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BUILDING STUDENT RESUME USING THE E-PORTFOLIO APPROACH

Hanae Mgarbi, Mohamed Yassin CHKOURI, Abderrahim Tahiri
Laboatory of Information System and Software Engineering (SIGL),
National School of Applied Science Tetouan,
Abdelmalek Essaadi University – UAE, Morocco

Abstract— **Before the development of the web, we talk about the portfolio; it was represented by a simple portfolio of student skills in paper form. This form of representation of skills and professional career has continued to develop over the years. After a succession of several stages in the concept of the portfolio, this simple paper form was transformed into a digital form called an e-portfolio [1, 5], which is centered on the personal and collective learning dynamics throughout the life of the student [10]. The resume is the first door to professional integration [7]. But the paper resume remains a document too linear and has not adapted to the complexity of current modes and channels of communication. The objective of our research work is the building resume student using the e-portfolio approach, allowing students to build and improve academic and extra-academic achievements while being part of a lifelong learning approach, to develop their digital identity and visibility by capitalizing on training achievements and skills obtained.**

Keywords— **E-portfolio, Lifelong learning, Digital identity, Digital environment.**

I. INTRODUCTION

Faced with companies wishing to find suitable and operational profiles, graduates leave university with acquired knowledge and skills which they group together and present in the form of curriculum vitae (resume) which is the first door to professional integration. But at the present time, the paper resume remains a document too linear when in reality the paths are more complex and more multiple. This form of representation of skills and professional career has not ceased to develop throughout these years, since this form does not facilitate for companies the search for trainees and suitable employees according to their sector of activity and professional needs. In addition, this document presenting the student profile has not adapted to the complexity of current modes and channels of communication. University laureates must be able to present themselves digitally. Currently, the student must be able to think about his professional integration in a bundle of constructions, proofs and demonstrations of skills.

If the portfolios [1, 5] have been used in the field of education in paper format in order to present the work of the students and thus demonstrate their development, progress and achievements. With the evolution of the Internet, « classic » portfolios have taken the form of « electronic portfolios » or « e-portfolios »; they have been used in educational [4] and professional fields.

Several e-portfolios have emerged with different characteristics [2, 3 and 6]. A study on open-source platforms was carried out based on several criteria including ergonomics, organization, security, sharing, and communication. Four platforms (Mahara [11], Karuta [14], Canvas [16] and Exabis [17]) were selected for this study.

The main objective of our research work is building online the student resume using the e-portfolio approach, allowing students to develop their digital identity and visibility by capitalizing on the learning outcomes and skills obtained during their studies and after graduation. This work was achieved by defining the set of features based on the e-portfolio approach and distributed to the sections defined to construct the student e-portfolio. The architecture and the implementation of the platform are based on the novel technologies, deployed and experimented by fixed group of the students to be evaluated. The purpose of the platform is to be a tool oriented towards assisting the professional integration of graduates into the socio-economic world. Our approach has several advantages as the promotion of a reflective approach [7] by students on their personal project: personal, professional and training course (initial, continuing and throughout life) and the development of the culture of digital identity by the student.

This paper is organized as follows. Section 2 gives an overview of e-portfolio approach. Section 3 presents the functionalities and e-portfolio platform based on e-portfolio approach. Conclusions close the article in Section 4.

II. THE E-PORTFOLIO APPROACH

A. Purpose of the e-portfolio:

If the portfolios [1, 5] have been used in the field of education in paper format in order to present the work of the students and thus demonstrate their development, progress and achievements. With the evolution of the Internet, « classic

» portfolios have taken the form of « electronic portfolios » or « e-portfolios »; they have been used in educational [4] and professional fields.

The e-portfolio [20] can be defined as « an evolving set of documents and electronic resources capitalized in a digital environment describing and illustrating the learning, experience, skills or background of its author. Accessible remotely via interoperable technology, it is based on a personal database (information, documents or links accessible via the Internet) and one (or more) collective selective publication space (s). » (« the e-portfolio approach in higher education » [19].). The electronic version of the portfolio [9, 21] has additional potential and possibilities: flexibility, ease of modification of the contents and structure of the portfolio, the addition of multimedia documents, accessibility and integration into a large network.

B. **Principles of the e-portfolio:**

The e-portfolio approach is based on the idea of guaranteeing a dedicated space for individuals to collect, deposit, discuss, share and arrange everything that concerns them. It is based on the following principles:

- Develop a profile and a digital identity: The student should think of his e-portfolio as a database about himself and his experience [8]. He must therefore include not only the elements making it possible to identify him, but also his work, his studies, his certifications, his colleagues' testimonies and letters of recommendation.
- Have a clear idea of their strengths and weaknesses: Each registered student must be able to present their skills acquired throughout their life and then qualify in relation to each skill, while assigning a percentage expressing their level in relation to this skill, which allows you to have a clear idea of your strengths and weaknesses [12].
- The content of the e-portfolio belongs to the student and is a matter of private life: it is he who chooses which data will be visible (public) and which will be invisible. A guarantee of reading rights must allow the student to have full visibility of his digital identity and therefore of the data that can be published.

C. **Types of portfolio**

There are four main types of portfolios. Each has a different purpose, but it is quite possible to use a hybrid portfolio that combines two or more of the types:

- The presentation portfolio: It is a collection of the best student works to showcase their skills. Students present their best work and achievements while providing the justifications for their choices. This type of portfolio is product and result oriented.
- The learning portfolio: This can be defined as a collection of homework and reflections to demonstrate a student's progress over a period of time. It focuses on the process rather than the outcome, and it promotes self-regulation of student learning.
- The evaluation portfolio: The portfolio evaluation is very similar to the presentations portfolio but adds a summative evaluation focused. This type of portfolio is a collection of assignments that allow the teacher to judge a student's skills and assign a grade.
- The professional development portfolio: This type of portfolio is a set of assignments and reflections documenting a person's career path. It's an evolving portfolio that a student can start to build. To successfully complete this project, students must assess their level of mastery of their professional competence based on their performance in assignments and their life experiences.

III. ONLINE CURRICULUM CONSTRUCTION BASED ON THE E-PORTFOLIO APPROACH

A. **Platform functionalities**

The e-portfolio platform contains a protected area, i.e. any account added must be protected by an identification consisting of a login (its e-portfolio number) and a password. For the creation of a student user account two steps are necessary: The first step, the student must complete a registration form indicating his student number, a valid email address, the home university and a password. The second step, a validation email is sent to the student to allow him to continue with the registration process. Email validation is very important for creating any account. Following the registration step and the creation of his login details, the user will be automatically directed to a dedicated protected area allowing him to enter personal information about him.

Once the user is authenticated, he will have the right to access the settings area which allows him to modify and complete all his personal data and choose the navigation language. The user will have the choice between the French language and the Arabic language. Then, the user is automatically directed to the main page of the e-portfolio platform, where he will have the right to access all of the following features.

The student can complete part or all of his e-portfolio through the 10 sections offered:

1) Who am I?
2) My presentation video
3) My training.
4) My professional experiences (internships / jobs / voluntary work)
5) My skills:
6) My projects
7) My recommendations and certifications
8) My languages:
9) My extra-curricular and leisure activities
10) Contact me

The student can update the visibility of data and personal and professional information entered at any time. This means that the student will have the possibility to publish (and therefore to make visible) part or all of his data. Changing the visibility of the data can be done with a single click according to the 10 sections described above.

The students can also visualize the resume in web or in PDF formats. The student will be able to share his resume with companies in both PDF and web formats. The web resume contains the video and links of the student's supporting documents while the PDF resume contains only textual information.

B. **E-portfolio platform**

The e-portfolio platform has been deployed and experimented by universities on the following link: eval.uae.ac.ma. Figure 1 shows the main part of the e-portfolio, from which the student can fill in all the elements mentioned in section II.1. The student will have the choice of uploading their resume in PDF format or viewing it in Web format. The web link and the resume can then be shared with companies to apply for a position.

The e-portfolio platform is innovative and original. It is oriented towards assisting the professional integration of graduates into the socio-economic world. It is characterized by:

- Monitoring and capitalization of students' experiences and skills;
- The development of the culture of digital identity by the student;

The electronic version of the portfolio has additional potential and possibilities: flexibility, ease updating of the contents and structure of the portfolio, the addition of multimedia documents, accessibility and integration into a large network.

IV. CONCLUSION

We establish an online digital environment based on the e-portfolio approach allowing students to develop their digital visibility by capitalizing on the learning outcomes and skills obtained during their studies and after graduation. The e-portfolio platform is innovative and original in the Moroccan university context. It is oriented towards assisting the professional integration of graduates into the socio-economic world by the development of the culture of digital identity and capitalization of experiences and skills.

The next steep of this work is to integrate the machine learning to choose the jobs corresponding to the profile of the student. The recommendation system will be able to provide the jobs for applicants already registered on the e-portfolio platform ordered in a dynamic score that indicates the degree of relevance between the candidate profile and job listings.

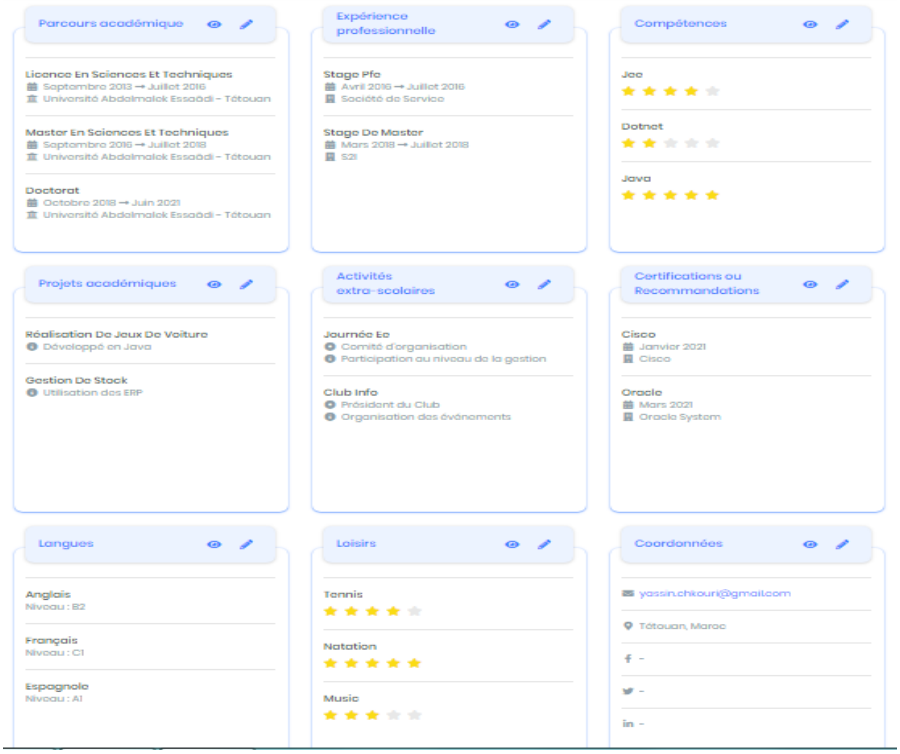

Figure 1: The sections of the e-portfolio

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