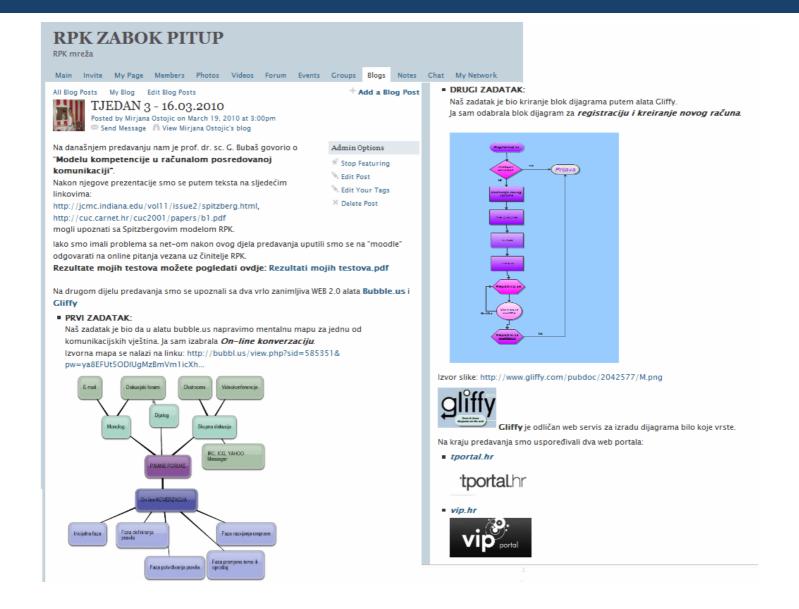
Integration with wiki 2/2



Integration with social network 1/2

- course:
 - Computer-Mediated Communication
- integration platform:
 - Ning
- students were asked to:
 - write blogs in form of a diary of the weekly course activity and also as a collection of the experiences and knowledge that they had gained through their course participation
 - integrate various digital artifacts (mind maps, block diagrams, presentations, surveys) in their blogs that were created with Web 2.0 tools as an assignment activity
 - communicate and collaborate with group mates

Integration with social network 2/2



Benefits of integration

- enables reflection and presentation of student work, assessment, and peer-to-peer learning
- stimulates creativity and responsibility in the creation of online content
- encourages students' critical thinking skills and refines their capability for evaluation of information collected from various sources
- stimulates the creation of social ties and more intensive student-to-student communication among colleagues
- increases exam pass rate and reduces the occurrence of plagiarism in learning tasks
- removes the need for classical classroom presentation of students' work

Recommendations 1/2

- because of security and privacy concerns, Moodle VLE or some other LMSs should be used as a starting point to PLEs
- for courses that are intended to create privately accessible content an *internal* wiki or blog functionality within the Moodle system could be used, as well as *inteoperability* (with a single sign-in) with a "closed" e-portfolio system Mahara
- an external wiki or a blog system is a more convenient solution when the intention is to enable public access to the artifacts that were created with Web 2.0 tools

Recommendations 2/2

- wiki (WordPress, Moodle wiki) is a convenient solution for content presentation and sharing when large student groups (50-200) attend a specific course
- the blog tool was found to be more suitable for moderately sized groups (30-100) because it enables a more personal approach for the students to create their online diaries of course lectures and presentation of online projects
- e-portfolio system (Mahara) was convenient for student groups of various size (20-200), but for larger groups (50+) it was best to combine e-portfolio views with presentation of project results that integrated Web 2.0 artifacts with the use of links to those views from wiki pages
- the Ning site for online communities was found to be best for small groups (20-50) of part-time students since it enabled them to share content and expertise, as well as get to know each other better

Conclusion

- use of Web 2.0 tools supports the novel forms of application of well known teaching paradigms like constructivism and project based learning
- integration of Web 2.0 artifacts within learning platforms like wiki, blog or e-portfolio creates an opportunity to advance from the top-down (instructor-to-student) dominated use of LMSs like Moodle to the creation of personal learning environments
- in PLEs, students are not merely consumers but also creators of the learning content and members of a learning network who can share knowledge throughout their learning community and also with the general public

Thank you!