
CREATING A RESEARCH NETWORK FOR A SUCCESSFUL E-PORTFOLIO DESIGN AND IMPLEMENTATION

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Abstract: The presence of e-portfolios in educational centres, companies and administrations has emerged strongly during the last years by creating very different practices coming from different objectives and purposes. This situation has led researchers and practitioners to design and implement e-portfolios with little reference to previous knowledge of them; consequently, developments are disparate with many of the processes and dimensions used both in development and use being unnecessary complex. In order to minimize the inconveniences, unify these developmental processes and improve the results of implementation and use of e-portfolios, it seemed necessary to create a network of researchers, teachers and trainers coming from different universities and institutions of different kinds who are interested in the investigation and the practice of e-portfolios in Spain. Therefore, *The Network on e-portfolio* was created in 2006, funded by the Spanish Ministry of Education and led by the Universitat Oberta de Catalunya. Besides the goals associated with the creation of this network and which we wanted to share with other European researchers and experts of other continents, we will also present in this paper some data concerned with the first study carried out on the use of e-portfolios in our country that shows where we are and which trends are the most important for the near future.

Keywords: network, pedagogical design, assessment, competences

Contextual considerations for the creation of a network

There are a great diversity of typologies of e-portfolio (Kimball, 2002), but in spite of this diversity, the e-portfolio, in all cases, is an instrument that has, as a common goal, the selection of samples of excellent work or its improvements and the publication of evidence that shows the attainment of personal and professional objectives. All these artefacts organised and presented in a certain way allow for reflection on the different practices (Barberà, 2005). In this sense, the performance of each person who creates an e-portfolio is necessarily subject to self-evaluation and the external evaluation of others (Barberà, et al. 2006).

If we understand the reflection on one's own work or process as a skill that constitutes the axis of an e-portfolio together with the skills of analysis, structuring, anticipation and argumentation applied to the range of e-portfolio accomplishments, this justifies, cognitively and socially, the joint association of the members proposing the network.

After different experiences that UOC has developed around e-portfolios and to consider the need of collaboration between more practitioners and researchers, a group of professors decided to agree with other Spanish institutions to present a project –summer 2006- to the Spanish Ministry of Education in order to constitute the Network and work collaboratively.

Why create a network of researchers and education practitioners on e-portfolios?

The facts behind the creation of a network in such a new subject are multiple. It is mainly argued by the peak of the e-portfolio system in the sense that it looks for securing the most rational and ordered growth possible and by the utility it displays in very different fields of human activity. Apart from the

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intrinsic characteristics of the instrument for personal and collective goals, we mention two basic reasons for the creation of the NET:

- At this moment, e-portfolio practice is very fragmented since it is very incipient, but it is very remarkable and many resources are being invested in the creation of very local initiatives that should be made more extensive and shared in order to have a bigger impact,
- There is little or no presence of Spanish entities in academic and professional forums in the European framework in comparison with other neighbouring countries (i. e. France, Italy and England) and for this reason, a network could bring greater visibility to those initiatives that are being developed but which do not have a big enough presence to access or collaborate with others.

The arrangement and the rational growth of the e-portfolio system will take place within the framework of European initiatives that are being carried out like EIFEL (<http://www.eife-l.org/>) which is committed to an e-portfolio for all European citizens in 4 years (e-portfolio for all 2010).

What are the main goals of the network?

1. Carrying out a map of *e-portfolio* practices that includes most of the Spanish state (MAP).
2. Establishing the basis for a permanent observatory on *e-portfolio* initiatives that have been *carried out* and for the follow-up of *their* development, paying attention to different dimensions (goals, procedure, areas of development, *addressees*, costs, impact, etc) and reporting regularly (OBSERVATORY).
3. Designing an informative web page that gathers together accurate information and useful resources on the subject of *e-portfolios* to spread awareness of *its* potential uses and to provide instruments for the autonomous development of e-portfolios (WEB SITE).
4. Drawing up basic guidelines on the development and use of the *e-portfolio* for pairs of users and beneficiaries according to *their* field of application (student/professor; employee/employer; citizen/associations) (GUIDE).
5. Creating a prototype that contains the elements that constitute an e-portfolio (PROTOTYPE).
1. 6. Developing a line of innovation and shared research among the network's participants the goal of which should be the development of reflective *writing* within the framework of the elaboration of academic, professional and civil *e-portfolios* (LINE).
6. Holding conferences with foreign guests in which the different results of the net are *presented* and where formative *actions* are contemplated (CONFERENCE/TRAINING).
7. Extending the network with new, significant contributions including the Latin American area to have a wider and more varied spectrum of perspectives, realities and practices and be able to integrate different needs and new features of interest *in* the development of *e-portfolios* (EXTENSION).

Who is taking part in the network?

The network is formed by *teams of researchers* and education practitioners from different educational institutions in Spain with experience in some type of *action* related to the development or implementation of *e-portfolios*. There should be a certain balance between fields of application and study that do not only look after the presence of different interests, but also achieve *a* true integration of knowledge into the development of the proposals, incorporating *researchers* in the area of social sciences (concretely, psychology and pedagogy) and technology, preferably, although areas of specific knowledge should not be forgotten.

Other researchers involved in this network who are working in the "knowledge Management System, Corporate and Personal, processes oriented: SURICATA Platform" project funded by the Ministry of Education are working on the process of creating digital identities for individuals –like professionals, citizens, students, or professors. In this sense, the digital identity is a very important aspect to consider in the design of e-portfolios. This new general vision of the e-portfolio concept is a point of

convergence between the mentioned project and the goal of the NET e-portfolio that has allowed an enriching synergy to be created.

Data produced by the NET in its first preliminary study

As we mentioned before, one of the first goals of the NET has been to develop a MAP of projects that have been carried out in Spain. This first report has been created from the collection of 69 projects or case studies.

The methodology used in this preliminary study was a questionnaire with 5 main dimensions – Description (Context), Technological characteristics, Application (purpose, approach, the main teaching and learning objective...), E-portfolio structure, Evaluation (in terms of evaluating the experience)-. The mentioned questionnaire was answered by 69 experiences basically contextualized in Higher Education. Some of the data that has been analysed is as follows:

- 57 projects (86,4 %) have been applied in degree programmes, 2 of them in doctorate programmes, 2 in postgraduate courses, 1 in a primary school and the rest in other types of *training actions and contexts*,
- Of these, 22 projects (36,1 %) were piloted through self-created software, 14 (23,0 %) by *Moodle*, 5 (8,2 %) by *open source* (such like *ELGG*, *wikis*, *Claroline*, etc.) and others (basically commercial software),
- The most common application of *e-portfolios* is to help the teaching and learning process, and also to use new evaluation strategies. In the evaluation approach, the purpose is to provide formative and summative feedback to the students. Mainly formative than summative, but frequently both,
- The most usual application of e-portfolio is in subjects than in programmes. It is not an holistic approach, because the e-portfolio isn't applied during all the student learning process in terms of all the courses or studies he/she is doing at the university,
- In most cases, the main elements found in the e-portfolios analysed are: Curriculum Vitae (85,2 %), Rubrics (78,7 %), Follow up report (73,8 %), Public visualization (78,7 %), Competences (60,7), Feedback (52,5 %), Self-assessment (41 %),
- One of the aspects that stands out in the study is that the initiative to use e-portfolios is still coming from individuals (professors, teachers and trainers; 78,2 %) and only a few have been promoted by the institution,
- The students usually receive *training* in the goal and the use of the *e-portfolio* through face to face and online instruction, and tutorials,
- The use of rubrics as a system for evaluate student's competences and skills is not very popular, but, in the other hand, the processes of metacognitive aspects and the presentation of evidences and *feedback* brought by the professors or trainers is used frequently,
- Finally, from the academic point of view, the appraisal of the *practitioners* has been very positive, but when we analyse the appraisal regarding the process, it drops 30% due to the difficulties of implementation, little institutional support and a lack of knowledge of good practices and mechanisms of design and techno-pedagogic implementation.

Conclusions

The data collected in the preliminary study show a real trend to implement e-portfolios as a strategy to help students during all their learning process; teaching and learning processes should be more dynamic and participative in order to reach the challenges proposed by the new European educational scenario (student centred, new evaluation strategies, follow up, to reach competences).

More emphasis in design process and the implications of the institution is needed for successful e-portfolio implementation.

After the first months of life of the NETWORK, the need to create networks of *researchers* and *practitioners* that allow us to visualise the practice of others has been made evident, whether or not those practices are good. Therefore, the lessons learned are of great utility for all the community.

Designing website that gathers together accurate information and useful resources on the subject of e-portfolios to spread awareness of its potential uses and to provide instruments for the autonomous development of e-portfolios would be a good strategy for all members, even, to share our practices with other researchers around the world, not just in Spain, in order to create a wider network.

The members of the NET have demonstrated a great interest and motivation to learn, to share and to agree on models of design and implementation of *e-portfolios* that orientate us towards the achievement of better results. Also more case studies will be collected and analysed to go further in this research. For this reason we expect to show to the audience more interesting results in a very next future.

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