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Abstract

E-Portfolio is considered as a digital collection of students' work which demonstrates their reflections, experiences and progress over a period of time. Students can collaborate with other students and their lecturers through e-Portfolio. This paper explains the importance of uses and gratification theory in an electronic portfolio. Using the theory, this paper will investigate and examine the gratifications that students receive from the use of e-Portfolio. Generally speaking, this paper intends to provide a better understanding of why students use e-Portfolio. For the purpose of this research, an exploratory study is applied using 15 in-depth interviews with the students who use e-Portfolio. The result of qualitative content analysis shows that the e-Portfolio use is motivated by eight major themes including giving and receiving feedback, long-term consequences of use, self-documentation, information sharing, informativeness, social interactions, entertainment and convenience utility. Among these themes, giving and receiving feedback, long-term consequence of use, information sharing and self-documentation have the considerable influence on student motivation to continue e-Portfolio utilization. These themes can help universities to be aware of their students' needs and reasons of using e-Portfolio. Therefore, universities can change some of their policies to motivate the students to continue the use of e-Portfolio.

Keywords: Electronic portfolio, E-Portfolio, Uses and gratification approach, U&G, Motivation, Directed content analysis.

1 INTRODUCTION

A global effort has been done for including Information Technology (IT) to the learning environments, with the focus of integrating IT with teaching. Based on the results of this effort, e-Portfolios emerged as one of the latest educational tools (Chen et al., 2012). The use of electronic Portfolio (e-portfolio) has been increasing over the last decades (Baris & Tosun, 2013; Lorenzo & Ittelson, 2005a; Shroff et al., 2013; Yu, 2011). Recently, e-Portfolios have became an essential tool in the educational context (Huang et al., 2011). They offer opportunities to modify the nature of learning environments and promote students' learning through different modes of learning (Ayala, 2006). E-Portfolio provides students with the opportunity of creating, sharing and developing their ideas and reflections (Baris & Tosun, 2013). According to the literature, students feel more positive and confident towards their learning when using e-portfolios (Hussein, 2009; Shroff et al., 2013; Zhang et al., 2007). However, some universities complain that the students would not continue the use of their e-Portfolios. The problem is that the student is not actually motivated to use the system. Motivation to use often requires an answer to the question of "what is in it for me?". The added-value of e-Portfolio utilization needs to be identified in order to enhance the possibility of student engagement (Tosh et al., 2005). In spite of the advantages of e-Portfolio for students, less attention has been paid to explore the motivational factors and reasons of using e-Portfolio by students (Mobarhan et al., 2014).

In this regard, investigating different theories and frameworks for suggesting a solution to the existing problem demonstrates that uses and gratification (U&G), which is a widely used framework in the area of communication, can be helpful in order to address the mentioned e-Portfolio gap. U&G approach has been used in mass media communication researches to identify the advantages obtained from using any specific media and to explore how these benefits shape the users' behaviour toward using the media (Parker & Plank, 2000; Stafford et al., 2004). U&G theory assumes the adoption of a medium, and tries to describe the user's acceptance and continued use of that specific medium (Stafford et al., 2004). Majority of researches, which are employing U&G approach, concentrates on gratifications received, because they provide insight into what motivates continued use of the specific media (Katz et al., 1974).

Based on the existing problem, this paper applies uses and gratification theory to provide a comprehensive understanding of why students use e-Portfolio and what motivate them to use it continuously. Therefore, the main objective of this paper is to identify the uses and gratifications that the students obtained from e-Portfolio.

2 THEORETICAL BACKGROUND

2.1 Electronic Portfolio

An e-portfolio is "a purposeful selection of evidence by the learner at a point in time, with a particular audience in mind" (Hartnell-young et al., 2007) (p. 1). E-Portfolio can be used for different purposes such as learning and teaching, assessment or employment (Milman, 2005). Lorenzo and Ittelson (2005a) described that there are six major functions for e-Portfolio including planning the educational programs, recording the skills, learning achievements and reflections, tracking learning development and progress, finding a job, assessing a course and evaluating performance.

The major content of e-Portfolio described by Madden (2007) are as follow (Madden, 2007):
- Evidences of accomplishments
  - Direct: actual pieces of work which is created by students such as reports or slide presentations.
  - Indirect: artefacts' demonstrations such as photos, exam title or grades.

- Declaration about the evidences: students' explanation about the reasons of including the specific evidences.
- Feedbacks from other students or supervisors on their evidences.
- Some personal information about the authors such as:
  - Personal details
  - Their future objectives
  - Their interests

E-Portfolio actually helps students by giving them a better understanding of their skills and abilities, strengths and weaknesses that need to be improved in order to achieve academic and career objectives (Lorenzo & Ittelson, 2005b). Therefore, It can provide a personal storage (Moores & Parks, 2010) which helps students keep track of what they are doing.

2.2 Uses and gratification theory

Uses and gratification (U&G) theory is derived from mass media communication research and explains the psychological and social motives that affect people's decision to choose a specific media to gratify their cognitive and effective needs. U&G theory examines the motivations people received from using the media in which it fulfils their needs and leads to their gratification(Katz et al., 1974). The main question that the uses and gratification theory aims to answer is "Why do people become involved in one particular type of mediated communication or another, and what gratifications do they receive from it?" (Ruggiero, 2000, p. 29). According to Ruggiero (2000), the main assumption of this theory is the users are active, goal-directed and aware of their needs.

Technology acceptance theories assume the organizational acceptance and adoption of a new technology. However, the continuous acceptance and use is an important part in the success of an innovation. U&G theory supposes adoption of a technology in the context of continued acceptance and use. It means that U&G is theoretically similar to TAM insofar, however, it describes continued use of a technology which has already selected (Stafford et al., 2004).

U&G theory has been used in many different contexts including television, telephone, Internet, social media, social network, Facebook, e-learning, twitter, online games and mobile services. Some of them are exhibited in table 1. U&G is an suitable theory to find out the Internet-related needs and motivations (Ko, Cho, & Roberts, 2005; Ruggiero, 2000; Stafford et al., 2004; Stafford, 2008).

References	context	Factors
(Papacharissi & Rubin, 2000)	Internet Usage	– Interpersonal Utility – Pass time – Information Seeking – Convenience – Entertainment
(Luo, 2002)	E-Consumer Behaviors	– Informativeness – Entertainment – Irritation
(Ko et al., 2005)	Internet Usage	– Information – Convenience – Entertainment – Social Interaction
(Wu et al., 2010)	Online Games	– Achievements – Enjoyments – Social Interaction

(Liu et al., 2010)	Twitter Usage	– Content Gratification: Disconfirmation of Self-Documentation, Disconfirmation of Information Sharing – Social Gratification: Disconfirmation of Social Interaction – Process Gratification: Disconfirmation of entertainment, Disconfirmation of Passing time, Disconfirmation of Self expression – Technology Gratification: Disconfirmation of media appeal and Disconfirmation of Convenience
(Whiting & Williams, 2013)	Social Media	– Social Interaction – Information Seeking – Pass time – Entertainment – Relaxation – Communicatory Utility – Convenience Utility – Expression of Opinions – Information Sharing – Surveillance/Knowledge about others
(Chiang, 2013)	Social Networking Sites	– Social Interactivity – Informativeness – Playfulness

Table 1.   Uses and gratification frameworks.

2.3   Relevance of uses and gratification theory and e-Portfolio usage

The purpose of current research is to apply U&G theory to e-Portfolio in order to realize the motivational reasons of students to choose e-Portfolio and to understand how e-Portfolio can satisfy their needs. Moreover, U&G theory is useful to find out why student use e-Portfolio, because the main elements of U&G theory include the social and psychological needs and also how the media can gratify these needs (Rubin, 2009). Based on the literature, there are different uses and gratification frameworks shown in the table 1. Considering the appropriateness between the features of e-Portfolio and U&G factors, this study focused on three of them: Chiang (2013), Liu et al. (2010) and Ko et al. (2005).

The Ko et al. (2005)'s framework was selected, because it has looked at uses and gratification in the context of Internet, which is an important part in e-Portfolio. The reason to choose Chiang (2013)'s scales was that it has looked at uses and gratification of social networking sites. As e-Portfolio and social networking sites have some features in common such as sharing and recording information, those factors can be considered important for e-Portfolio as well. Moreover, he has investigated the continuous use of social networking sites, so it can provide a good foundation for this research. Furthermore, Liu et al. (2010)'s scale was selected due to some of the common features of e-Portfolio and Twitter, as they both provide an environment to send and receive messages.

Reviewing factors of the selected frameworks and the e-Portfolio features shows six common themes. These themes are discussed as follow:

1. Self-documentation :

Based on the uses and gratification theory, this theme is explained that the students use e-Portfolio to keep a record of their learning achievements, experiences and reflections. The title of this theme comes from Liu et al. (2010) research on twitter usage.

2. Informativeness:

This theme is defined as the extent to which the Web provides users with resourceful and helpful information (Chen & Wells, 1999). Moreover, Chakraborty et al. (2005) defined Informativeness as the ability of website to make information available (Chakraborty, Srivastava, & Warren, 2005). The title of this theme is taken from Chiang (2013). Ko et al. (2005) also have a similar theme named information. This theme explains that students use e-Portfolio to get useful information associated with their educational learning problems. If the information provided for them is rich, they are more motivated to use the system.

3. Information sharing:

This title comes from Chiang (2013). According to this theme, e-Portfolio utilization is related to sharing information of individuals with others. Information to be shared can be the personal information, the new learning achievements and reflections or information about their interests.

4. Social interaction:

This theme is mentioned by all three chosen frameworks. According to Ko et al. (2005), "people may visit a website to exchange ideas, communicate with friends, or interact with other people when they have high social interaction motivation" (p. 60). Preese (2000) defines it as "the individuals feeling of ease and comfortable to engage in interpersonal communication exchanges through the technology-enabled space" (Preece, 2000). Based on the literature on uses and gratification, this theme is defined as using e-Portfolio for communication and interaction with their peers and lecturers.

5. Entertainment:

This theme means that students use e-Portfolio for having entertainment and enjoyment. Both Ko et al. (2005) and Liu et al. (2010) has an entertainment dimension in their scales. Also Chaing (2013) has a similar item which is called playfulness. They defined playfulness as "the strength of one's belief that interacting with SNS will satisfy one's intrinsic motivations" (p. 857).

6. Convenience utility:

This theme is related to providing the convenient and suitable environments to use e-Portfolio. This theme is mentioned by Ko et al. (2005) and Liu et al. (2010). It can be related to e-Portfolio system and environmental features such as ease of use and facilitating conditions respectively.

Table 2 provides the frequencies of predetermined themes in the selected frameworks. These U&G themes will guide the researchers to have a background on the initial reasons of using e-Portfolio by students.

Themes	References	Frequencies in the selected frameworks
Self-documentation	(Liu, Cheung, & Lee, 2010)	1
Informativeness	(Chiang, 2013; Ko et al., 2005)	2
Information sharing	(Chiang, 2013)	1
Social interaction	(Chiang, 2013; Ko et al., 2005; Liu et al., 2010)	3
Entertainment	(Chiang, 2013; Liu et al., 2010)	2
Convenience utility	(Ko et al., 2005; Liu et al., 2010)	2

Table 2.   List of predetermined themes

3   RESEARCH METHODOLOGY

Reviewing the literature demonstrates that the relationship between uses and gratification theory and e-Portfolio has not been investigated in previous studies. In this case, the most related U&G frameworks to e-Portfolio have chosen from the literature. This paper aims at considering a new area

in e-Portfolio, which is motivation. Hence, interviews have been carried out in order to increase the reliability of the findings by discovering the new factors.

3.1 Sample Selection

In order to confirm the identified factors and also to recognize the additional new factors, an exploratory study was conducted using 15 semi-structured interviews with undergraduate students who were using e-Portfolio. The names of these students were taken from the administrator of e-Portfolio. The target interviewees of this study were selected from different faculties of one of the public universities in Malaysia. 40 percent of respondent were male and 60 percent were female. Most of the interviewees were in third years of their study. The students were asked the reasons of why they are using e-Portfolio. The questions were such as what they enjoy about e-Portfolio, what functions of e-Portfolio are useful for them, what are the benefits they have obtained from using e-Portfolio. All interviews were conducted face-to-face. They were first recorded and then transcribed. The data collection was continued until the data saturation was reached and no new information was obtained.

3.2 Directed content analysis

For analysing the qualitative data gathered from the students, the qualitative directed content analysis method is applied. In this case, the theory or previous work on the phenomenon exists, but it is not complete, or may it can be more beneficial by applying further explanation (Hsieh & Shannon, 2005). According to Hsieh and Shannon, "the main goal of a directed approach to content analysis is to validate or extend conceptually a theoretical framework or theory". They defined five stages for this type of content analysis which are explained here.
1. Using existing theory or prior research, researcher starts by determining key variables as initial coding (Potter & Levine-Donnerstein, 1999).
2. Then each theme is operationally defined based on the definitions of the theory.
3. Next is to conduct an interview with open-ended question which might be followed by questions about the predetermined themes.
4. Thereafter, coding can be started based on the results of interviews.
5. The final step is to code all highlighted sections using the predetermined codes. If any theme could not be considered as part of the initial coding, the new themes would be developed for them.

This method helps researchers to have a fundamental background about the possible themes. Therefore, the process of interview and coding the themes would be accelerated.

4 RESULTS AND DISCUSSIONS

After analyzing the qualitative interviews' data based on the method, two new themes were identified rather than the themes mentioned in the previous section. Therefore, totally 8 themes were developed. These themes will be discussed below in the order of their frequencies.

4.1 Long-term consequences of use

The first new theme is long-term consequences of use cited by 93 percent of students. According to Triandis (1979) perceived consequences are considered as an expected outcome of being engaged in the system (Triandis, 1979). This theme also highlighted that student use e-Portfolio for the future effects of e-Portfolio as their feedbacks show:
- "I use e-Portfolio to have a good resume for finding a job in future".
- "E-Portfolio enhances my educational outputs over the semesters".

Most of students' effort is to become a professional in their fields in order to enhance their opportunities in their future employments. Using e-Portfolio give them the confidence about their futures by providing a good resume.

4.2   Information sharing

93 percent of students pointed out that they use e-Portfolio to share their personal and educational information. They found e-Portfolio as a useful tool to share their experiences, reflections, assignments and even their photos and videos. Their comments are such as:

- "E-Portfolio is really good, because it lets me to share my learning achievements with my friends".
- "I like to share my experiences and even my photos and videos about my classes".

4.3   Giving and receiving feedbacks

Another new theme, which is mentioned by 86 percent of students, is giving and receiving feedbacks. Feedback can be defined as an advice, criticism, or information about the usefulness or goodness of somebody's work (Lu & Hsiao, 2007). Feedback is perceived as not only cause to achieve the performance goals but also lead to a higher feeling of competence (Barr & Conlon, 1994). The students expressed that the opportunity for giving and receiving feedbacks is one of their reasons to use e-Portfolio. They sated that they are more satisfied when they have the useful feedbacks of their lecturers, academic advisors or even their friends.

They used their lectures and friends' feedbacks to improve their knowledge and performance. Their comments include:

- "My lectures and friends always support my postings and reflections".
- "My lecturers try to make my mistakes correct".
- "Others' comments help me to increase my performance".

4.4   Self-documentation

80 percent of students revealed that they use e-Portfolio mostly to record their achievements and activities. So they can compare their progress over their educational period. Some of the students' responses are:

- "I use e-Portfolio, because I can see what I've done over the semesters".
- "By recording my learning reflections in e-Portfolio, I can be informed about my learning strengths and weaknesses".
- "Using e-Portfolio helps me to record whatever I've learned".

4.5   Social interactions

73 percent of students indicated that they use e-Portfolio for the social interactions. They find e-Portfolio helpful to be connected with their friends, lecturers and academic advisors. They can see their friends' interests and be in touch more with those who have similar interests. Their feedbacks include:

- "I use e-Portfolio to be in touch with my friends and lecturers".
- "E-Portfolio helps me to find my friends who have similar area of research".

4.6   Informativeness

This theme is mentioned by 73 percent of students. They expressed that one of the reasons for using e-Portfolio is the quality of information they've gained from e-Portfolio, as they stated:

- "I'm interested in e-Portfolio, because I can learn lots of new information".

- "I can mostly find answer to my learning questions when using e-Portfolio".
- "E-Portfolio helps me to know about my friends' new experiences and reflections".

4.7 Convenience utility

This theme is referred by 66 percent of students. The students stated that they use e-Portfolio because it is more user-friendly and accessible than other university learning applications. Their feedbacks are:
- "There are enough resources to support the use of e-Portfolio".
- "E-Portfolio is really convenient to use".
- "E-Portfolio has the required function to communicate with my friends and lecturers".

4.8 Entertainment

53 percent of students said that they are using e-Portfolio for its entertainment. They stated that they have fun using the system such as watching their friends' photos and videos. As the comments show:
- "I enjoy e-Portfolio because it's not only about learning but also we can upload photos, videos and our favorite music".
- "E-Portfolio makes me curious to see what my classmates have done".

5 CONCLUSION AND FUTURE RESEARCH

E-Portfolio is considered as an important tool for recording student progress and achievement and as a useful tool for student assessment. Based on the literature, e-Portfolios are becoming an essential tool for universities. However, the challenge for universities is "how to motivate students to use e-Portfolio continuously?". This paper aims at demonstrating the significance of uses and gratification theory in e-Portfolio researches. This theory helps to understand the critical motives for students to use e-Portfolio continuously. According to purpose of this paper, 15 in depth interviews have done with students who were using the system. The findings show that there are eight reasons that motivate students to use e-Portfolio including giving and receiving feedbacks, long-term consequences of use, self-documentation, informativeness, information sharing, social interactions, entertainment and convenience utility. As the results shows, long-term consequences of use, information sharing, giving and receiving feedbacks and self-documentation are the most cited reasons to use e-Portfolio.

The giving and receiving feedbacks and long-term consequences of use are two new themes which are determined by interviews. They are unique to e-Portfolio systems. E-Portfolio provides an environment for exchanging the feedbacks which leads to encouraging students to share more information. It helps students to realize their mistakes and improve themselves. Furthermore, one of the goals of students for the study is to increase their current performance and future opportunities in job vacancies. E-Portfolio is one of the educational tools, which considers the future of students' employment. By recording their activities and achievements, the students can provide a good resume to improve their position.

This paper contributes to the body of knowledge in several ways. It helps universities to know the principal motives for students to use e-Portfolio. Hence they can apply some changes to their current e-Portfolio strategies and policies to motivate students to use e-Portfolio continuously. It also helps to the e-Portfolio literature by explaining the reasons of students to use e-Portfolio.

This research has the limitation of the small sample size of the interviewed population. Therefore, further research can apply to investigate more motivational factors, if exist. Another future work can be to examine the relationships between these factors and the student continuous intention to use e-Portfolio.

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