

ePortfolio Pilot Project at the University of Vienna – Towards a Framework

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Abstract:

This paper will present the first draft of the University of Vienna ePortfolio framework which is closely interlinked with the university-wide eLearning strategy. Conceptually the aim of the framework is to bridge the gap(s) between different ePortfolio conceptualisations, integrate ePortfolio on a curricular level in the context of a university-wide community for knowledge production, and envision ePortfolio as a tool for quality development. To illustrate the direction Vienna University is taking in more detail, we will introduce a case, the media competence seminar, which implements a mini-curriculum using ePortfolio.

1 Towards an ePortfolio Framework for Vienna University

1.1 Goals and Context

In January 2007 the University of Vienna Centre for Teaching and Learning and faculty partners started the use of ePortfolio in five pilot implementations with the goal to develop an ePortfolio framework as part of the eLearning strategy, develop a guide to the curricular implementation of ePortfolio, and to extract more general model from the pilot cases. These results will be deliverables to the national ePortfolio project “*Modellfälle für Implementierungsstrategien für integrierte ePortfolios im tertiären Bildungsbereich*” (cases of implementation strategies for implemented ePortfolios in tertiary education) of the forum for new media *fnm-austria*, which will bundle the models, results, and different foci of five universities and an applied university (*Fachhochschule*) to generate a more general framework and collection of models (for details see <http://www.fnm-austria.at/ePortfolio/Start/>).

At the Vienna University Centre for Teaching and Learning the conceptual focus is on the curricular implementation of ePortfolio and the connexion to the eLearning strategy. The goals for the implementation of ePortfolios in the pilot cases are derived from performance indicators for the agreement on objectives between university and ministry for science and research (bm.w_f), the university development plan (*Entwicklungsplan Universität Wien 2010*), and the specific needs of the pilot partners. Four major goals have been identified:

- The use of ePortfolio to support critical study phases
- Decrease in drop-outs
- Enhancement of employability
- The support of inquiry-based teaching and learning.

An ePortfolio is seen as a methodological and technical instrument which, appropriate mentoring assumed, will help achieving those goals. ePortfolio will be used to support learners in developing an active approach to learning, help building subject specific as well as generic competencies, and thus enable them to take greater responsibilities in their individual learning processes.

1.2 ePortfolio framework of Vienna University

The ePortfolio concepts found in the literature are diverse and often even contradictory in their goals. The predominant conceptualisations are the *presentation portfolio*, *process portfolio*, and *assessment portfolio* (Barrett, 2005, Beetham, 2004). While the latter seems to be of little interest to a Continental European university culture - there is no tradition of standardised testing and thus no need of introducing ePortfolio as a tool for qualitative assessment, the two former concepts both offer promising traits. The presentation portfolio provides a space for the documentation of work and the representation of an individual's competencies. The process portfolio focuses on the reflection of the learning process with the aim to support deep learning (for a discussion on the notion deep learning see Biggs, 1999). At the intersection of both lies the reflection on the individual's competencies as a basis for taking stock of formal and informal learning processes and planning next steps. In the conceptualisations we see an inherent contradiction: while the language of competencies and the ability to present oneself serves the goal of employability, learning processes are deeply personal and require a protected space for the learner.

In the context of the universities' eLearning strategy we propose that the "presentation dimension" of ePortfolio can be more than an electronic *curriculum vitae* – within the semi-public space of an intra-university public, ePortfolios can become a potential crystallisation point for student participation in knowledge production. This view comes with the assumption that this expansion of the students' role from "knowledge consumers" to active participants in knowledge production must be based on active learning processes rooting in their learning biographies. By communicating competencies and products of learning to a community, student artefacts can not only be recognised by a broader audience and valued beyond grading, students can even be invited to be partners in knowledge production.

For an ePortfolio framework (for an overview, see table 1) we see four dimensions as relevant: personal competency planning, the learning process, knowledge representation, and infrastructure. When looking at those involved in an ePortfolio implementation at university, the individual learner will take on a different perspective from teachers, which will in turn have a different perspective from study programme directors, eLearning representatives, and other institutional bodies. Thus the organisational levels which have to be taken into account are the individual, courses and modules, and finally the curriculum and the institutional level. For each ePortfolio implementation a balance of must be found, which makes sense for the stakeholders involved at different institutional level.

For students an ePortfolio should provide the following qualities

- Personal competency planning: Offering support in reflection of individual abilities and goals.
- Support of the learning process: Fostering understanding and the active construction and production of knowledge, individually or with peers, supported by teachers and tutors
- Representation of knowledge and products: Providing and infrastructure for the documentation and representation of students' achievements
- The technical infrastructure: Providing a tool which is accepted

For students an ePortfolio should have the following qualities

- Personal competency planning: ePortfolio should support individual competency planning and reflection on competencies acquired in- and outside the university.
- Support of the learning process: Fostering understanding and the active construction of knowledge
- Representation of knowledge and products: Providing and infrastructure for the documentation and representation of students' achievements
- The technical infrastructure: Providing a tool which is accepted

	Individual (Learners)	Course- and Module level (Teachers)	Curriculum/ Institution (Study programme directors, eLearning representatives, other institutional bodies)
Competency planning	Meta-Reflection - individual competency planning Reflection of extra- curricular acquisition of competencies	Implementation of Meta-Reflection processes in courses and modules as a bracket to the curriculum	Curricular quality development processes
Learning processes	Active knowledge construction and production, individually, with peers, supported by teachers and tutors	Integration of ePortfolio with existing blended learning concepts; Cooperative knowledge production on course and module level	
Knowledge representat ion	Documentation of competencies, representation of results of work	Content base on module and curricular level	Interface to institutional knowledge processes
Infra- structure	Acceptance of ePortfolio- Software	Design of ePortfolio based on teaching- and learning concepts; Interface to LMS and other tools	Providing an ePortfolio tool; Interfaces to other central services: LMS, Digital Asset Management Systems and others

Tab. 1: A first draft of the ePortfolio framework for Vienna University. Relevant dimensions of ePortfolio are given in the first column, the levels of implementation in the top row, with roles in brackets.

For an implementation of ePortfolio on course – or module level the following points should be considered:

- Personal competency planning: The integration of meta-Reflection processes in courses and modules can be part of a bracket spanning the curriculum, helping students with orientation
- Support of the learning process: ePortfolio should be integrated with existing blended learning concepts in a way which does not increase teacher workload; ePortfolio can

be used to foster individual or cooperative knowledge production, because student work can be valued beyond the classroom

- Representation of knowledge and products: Cooperative knowledge production can contribute to the ongoing development of a curricular content base
- The technical infrastructure: The ePortfolio should be chosen and/or designed in a way which fits teaching and learning concepts as well as the media competencies of students and teachers. If a Learning Management System (LMS) is used, students should be able to easily navigate between different software tools.

From an institutional perspective the following points are relevant:

- Personal competency planning and support of the learning process: ePortfolio potentially provides an excellent basis for curricular quality development processes. Students' reflections on competencies and contents provide a valuable qualitative feedback on the quality and coherence of the curriculum
- Representation of knowledge and products: ePortfolio provides a potential interface between students' work and institutional knowledge processes
- The technical infrastructure: The institution must decide whether it provides an ePortfolio tool and interfaces to other central services such as the LMS, Digital Asset Management Systems and others

Currently five partners – faculties or study programmes - have started implementing ePortfolio into their curricula.

1.3 ePortfolio Pilot Partners

The intra-university partners for this pilot project have been chosen on the grounds that they are generally early adopters of eLearning and have developed and proven an affinity to new

Subject	Faculty/Centre	Bologna-cycle	Goals
Translation Studies	Centre for Translation Studies	BA	Enhancement of employability
Translation Studies	Centre for Translation Studies	Ph.D	Support of critical study phases
Mini-Curriculum “Media Competencies Seminar” (Centre for Teaching and Learning)	Centre for Translation Studies, Faculty for Computer Science, Faculty for Philosophy and Educational Sciences, Faculty for Social Sciences	BA and MA	Enhancement of employability
Sports Sciences	Centre for Sports Sciences and University Sports		Forthcoming
MEi:CogSci	Faculty for Philosophy and Educational Sciences	MA	Inquiry-based teaching and learning

Tab.2: ePortfolio pilot partners at Vienna University, Bologna cycle and goals.

media in the course of the implementation of the general eLearning strategy. Specifically, they have either derived a learning paradigm in concordance with the university paradigm of research-lead, competency-oriented, and eLearning-supported teaching and learning or they are using eLearning as means for quality development in teaching, and/or are participants in the “mini-curriculum” *Education for eTutors and Knowledge Experts* (working title). The nucleus of this programme is the Media Competencies Seminar which will be presented as a case below. An overview over the partners – subject, faculty, Bologna-cycle of the curriculum, and main goal for piloting ePortfolio is given in table 2.

2 Case: Media Competencies Seminar

The University of Vienna has a long and successful tradition in assignment of tutors. These tutors perform student teaching and learning support in small groups or assist the teachers during the courses.

In order to qualify these tutors in media and educational competencies, the Centre for Teaching and Learning provides an interdisciplinary seminar for tutors.

2.1 Structure and Aims

Composed of eight structurally and temporally interconnected modules and taught by even more teachers, the seminar implements a mini-curriculum which is bracketed by the integration of an ePortfolio with the focus on the support of the learning process.

Students should adopt the following competencies:

- Ability to handle new media such as web tools and social software like wikis, Learning Management Systems, etc.
- Ability in handling educational technologies
- Basic knowledge and understanding in learning theory and didactics
- Basic knowledge and understanding of copyright in eLearning settings
- Knowledge and understanding of group dynamic processes
- Sensitivity and awareness of gender and diversity issues
- Ability in moderating virtual and physical learning groups
- Ability to cultivate and support virtual and physical communities
- Ability to communicate across disciplines
- Ability to reflect on individual and group action
- Ability to participate in the cooperative construction of knowledge
- Ability to contextualize contents for ones own work

As there is no one-to-one relation between the contents of the eight modules and the competencies to be acquired, ePortfolio serves for contextualisation in two respects. First, it integrates contents across the different modules of the seminar, second it provides an interface between contents and personal experiences, supporting the students´ personal development. Thus, ePortfolio is to provide a golden thread through the seminar. For a visualisation of the seminar structure and ePortfolio integration see figure 1.

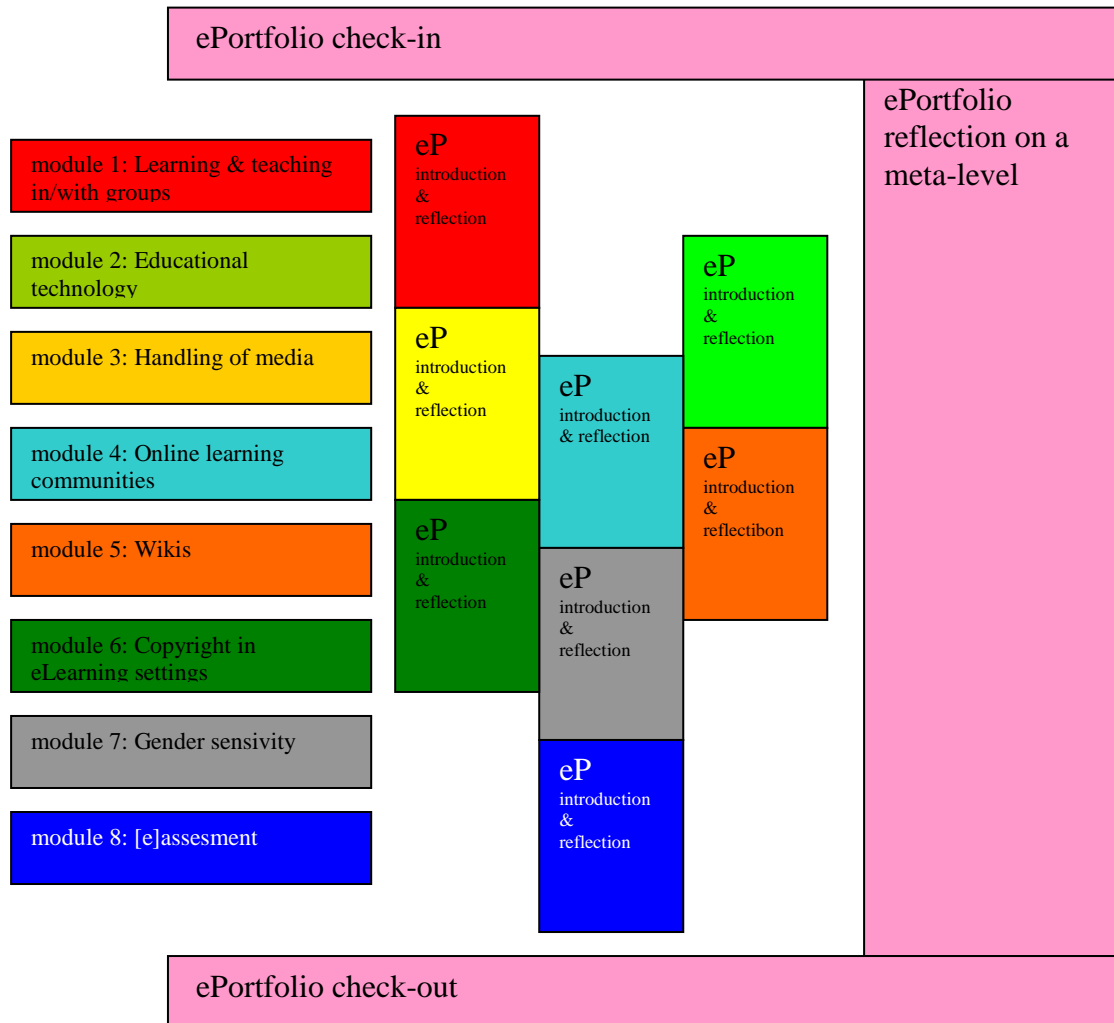


Fig. 1: The integration of ePortfolio into the Media Competencies seminar.

2.2 Implementation Details

As a software, the weblog-based community tool ELGG (<http://elgg.org/>) was used with some minor customisations. To the students tool and methodology was introduced in a three hour long face-to-face workshop at the beginning of the semester.

ePortfolio tools generally accept a variety of data formats such as audio, video and picture formats, however, text remains the predominant medium of expression. We thus view ePortfolio work to a large extent as a writing process.

According to the principles of free writing (Elbow, 1981), a creative writing technique used for this ePortfolio pilot case, the goal is to overcome barriers to express oneself in written form by simply encouraging the students to write a lot. In other words the students were not assessed for the quality or contents of their writing, but for their participation.

On the modular level we used circular, module specific questions asking the students to reflect their personal increase of achieved competencies on the contents covered. The tasks and questions were personally addressed to the students within the ePortfolio, and could be accessed and commented by colleagues if permitted by the student.

Based on the methodologies of free writing and question guided writing (Elbow, 1981), we devised a “Writing-Surveying-Writing Cycle” inquiring the individual knowledge and competencies on the module topic before and after it took place.

The first cycle aimed at students’ personal experiences in the field covered by the module (*storytelling writing*), followed by explicating prior knowledge and personal expectations of the particular module (*surveying writing*). After surveying the topic during class, students had to reflect and compare the effective change of knowledge with the former expectations (*reflective writing*). Personal contextualisation and integration on a curricular level was focused by creating a specific individual scenario concerning the modules topics (*integrative writing*). Selection of tasks and questions was performed according to the covered module content. Examples for each Question category are given in table 3.

Question category	Example Module	Example Task
Storytelling writing	Educational technologies & Learning Design	Remember a lecture in which you have “learned especially well”. Why do you remember this specific lecture? What was special?
Surveying writing	Learning & Teaching in/with Groups	Why do you believe, you are a good eTutor? What are your potentials? What do you still have to work out?
Reflective writing	Handling of Media	What did you take home from this module? What was new and interesting? What was boring or too complicated?
Integrative writing	Educational technologies & Learning Design	Remember a very bad lecture and describe what you would change to make it an extraordinary good lecture!

Tab. 3: Free writing techniques and typical questions used in the Media Competencies Seminar.

Students’ expectations on the whole course were inquired at the beginning and reflected at the end of the course through several feedback questions. In order to gain a systemic view of the interconnections of all achieved competencies on a supra-modular level an ePortfolio check-out workshop was conducted face-to-face in order to get the students’ feedback and to introduce the two final ePortfolio-tasks: a competency profile and the design of an own eTutor project involving the competencies gained.

2.3 Evaluation of the ePortfolio pilot

A thorough evaluation of this pilot was conducted, encompassing the following points:

- Competency gain by the students (and thus testing ePortfolio as a tool for quality development)
- Acceptance of the ePortfolio method employed
- Quantitative analysis of the student output
- Acceptance of the ePortfolio tool

The evaluation drew from the following elements:

- The ePortfolio postings of the students
- Verbal feedback in the face-to-face final workshop of the seminar

- Evaluation questionnaire
- Personal Competence Profile

2.3.1 Evaluation of competency gain

In order to evaluate the success of the seminar, the competencies acquired and reflected by the students were compared to the learning outcomes defined above.

First, generic competencies of the students were elicited through their intensive participation in the ePortfolio process, reflective discussions on the different module subjects and group processes. Second, students defined the generic competencies achieved in their competence-profiles explicitly concerning their possible application in their work as eTutors. In their own words, students distinguished clearly between so called “social” competencies and “specialised” competencies within their reflection and their competence profiles. See the most important competencies in listed students competence profiles and feedback in table (4).

Social Competencies	Specialised Competencies
*To handle interdisciplinary communication and work-processes. *Cooperative Teamwork Culture. Motivation of Communities, *Conscious detection and handling of group dynamic processes. *Gender sensibility.	*Didactical Methods (including ePortfolio). *Media-technical Competencies (including handling of different Software). *Competencies in Copyright. Competence to design Blended Learning Scenarios. Knowledge of eTutor Profile

Tabelle 4: This table contains the competencies named by the students; only competencies named at least three times are included. The asterisk indicates which competencies have been described by all students.

The ability to transfer the competencies gained into action was reflected in the very detailed project designs presented at the end of the course. We found it remarkable that in half of the cases the final task of the students resulted in a real life project starting next semester.

2.3.2 Acceptance and Quantitative results

Acceptance of the ePortfolio work was very high throughout the whole course in spite of the novelty of the method and the perceived additional workload. Even more, in the students’ feedback ePortfolio, as well as the creative writing technique *freewriting*, were reported to be new and useful reflective and didactical methods.

The acceptance indicated in the qualitative feedback is mirrored by the quantitative results. Most students outperformed the desired amount of writing, although the ePortfolio-work was only graded with respect to completion, not with respect to quantity or quality of content. Nearly all students (90%; n=10) completed each single ePortfolio task; only one student was missing the last task. The whole ePortfolio process included 10 different tasks, each consisting of several questions with a declared required textual amount of between 300 to 1000 characters, depending on the task-question. The total workload of ePortfolio expected was about 6.500 characters. This amount was highly exceeded by the students’ average text-production of 14.361 characters. The minimal amount was 7.522 characters, the maximal amount 20.391 characters. Furthermore a one-page competence-profile and the development of an eTutor-project design were demanded at the end of the course and have been submitted by all students but one (90%).

Additionally to this doubled textual workload, students made extensive use of the possibility to read and comment their colleagues' ePortfolio texts, and all students permitted the other students and teachers of the seminar to read their texts (except some feedback tasks). The offer by the teacher in charge of the ePortfolio to comment the ePortfolio texts occasionally was highly adored by the students, claiming a feedback for each written ePortfolio text. This indicates that ePortfolio was actually seen as much more than compulsory text work, it was embraced as a communicative and reflective process. Because the ePortfolio tool ELGG enabled only the author of the text to read comments on his or her writing, students transferred further communication processes to other functionalities of the Learning Management System used in the overall Blended Learning Scenario of the seminar.

2.3.3 Acceptance of the tool

The tool employed was not greeted with enthusiasm, but overall it was readily accepted. Criticism and suggestions were connected with the wish for more technical possibilities for communication and exchange, as well as the wish to present their ePortfolio to a broader public audience (the implementation of ELGG used was not publicly available).

Another student demand was the possibility of easy import and export of ePortfolio elements, and the wish for more possibilities to design the pages and edit texts. Although the low complexity of ELGG was already seen as demanding some media competencies by the students, a more complex ePortfolio tool, presenting the acquired functions could be considered for this Media Competencies Seminar, without threatening the grade of student acceptance.

2.4 Conclusion

The feedback to the use of ePortfolio in this case study, as well as the results of the whole seminar were overwhelmingly positive.

Overall, the students' feedback shows that the ePortfolio integration into the structure of the Media Competencies Seminar has fulfilled the expectations: The initial personal contextualisation of the module content and the encouragement to take a personal stance motivated students to adopt an active learning attitude. Embedding personal reflection in the communicative processes of the group was received as positive and stimulating. An additional deep integration of new and existing competencies was fostered through the task to develop real life scenarios.

By employing creative writing techniques, the students felt free to start up a communicative reflection process which was referred to as exceptional experiences. The integration of more creative writing techniques is considered for the future design of the ePortfolio integration of this seminar.

3 Summary

In this paper we introduced the first draft of the University of Vienna ePortfolio framework, which considers different dimensions of the many notions of ePortfolio from the point of view of different stakeholders within the university. First ePortfolio pilot implementations are currently under way. The case presented here has shown that ePortfolio can be deeply implemented into existing curricular structures, readily be accepted by students, and employed as an instrument for building as well as analysing new competencies, suggesting a strong link to quality development in teaching.

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