



Contents lists available at ScienceDirect

Computers in Human Behavior

journal homepage: www.elsevier.com/locate/comphumbeh

Reconsidering teachers' habits and experiences of ubiquitous learning to open knowledge

Sophia Ming Lee Wen^{a,*}, Tze-Chang Liu^b^a Taiwan Shoufu University, Taiwan^b Tunghai University, Taiwan

ARTICLE INFO

Article history:
Available online xxx

Keywords:
Open education
Open knowledge
Pre-service teachers
Teachers' habits

ABSTRACT

Open knowledge is a core supportive concept of open education with booming up of information communication technology (ICT) in the era of ubiquitous technology and learning. The “openness” idea influences open education and knowledge producing. This study focuses on what may predict pre-service teachers' supports of “*open knowledge*” which may influence open education. First, the authors argue that ICT is important but not the only crucial role in open education development with an empirical study. There are 69 participants, pre-service teachers, as empirical subjects in this study. The stepwise multiple regression outcomes show that there are four predictors may influence teachers' habits of open knowledge, namely, self-expression in both ICT and face-to-face environments, following authority/obedience to authority, and willing to share knowledge. In order to justify the force of obedience to authority for prediction, more samples of survey may conduct in the follow-up research.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

By late 1990s, ubiquitous computing issues are catching the attention from the civilian and military research institutions in the United States (Friedewald & Raabe, 2011). Ubiquitous computing has a significant application in trade, logistics, industry, transport, healthcare, and personal identification either economically or societally (Friedewald & Raabe, 2011). It (ubiquitous computing) is normally associated with a large number of small electronic devices with computation and communication capabilities including, smart mobile phones, contactless smart cards, handheld terminals, sensor network nodes, Radio Frequency Identification (RFIDs) etc. which are being used in our daily life and change our learning forms in which peer interactive social network may support such learning environment (El-Bishouty, Ogata, Rahman, & Yano, 2010). Ubiquitous technology development influences education to support both teachers and learners to conduct knowledge learning anytime, anywhere, by anyway. This kind of openness of learning boundary can be viewed as the modern practice of open education.

Open education can refer to use information communication technology (ICT) to open the gate for knowledge learning and sharing. There are many studies on instructional technology and its influences on education. These studies emphasized on technology

and argued that technology determines how open education developed (Brown & Adler, 2008; Knox, 2014). However, comparing with studies focusing on hardware and software, other issues such as the teaching and learning, especially for the professional activities in online learning are less studied (Murphy, Shelley, White, & Baumann, 2011). Many studies in the past decade contribute to open education, including, but not limit to, distant learning, life-long learning, and especially open education resources (OER). Some focus on the efficiency and effectiveness of using ICT in either teaching or learning activities. For instance, Wastiau et al. (2013) suggested European countries take action and make policies to increase adopting ICT in education system, increasing digital schools, rising digital confidence and offering more supportive teachers to increase effective use of ICT in education among different countries. Some studies looked into the policy or social influences on open education (Gunawardena & Zittle, 1997; Ertmer & Ottenbreit-Leftwich, 2010). One of the main purposes of open education is to encourage collective knowledge creation. Open education encourage both teachers and students to share and express their knowledge and thoughts to produce knowledge together. Technology development cannot limit knowledge creation, though ubiquitous learning is as pervasive as the bombing development of ICT. Instead, knowledge creation should look into culture and social aspects rather than merely technology effects (Swan, Newell, Scarbrough, & Hislop, 1999; also in Morner & von Krogh, 2009). Teaching and learning in open education is not only limit to aspect of technological usage but social issues, concerning

* Corresponding author. Mobile: +886 937937001.

E-mail addresses: sophia.t04008@gmail.com (S.M.L. Wen), tcliu0215@gmail.com (T.-C. Liu).

the interaction relationships among teachers and students (Morner & von Krogh, 2009).

Studies on open education should go beyond technology utility during such a ubiquitous era. The core idea supporting open education is not just the usage of advanced technology but the concepts of transforming open knowledge to pedagogy (Wen, 2014). Technology in open education does not only play the role of mechanic support of openness but cultural and social influences (Foucault, 1972). As Besley and Peters (2007) mentioned, both Heidegger and Foucault consider technology as a way of revealing truth and influencing human subjectivity. Heidegger (1977) claimed that technology as the united of mind taking fine art as human activities to reveal truthiness of the world. Therefore, the first purpose of this paper is to discuss the core idea of open education – open knowledge. There are limited quantitative studies concerning the nature of open knowledge. This leads to the second purpose of this study.

The second purpose of this paper is to understand what influences pre-service teachers about the core idea of open knowledge. Open knowledge can further influence their teaching behavior in the future, especially dealing with open education activities. In this study, pre-service teachers from a private university located in mid-Taiwan were selected as an example.

In the past, only several normal universities or teacher colleges were permitted to offer teacher preparation programs in Taiwan. However, the public challenged against the conservative teacher culture in the schools which may influence the outcomes of education reform (Wen, 2008). Since 1994, all higher education institutions in Taiwan, including the private sectors, start allowing to apply for teacher preparation programs, according to the new policy for teachers training. The openness of teacher preparation programs may lead to multi-culture of pre-service and in-service teachers (Wen, 2002). Therefore, different universities may have different cultures that may influence pre-service teachers. The private university in this study is considered as an institution emphasizing on liberal education, comparing to the traditional teachers training institutes/colleges/universities. The teacher preparation program in this private university began in 1995. This teacher preparation program has its unique culture which influenced by the liberal culture of the university. These pre-service teachers will become a formal/registered teachers or educators. Their perspectives on open knowledge may influence how they teach in the future when conducting open education. To understand the possible predictors for their concepts on open knowledge can allow future study to understand how to educate pre-service teachers to support open knowledge and education.

2. Theoretical framework

Open knowledge can be viewed as a main concept of open education to open the knowledge to more individuals. Access and owning knowledge has been a source of power even in many organizations today (Awazu & Desouza, 2004; Desouza, 2003). In such cases, knowledge is seldom shared as open form (Awazu & Desouza, 2004). For open education, the access and ownership of knowledge is open to all open education participants including both teachers and students. The theoretical framework of open education is in fact the discussions of open knowledge and open pedagogy. The following section is concerning the concept of open knowledge and open pedagogy.

2.1. Openness of education and knowledge

Open education is one of the characteristics of modern education. Open education concerns forms of distance education utilizing

communication technology in order to make open education resources available to more inclusive individuals (Peters & Britez, 2008). The practice of open education can be traced back to the early 20th century and most developed in Britain and the United States (Peters & Britez, 2008). Hill (1975) described open education can provide education for increasing numbers of students through the flexible forms of teaching for various types of individuals in order to achieve educational equality. Open education movement challenges the traditional curriculum which are more specialized, discipline-oriented, and emphasizing the value of particular culture knowledge (Morgan, 1975). Studies indicated the interaction with different backgrounds students in the classroom can significantly influence students' openness to diversity (Gurin, Dey, Hurtado, & Gurin, 2002; Sáenz, 2010; Wen, 2008). Open education can provide a wide range of student participants, enrolling in open education programs to increase different backgrounds students' interaction opportunities, as Emery & Trist (1965) had conclude that the behavioural sciences has been under the impact of technological change, even until at the present time. In fact, open education resource (OER) which refers to sharing knowledge around the world remains an important issue (D'Antoni, 2008). The sharing knowledge in OER is the one of the core concepts of open knowledge, in particular, in such a technological era.

Open knowledge severs the foundation of open education to provide access to knowledge without limits. Beyond technology development, supporting open education, one should recognize the main philosophic idea to achieve "openness" of knowledge which is a complex concept. Relating to "openness", the idea of "something lied hidden from us" is an enduring and seductive ideology of 20th century modernism referring to "truth, knowledge, reality" and that which lies hidden yet governs our thinking or behavior (Peters, Liu, & Ondercin, 2011). Since the enlightenment, "openness" can be considered as a political, social, and psychological metaphor that has been part of a set of enduring narratives in the western world (Peters, Ondercin, & Liu, 2011).

To expose the "hidden truth", people need to use proper tools or methods. Plato categorized the two separate worlds of ideas and forms. The search of truth is to understand the ideas in Plato's perspectives. Knowledge is the key to revealing truth but not everyone can approach to the knowledge. Most of the time in human history, knowledge is only belonged to selected elite people who own the rights to interpret and use the power of knowledge. Knowledge has been esoteric form before modern open knowledge. Esoteric knowledge is sometime associated with the growth of mystery religions which developed after Christianity became the official religion of the Roman empire (Peters, Liu, et al., 2011). Many dissident groups developed into secret societies and were associated with more than mysticism but with privileged access and ways of reading the holy texts (Peters, Liu, et al., 2011). After the World War II and during the Cold War, Karl Popper and Friedrich von Hayek call for defense of the "open society" so that the concept of "openness" has come to represent such classic statement (Peters, Ondercin, et al., 2011). Later on, Jean-François Lyotard (1984) used "postmodern condition" as describing the state of knowledge and the problem of its legitimization in developed modern societies. Lyotard (1984, p.3) examined the hypothesis that *the status of knowledge is altered as societies enter what is known as the postindustrial age and cultures enter what is known as the postmodern age*. He (Lyotard, 1984, xiii) also claimed, "following the transformations which, since the end of the 19th century, have altered the game rules for science, literature and the arts". Following Lyotard's statement of questioning the legitimacy of meta-knowledge, people may reconsider to open to the multiple truth or tolerance differences instead of restrict to only one metanarrative. The core idea of openness to experience and interpretation permit multiple learning, language, systematic meanings for teachers, learners

Download English Version:

<https://daneshyari.com/en/article/10312749>

Download Persian Version:

<https://daneshyari.com/article/10312749>

[Daneshyari.com](https://daneshyari.com)