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Educational Potentials of ePortfolio Systems: Student Evaluations of Mahara and Elgg

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- The use of an ePortfolio at the academic level can enrich e-learning and therefore such systems "...are used in distributed, blended and totally online learning programs and institutions" (Rubens et al., 2006)
- Electronic portfolios are the biggest innovation in educational technology since the introduction of course management systems (Lorenzo and Ittelson, 2005)
- The 2009 survey of the Campus Computing Project in the U.S.A. revealed that approx. 45-55% of four-year colleges or universities reported having an ePortfolio service on their campus website
- **In Croatia: only 3 universities reported active use of ePortfolio**

- 1. To comprehend the context in which an ePortfolio system will be introduced** in terms of the ePortfolio maturity model (Love et al., 2004) having in mind the diversity of ePortfolio features specific to the selected context.
- 2. To evaluate and compare two ePortfolio systems implemented in a hybrid course** based on the use of an ePortfolio evaluation questionnaire (Mahara, ELGG)
- 3. To choose the most suitable ePortfolio system** that will be used at the institutional level (Faculty of Organization and Informatics).

The research

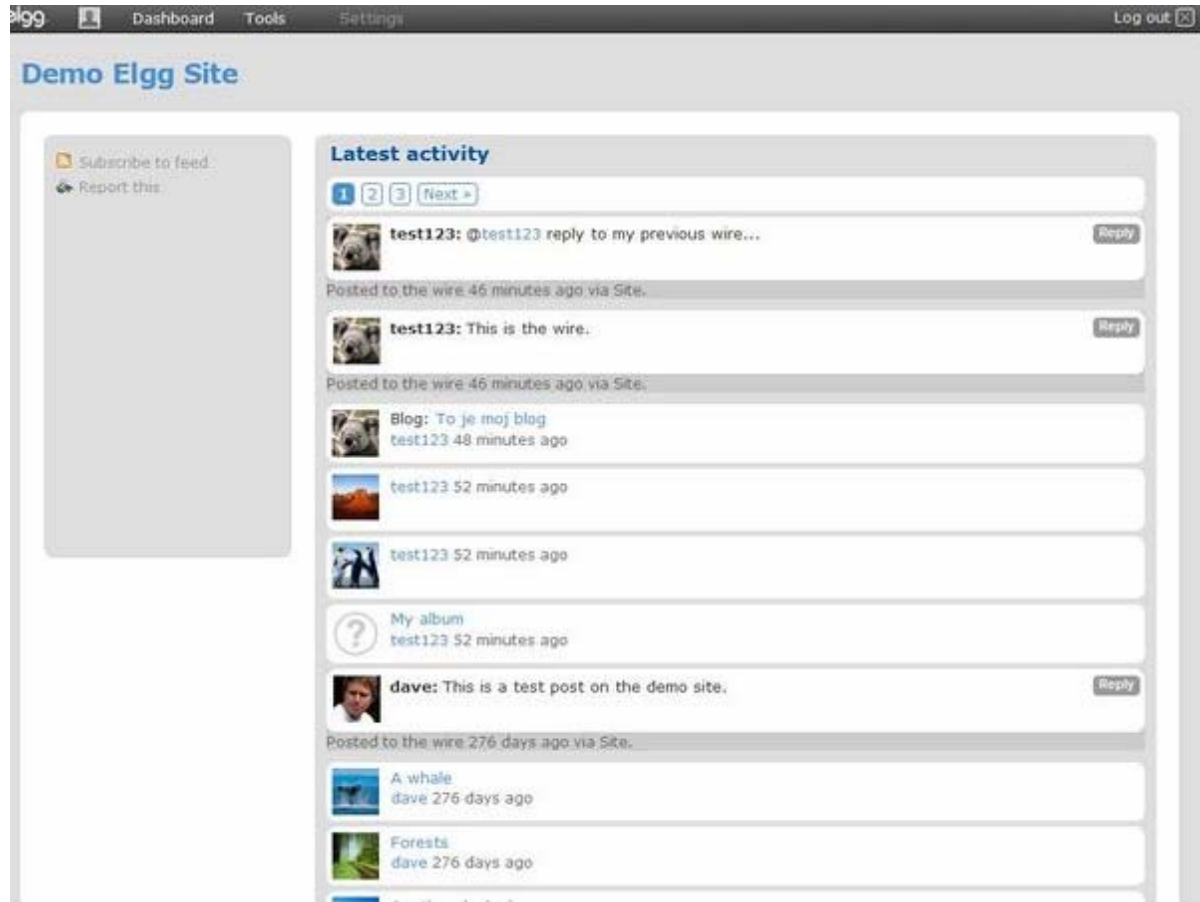
- **Mahara** (*ePortfolio system with some social software features*)

The screenshot displays the Mahara ePortfolio interface for user Igor Balaban. The top navigation bar includes 'Home', 'Profile', 'My Portfolio', 'Groups', 'Settings', and 'Logout'. Below this, a secondary menu shows 'My Views', 'My Files', 'My Blogs', 'Export', and 'Export Europass'. The main content area is titled 'My Views' and lists four portfolio items:

- My CV**: Description: 'A few things one should know about me.' Artefacts: Books and Publications, Certifications, Accreditati..., Cover Letter, Education History, Employment History, Igor, Interests, Personal Skills, Professional Memberships.
- Osvrti iz Informatike 2**: Description: 'Upute vezane uz izradu vaših osvrti za kolegij Informatiku 2 možete pronaći unutar ovog pogleda.' Tags: inf2.
- Osvrti iz Informatike 2 (2010)**: Description: 'Ovdje možete naći potrebne informacije vezane uz testiranje ePortfolio sustava na kolegiju Sigurnost IS.'
- Testiranje ePortfolio sustava**: Description: 'Ovdje možete naći potrebne informacije vezane uz testiranje ePortfolio sustava na kolegiju Sigurnost IS.'

Each item includes an 'Edit this View' link, a 'Delete this View' button, and 'Edit View access' information. The right sidebar shows the user's name 'Igor Balaban (ibalaban)', a profile picture, and a list of groups including SIS-01 through SIS-11, inf2-2009, inf2-2010, OPI_09, and PJP-09. Below the groups is an 'Online users' section showing 'Igor Balaban', 'Violeta Škvorc', and 'Mario Krizanović'. At the bottom, there is a 'Tags' section with 'ePortfolio_system', 'grupe', 'inf2', 'Inu', 'openoffice', 'plan_rada', 'Portfolio09', 'SIS08', 'test', and 'web2.0'.

- **Elgg** (*social networking platform with e-portfolio*)



- Preparing the context
 - Pilot-project of ePortfolio implementation
 - ePortfolio literature overview, case studies, our own experience with e-learning implementation strategy
 - Pedagogical use of ePortfolios
- ePortfolio evaluation survey
 - Consisted of items that were designed to:
 - find out more about ePortfolio possibilities in teaching and learning by its application in a specific hybrid course
 - enable the evaluation and comparison of both ePortfolio systems
 - 2 parts: 1. Statements of student impressions of the ePortfolio systems, 2. Statements related to ePortfolio application features

- Two studies:
 1. First half of the academic year 2008/2009, N=54
 - hybrid (blended learning) course entitled “Security of Information Systems”, 3rd year of undergraduate study
 - Two ePortfolio systems: ELGG and Mahara
 2. Second half of the academic year 2008/2009, N=172
 - hybrid university course “Informatics 2”
 - Evaluation of Mahara

Survey results

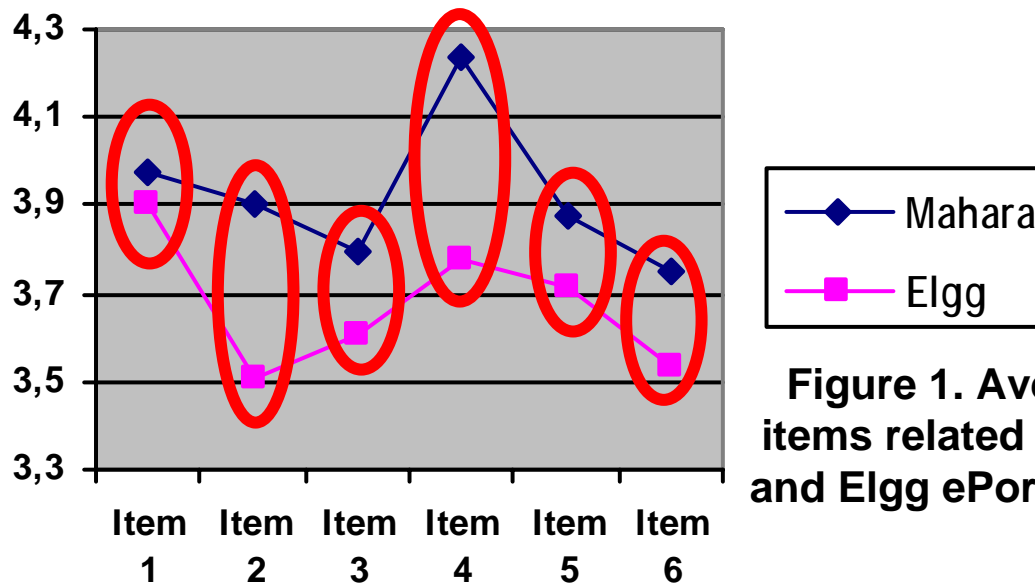


Figure 1. Average ratings of the survey items related to the usefulness of Mahara and Elgg ePortfolio systems (1-5 response scale; N=52)

- **Item no. 1:** I find working with the system to be useful
- **Item no. 2:** I find the possibility of comparing my results with those of other students to be a very useful feature of the system
- **Item no. 3:** The ePortfolio helps me to plan the content of my CV and to plan my further development
- **Item no. 4:** I find that I can use the ePortfolio to present my own competencies
- **Item no. 5:** The ePortfolio is the ideal system for presenting skills acquired in non-formal education
- **Item no. 6:** Using the ePortfolio enables me to present myself to the potential employer in a much better way

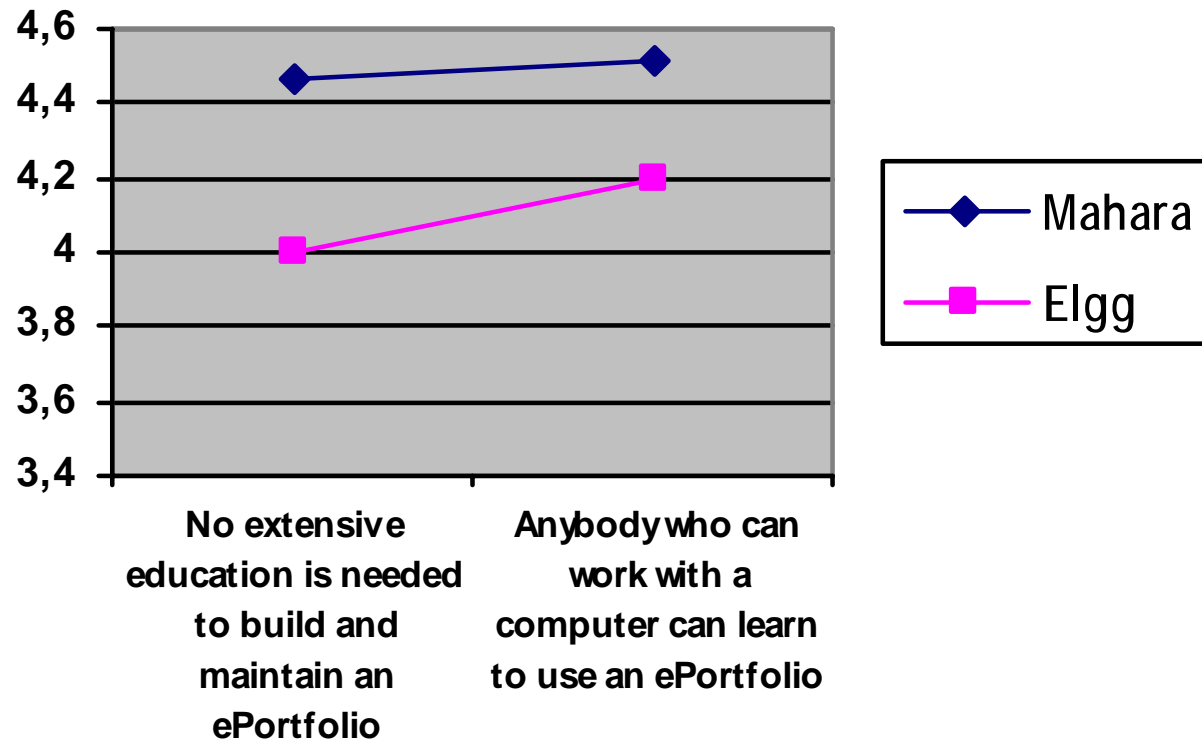


Figure 2. Average ratings of the survey items related to the effort that is needed to learn how to use Mahara and Elgg ePortfolio systems (1-5 response scale; N=52).

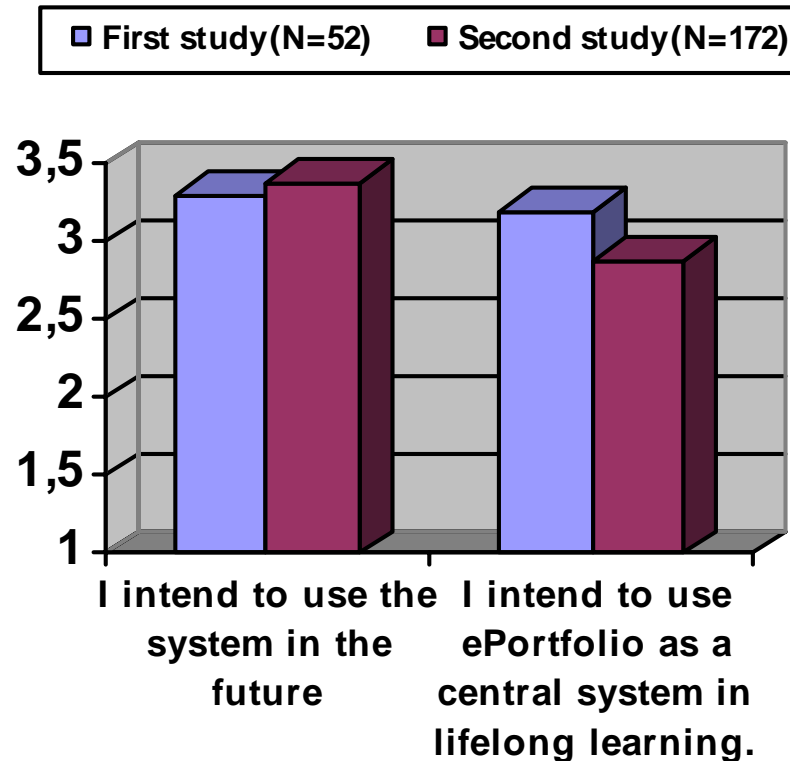


Figure 3. Average ratings of the survey items related to the intention to use the Mahara system in the future (1-5 response scale in the range from 1 – totally true to 5 – totally untrue).

- Mahara ePortfolio was...
 - *“...one of the best systems for presenting oneself as a person, as well as for presenting one’s personal skills and abilities to other people”*
 - *“...quick, reliable and effective system for creating one’s CV and for comparing personal results with the results of others”*
 - *“...even though it is used as a ‘serious’ system, it has the potential for students to add friends, post photographs, etc.”*

- ***The implementation*** of an attractive and functional ePortfolio system at an educational institution can have a ***motivational effect on both students and educators***
- It can also ***help students in defining their educational goals*** and ***facilitate assessment of student work***
- the type of use of an ePortfolio ***may be dependant on the maturity of students:***
 - The students in their first years of study may benefit more from the developmental and reflective use of an ePortfolio
 - The students who are in their final year(s) may be more interested in the showcase features of such systems

- Mahara outperformed Elgg mostly because of ***its simplicity and universality*** in terms of ePortfolio functionalities
- Mahara is currently being used by ***more than 400 students*** in several courses at the Faculty of Organization and Informatics
- According to our findings ***it is recommended to test 2-3 systems in actual educational settings*** regarding student satisfaction and system usability before an ePortfolio is implemented at the institutional level

Questions ?

Thank you for your attention!

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