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# Eportfolio for lifelong learning

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**Abstract—** This paper presents the organization used in the University of South Bretagne to help students to define and manage their personal lifelong project. It is based on an eportfolio that records personal information. The eportfolio will follow the person all his life because the university will keep it available after the end of study in the university. Coming with the eportfolio a set of activities along the university curriculum is developed to help the student to build his first project and learn how to manage it.

**Keywords-component; eportfolio; longlife learning; basic skills, key competencies;**

## I. INTRODUCTION

Has mentioned in [1]: "... to achieve more and better jobs depend on ensuring that all citizens acquire key competences and update their skills throughout their lives".

It is then necessary to achieve lifelong strategies where is needed institutional commitment, coordination and partnership with all relevant stakeholders. From the higher education point of view it is then necessary to develop tools and activities to help a student to define his professional personal project and to learn how to manage it during his life.

In this paper we present the tool and the method developed in the Université Bretagne-Sud, in France, to perform this goal. The basic tool is an eportfolio to record all the results of the different activities made during the professional project construction and evolution. The method is based on a set of related activities, on one hand, to acquire knowledge on ourselves and on our environment, and on another hand, to acquire the skills and key competencies needed to achieve the professional project.

The basic tool is the eportfolio where the original part is that:

- it is present on the virtual learning environment. This environment will still be available for student after he has leaved the university to continue to manage his project during all his life because we will keep his account alive.
- the management of the portfolio is done using the email

The part II presents the basic structure of the eportfolio. It is composed by 4 main sections and in each section is composed by a set of standard criteria. The eportfolio is a

structure to record information. The structure is the same for all students at the beginning. But, due to the difference between people, the information recorded will depend on choices of the student. The student can modify the structure of the eportfolio by adding or deleting criteria. So the description presented in this part is to be understood as a generic structure.

The part III presents the management of the eportfolio. It shows in a first section how is used the email to manage the information in the portfolio and in a second section how to organize this management

The part IV introduces the accompanying modules proposed to the student in the curriculum to build his project. Modules are developed to follow the design of the project with a tempo of one module per semester, 10 modules for a 5 year degree course.

The part V presents briefly the activities proposed to student. Activities have a different target then the modules. Modules are designed to build and structure the professional project of the students, while activities are proposed to help the students to acquire or to train skills and competencies. The activities are optional.

Finally some conclusions and perspectives will be given .

## II. EPORTFOLIO ORGANISATION

The eportfolio is organized in 4 main sections : internal resources, external resources, my project and my communication.

A marginal fifth section is "links" to keep information on several sources.

### A. Internal resources section

In this section is memorized all the basic information on the person. In figure 1 is presented a screen copy of this section. On the left are define all the criteria taken into account in this section.

This internal resources section is organized around 3 general ideas of items to study: me, my personality and my experiences.

It is decomposed in 9 standard criteria defined has followed:

- **My Identity** gives the administrative information : name, date of birth ...
- **My Knowledge** gives the list of validate knowledge, reward, certificates...

- **Who am I** gives what I like: be alone or in group, indoor or outdoor, how I search information ... For people passing the MBTI [2] personality test, results on the personality is recorded here.
- **My History** how I decided to do what I have done. What is my autonomy in my past decisions?
- **My Motivations** what is the engine for me? To build this we use several classical constructions like the Maslow hierarchy [3] for instance
- **My Values** in the figure 1 is presented a simple synthesis of this item
- **My Expectations** what I am waiting from the life. This is of course connected to the previous criteria but we agree to have redundancy in the different part of the eportfolio because a human cannot fit in boxes
- **My Experiences** here is all the information about what makes me different for the others and what my experiences in group activities are. For instance we can have : sport activity, music, membership of an organization ...
- **My Jobs** gives the list of all professional activities done by the student.

This first section is the most private one, all information stored here is only accessible by the student via his virtual learning environment VLE. The confidentiality is then guaranteed by the VLE. The particular point is that our university will keep the VLE alive even after the end of the university course. This allows people to continue to access to the portfolio for a lifelong project.

#### B. External Resources section

In this section is memorized the result of the different activities made by the student to discover the working world. It decomposed in 8 standard criteria:

- **Documentary research** gives a link on general presentation of the working world. Jobs, sector ... are defined.
- **Exhibition & forums** it a memo of all the different events around the working society that the student visited
- **Conferences** is an abstract written by the student on some conferences organized in the university by professionals to present their activity, their company ...
- **Enterprise visits** a synthesis of all visited companies
- **Meetings** with professionals reports on round table or face to face discussion
- **Professional network** is an entry point to build the network of the student. It memorizes the name of the company, the contact, the activity ... has many times as possible

- **Educational background** is used to express what type of knowledge is required to work in a specific area
- **Complementary skills** more than the knowledge for some jobs some specific skills and competencies required are listed here.

#### C. My project section

In this third part is defined all the criteria to identify and manage a project. Of course all this section will be strongly connected to the section internal resources.

- **Skill Identification** what are my specific skills. What evaluation can I give on each skill? We use here a 4 levels scale: notion (I know what it is but I use it at an initial state), application (I can use it fairly), master (I am very good in), expert (I can train someone on).
- **Skill employability** Do I know how to use my skills? Competencies is then the word used. On this read [4]
- **Skill transfer** Can I use my skills in another situation, for other purpose?
- **Skill evolution** What should I work? What is weak in my person?
- **Project construction** is a synthesis of what I am, what I want and what are the steps to the target
- **Project evolution** how can I manage the future to reach my goal?

#### D. My communication section

In this part we memorize all the information that the student wants to use to exchange information on him self with the environment:

- **Curriculum vitae** the student writes a set of CV depending on the target. We ask him to adopt the recommendations of the EC [5].
- **Motivation letter** again a set of letters written for different targeted companies
- **Job interview** here is memorized the result of the evaluation of the simulations (see §IV)
- **Mobilize a network** learn to use your network to find the key person that may have the requested information
- **Speak** in front of a group coming from modules (§IV) and activity (§V) the key points to remember to be well-to-do
- **Animation** of a group idem
- **Driving** a meeting idem

#### E. Links

The place of the portfolio is used to keep links on relevant information for the personal project. It is also in this section that we can find the list of authorized person (see section III)

### III. EPORTFOLIO MANAGEMENT

#### A. The mail tool to manage the eportfolio

This part describes the method used to manage the portfolio. The originality of our approach is that all the management of the portfolio is done through the use of the email. For instance if the owner, Joe Martin, wants to add and information (for instance a text file) in the section “my experiences” of the “internal resources” criteria, he will send a mail as follow :

To: eportfolio.joe.martin@ubs.fr  
From: joe.martin@ubs.fr  
Subject: internal resources  
Attach: PersonalFile.txt  
Content: ADD my experiences

When the eportfolio manager receives this mail it does the following:

- Checking if the sender (joe.martin@ubs.fr) is allowed to write something in the Joe.Martin’s portfolio.
- Checking the attach file (here PersonalFile.txt)
- Interpreting the content of the mail. Here “ADD” is the instruction of the content of the mail, it means that the attached file “PersonalFile.txt” must be added in the section “internal resources” criteria “my experiences”

The content of the mail gives the instruction to be executed in the portfolio. The attach file expresses what information must be treated. The subject defines the section in which the information must be put. To keep the eportfolio simple the number of instruction is limited.

#### B. Levels of management of the eportfolio

We can distinguish 3 kinds of portfolio management: the information management, the criteria management, the authorized person management

- **information management** allow the user to add, move, delete information in the portfolio has described in the previous example. There is also a set of specific instruction to organize the presentation of the information in the eportfolio. For instance it can be included in the text or having a link on.
- **criteria management** gives a set of instruction to change the structure of each section of the portfolio. For instance we can add, remove, change place some criteria (see figure 1). This is important to allow someone to use his portfolio in a longlife project. We cannot determine what kind of criteria someone will need to add based on his experience of life. Consequently the list of criteria describes in the previous section is the standard one at the construction of the portfolio. But the student can rapidly add or suppress some criteria and build a personalized eportfolio

- **authorized person** management is a list of authorized people to send information to the eportfolio. This list is managed by the owner of the portfolio. He is the only one that can accept someone to write in a specific section of the portfolio. This protection is necessary to guaranty the protection of the data. People writing in the eportfolio can be : a teacher during the scholarship, a employer during the working life or a self evaluation in line test (see part IV)

### IV. MODULES CONNECTED TO THE EPORTFOLIO

The modules are teaching activities that are included in the curriculum. Because the French degree course is organized on a 3 or 5 years organization, the modules are constructed on the same schedule. The first 3 years are the basics activities for a student to define the project and acquire the basic rules to manage it.

All the modules contribute to fill the eportfolio. Each module has duration of around 20 hours and corresponds to one semester roughly 2 hour/week. We developed 6 modules to cover the 3 first years of the university degree.

The modules are chaired: by a teacher, a professional from a company or a specialist in people orientation (for instance an education psychologist). Some activities are made by inline test developed in the university.

The modules are organized as following:

**S1: Knowledge of ourselves, itinerary.** This entry point will include : in a first part the presentation of the different services, inside or outside the university, that the student will use to construct his project, and in a second part a first search on his past, the reasons why he his here will be performed.

**S2: Notion of competency.** This presents what is proper to people and not acquired by the education system. Not only formal knowledge but also how to live in group, how to interact with people, personal skills are reviewed

**S3: Job discovery.** To formalize the expected job of the student this module enforces the student to study the job and to meet someone doing this job for a discussion. During the meeting the student fills a report which is recorded in the eportfolio.

**S4: Link job and competency.** Here we look with the student the requested competencies needed by some targeted job. These competencies are stated in knowledge, skills, abilities, competencies. Here a part of the module is used to determine if the actual formation is relevant with the goal, if the student needs to train his personal skills to increase his capabilities. Here also, he writes his first CV.

**S5: Finalise the project.** It is the third year so it is time to prepare the student to enter in the working life. Here we look for a real company to target to find the expected job. Methods to search company, understand their business and focus the job are used.

**S6: Setting up strategy.** The final CV targeted for the job with the motivation letter is written. Simulations of interview are done to train the student. A point on his project

is done to look how it has evolved during the 3 years and an assessment of competencies is realized.

During the following 2 years, modules are used to improve the project and acquire the skills needed at an engineer level

S7: **Force and weakness** of the project. A confrontation between the project and his personal situation is done. This step is used to help the student to have an external look on his project and to bring some good judgement.

S8: **Work market**. A national and international point on the economical and political situation is performed. Information on how to build a company is done and simulation is realised.

S9: **Team management**. At this level the student will often have to take a place of manager in a team. He is trained to conflict detection, avoidance. Work organisation is also treated.

S10: **Network**. In this final stage the same operation that the one in S6 are performed again but a special interest in given to the importance of the network: private, business and administrative. How to build a network, to keep it alive.

#### V. OPTIONAL ACTIVITIES CONNECTED TO THE EPORTFOLIO

Based on the EU report [6,7] we can ask : what competencies do we need for a successful life and a well-functioning society?.

A set of basic skills is defined by the EC [8] as follow:

##### **Numeracy and literacy (foundation skills)**

##### **Basic competencies in mathematics, science and technology**

##### **Foreign languages**

##### **ICT skills and use of technology**

##### **Learning to learn**

##### **Social skills**

##### **Entrepreneurship**

##### **General Culture**

The university cannot provide solution to all of these items but our idea is that number of them can be improved by proposing to the students some optional activities.

Let's have a look to some proposed activities.

**Numeracy and literacy** are supposed established. But with the university library, we organize activities such "reading a report in limited time" to train quick reading.

A set of conferences made by student coming from other countries is performed. The students prepare a conference in a foreign language, on something that they think interesting in their country. This fixes the items: **foreign languages, social skills, general culture**.

The originality of activities is that they are independent of the curriculum and they mix together students of different domains and different years.

To the 8 basic skills we add some specific complementary activities to acquire a critical mind. It is today very important with the omnipresent of information coming from a lot of different sources TV, internet ... to be very careful in the appropriateness of the information. We try to examine all information with the questions: who is behind, what is reported, how it is reported, can I cross this information ...

#### VI. CONCLUSION

We proposed in this paper the description of the organization adopted in the Université Bretagne-Sud to prepare the students to build their own professional project and to learn how to manage it in a lifelong context.

The key point is the eportfolio connected to a set of modules to initiate the definition of the project.

The original approach to this eportfolio is to integrate it into the virtual learning environment of the student to guaranty the confidentiality of the information and to use the email to manage this portfolio. The advantage is then that the management does not need to learn a specific new tools, we assume that all students use email, and it is simply possible to collaborate to feed the eportfolio via a list of authorised person. Specific inline tests will also feed the eportfolio.

#### VII. PERSPECTIVE

The eportfolio source code will be disclosed during the year 2009. The idea here is to share this tool with other universities for a mutual benefit.

A second path is the connection of the eportfolio with high school. Actually high school is developing a set of activities for awareness to the professional project but there is a disconnection when the student enters in the university. We began the discussion at the level of the Bretagne education office to use the same eportfolio support to build a continuum from high school to university and after in a lifelong project.

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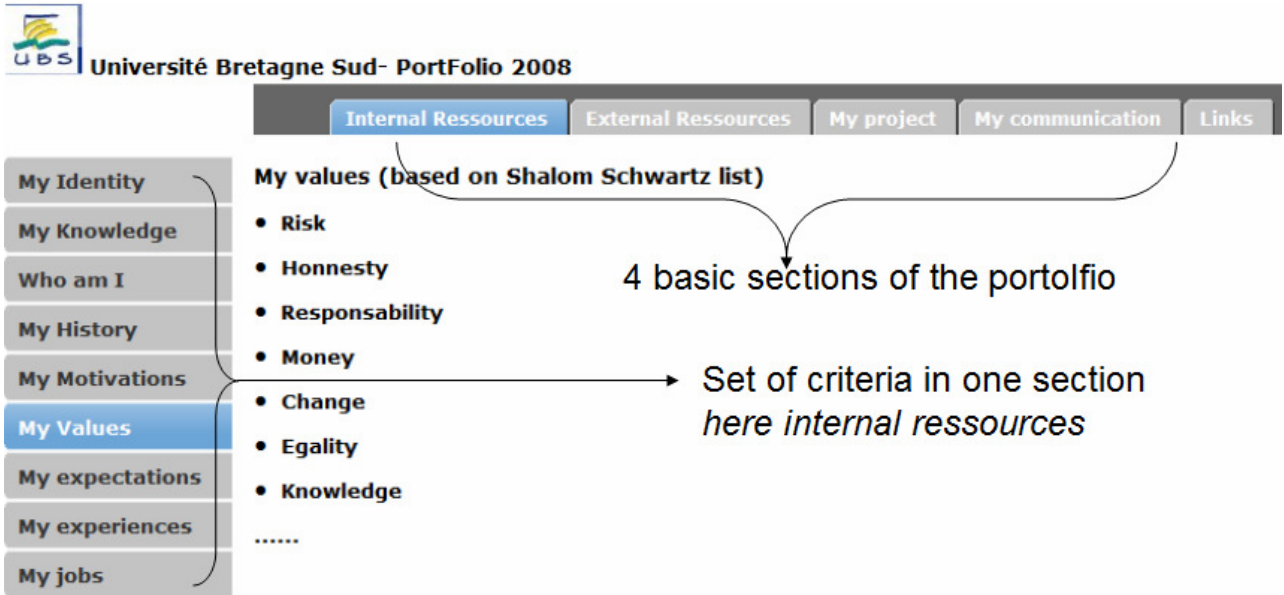


Figure 1. Copy of the UBS Portfolio.