e-Portfolio Service for Undergraduates’ Academic and Career Development

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Abstract—This study aims to propose an e-Portfolio service framework and evaluate the impact of our proposed e-Portfolio service on students’ achievement of “ideal” graduate outcomes of our university, in terms of how students’ affective, cognitive and behavioral engagement in the e-Portfolio service on their achievement of graduate outcomes on teamwork, employability and responsibility using a survey and focus group interviews. The findings are expected to provide theoretical and empirical contributions to the field on e-Portfolio service and university learning.

Keywords- e-Portfolio service; feedback rating; gap analysis

I. INTRODUCTION

Guiding university students towards personal, academic and career development is always difficult and challenging at all the programme, department and university levels. This paper aims to propose an e-Portfolio service framework to handle such challenge and examine its impact on the students’ achievement of “ideal” graduate outcomes, the area that has been under-researched to date. In general, e-Portfolio is a digital collection of artefacts and demonstrations of individual accomplishments throughout a period of time, e.g. university study, in the form of text and multimedia like videos and photos. However, with the advent of Service-Oriented Architecture (SOA), mobile and Internet services, we propose an e-Portfolio service, which supports collaboratively creation of those artifacts with evaluation feedback by other permissible stakeholders (e.g. teachers, intern supervisors, trainers, peers, etc) in addition to help students set goals, plan, record, reflect and present their development and achievements collaboratively with, in general, and present themselves to potential employers in particular for internship or job placement upon completion of the university study.

The aim of work-in-progress paper is twofold. In the first part, we describe the service framework that realizes our idea of the e-Portfolio service. In the second part, a research model is developed to test relevant hypotheses between different types of engagement and graduates’ attributes set in our university.

II. PROPOSED E-PORTFOLIO SERVICE FRAMEWORK

To obtain a verifiable and validated feedback and assessments from various stakeholders’ evaluation, a trustworthy architecture with evaluation feedback ratings [4] on assessment and achievement for each student is much important from different stakeholders’ viewpoints, for example, the employers. Regarding the competitiveness of job hunting, academic achievement or university scores is not only the reference for job recruiters. A trustworthy index, like search engine rank page (SERP), positive reputation, impact factor and expectation gaps [5], plays significant role in making up the mind for a position. However, the skills that job recruiters look for may vary from time to time, and possibly with different degree of emphasis, in the real world. Beside narrative comments and numeric scores given in a general e-Portfolio, the proposed e-Portfolio service is to provide various competent ratings that are dynamically driven by the relevant domain (e.g. a course, a specific industry). Artefacts, photos and excerpts from posts among students’ social media can also be flexibly combined and reused in the e-Portfolio at anytime and anywhere via manageable processes using mobile devices.

III. RESEARCH MODEL AND HYPOTHESES

To examine the impacts of our Proposed e-Portfolio service on students’ achievement of graduate outcomes during their university studies, we develop a research model (see Fig. 2) with three hypotheses on how students’ affective, cognitive and behavioral engagement in the e-Portfolio service affect their achievement of graduate outcomes on teamwork, employability and responsibility using a survey and focus group interviews. The findings are expected to provide theoretical and empirical contributions to the field on e-Portfolio service and university learning.
opportunities. This leads us to the second set of hypotheses:

strengthen their lifelong learning momentum and career helps students identify the true value of their studies, and for job placement [3]. Therefore, the e-Portfolio service and articulate their achievements and lastly be able to look action plans, record their thinking, collaborate with peers, the e-Portfolio service requires students to set goals, create Portfolios maintenance, students regularly reflect their regulation so as achieve their academic and career goals Portfolio service helps students develop a practice of self-planning, and self-regulation of performance. The e-Portfolio engagement can be defined as students’ sense of belonging, collaboration and help amongst student peers and teachers through the use of e-Portfolio service. The e-Portfolio service helps students create their self-identity by illustrating their successful stories in their studies [3] in their e-Portfolios, leading to high level of learning satisfaction, self-efficacy, and willingness to help others. Moreover, using the e-Portfolio service, students are motivated to develop a sense of their peer-identity and observe the different cultural background of their peers through interaction and provision of feedback amongst student peers. It leads to positive views about their teamwork experience, collaboration and responsibility. This argument formulates our first 2 hypotheses: H1a: Affective engagement helps university students relate cultural awareness to collaborate effectively in a teamwork situation using an e-Portfolio service.

H1b: Affective engagement helps university students reflect on the ethical and social responsibilities required of professional citizens in a global society using an e-Portfolio service.

2) Cognitive Engagement: Based on [2] and [3], cognitive engagement can be defined as students’ engagement in the e-Portfolio service for goal setting, study planning, and self-regulation of performance. The e-Portfolio service helps students develop a practice of self-regulation so as achieve their academic and career goals along with their university studies. Through their e-Portfolios maintenance, students regularly reflect their learning experience, learn to plan, execute and adjust their plan accordingly to their progress. Cognitive engagement in the e-Portfolio service requires students to set goals, create action plans, record their thinking, collaborate with peers, and articulate their achievements and lastly be able to look for job placement [3]. Therefore, the e-Portfolio service helps students identify the true value of their studies, and strengthen their lifelong learning momentum and career opportunities. This leads us to the second set of hypotheses:

H2a: Cognitive engagement helps university students relate cultural awareness to collaborate effectively in a teamwork situation using an e-Portfolio service.

H2b: Cognitive engagement helps university students reflect on the ethical and social responsibilities required of professional citizens in a global society using an e-Portfolio service.

H2c: Cognitive engagement helps university students generate a positive and flexible approach to lifelong learning and employability using an e-Portfolio service.

3) Behavioral Engagement: Based on [1] and [3], behavioral engagement can be defined as the time and efforts students spent on developing and using the e-Portfolio service. The e-Portfolio service helps students accumulate their successful learning experiences and share their academic achievement with their student peers. With the frequent update of their e-Portfolios and visit the e-Portfolios of their student peers, students are motivated to peer-assess and peer-reflect their e-Portfolios as part of responsibility to the e-Portfolio service. With the notion to help each other to achieve better academic and career development, students are willing to contribute their time and efforts to ethically present their achievement and honestly judge one other’s e-Portfolios. Therefore, the more students engage in the e-Portfolio service, the better the students can develop their ethical and social responsibilities to help each other to grow in the university studies. This argument formulates our third 2 hypotheses:

H3a: Behavioral engagement helps university students relate cultural awareness to collaborate effectively in a teamwork situation using an e-Portfolio service.

H3b: Behavioral engagement helps university students reflect on their ethical and social responsibilities in the university studies using the e-Portfolio service.

IV. METHODOLOGY AND SUMMARY

To evaluate the effects of the e-Portfolio Service on students’ graduate outcomes in the university study, this study will use a self-administered survey and focus group interviews to collect the data from a cohort of about 120 graduates of a department in our university. The survey is established based on existing instruments, e.g. [1], [2], [3]. To test the hypotheses, multiple regression analyses will be carried out. The results will be reported in the conference.

REFERENCES


