Technology Vs. Teachers: Student use of university digital collections and role of Teachers

Sanjukta Pookulangara, University of North Texas; Arlesa Shephard, SUNY-Buffalo State

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Introduction

There is a push to incorporate digital technology in pedagogy techniques today. Programs that maintain clothing and textile collections are often referred to as "teaching" collections because their primary function is to contribute toward student learning (Marcketti, Fitzpatrick, Keist, & Kadolf, 2011). In order to maintain their relevancy in the eyes of administrators as well as improve access to and awareness of the collection, many have begun to use digital technologies, such as social media and photographic repositories (Stewart & Marcketti, 2012). The challenge is in assuming that building a digital presence will guarantee use. Many university collections struggle with lack of use when the collection is not utilized through high-impact teaching practices (Cook, 2015).

Rationale of the Study

The purpose of this research is to better assess the acceptance and use of technology as it relates to the use of university digital collections. Historic costume and textile collections are being used to assist with classroom activities and there is great potential to enhance access to these collections through digital technology. Pedagogical strategies are calling for more digital technology in the curriculum because students today are considered digital natives. Just because students were raised with technology and use it in their daily lives does not mean that they will automatically be aware of digital resources or how to use them to enhance their learning (Margaryan, Littlejohn, & Vojt, 2011). Because digital collections require extensive resources in the form of time and money, it is important to understand students' likelihood to use these digital resources. The framework of this study is based on the expanded Technology Acceptance Model (TAM) used by Vankatesh and Bala (2008). This model evaluates the adoption and use of information technology (see figure 1).

Methods

Data from a survey developed from the Technology Acceptance Model was collected using a random national sample of 400 students through a survey service. The participants were evenly distributed in regard to gender, ethnicity, and geographic location. Data was analyzed using factor analysis and Structural Equation Modeling. The fit indices of the overall structural model ($\chi^2 = 927.95$, *d.f.* = 357, $p = 0.00000$, RMSEA: 0.063, NFI: 0.98, NNFI: 0.99) supported the model fit.

Findings of the Study

All of the hypotheses were supported except for the influence of experience and perceived ease of use on perceived usefulness. Social influences (i.e. professors, librarians, and peers) had an important impact on both perceived usefulness ($\beta = 1.08$) and perceived ease of use ($\beta = 1.38$) which indicates that social influence in an academic setting has an important impact. Interestingly, self-efficacy ($\beta = -0.26$) and navigability ($\beta = -0.24$) had a negative impact on

perceived ease of use. Both perceived usefulness ($\beta = 0.58$) and perceived ease of use ($\beta = 0.26$) influenced students' intention to use digital collections with perceived usefulness indicating a greater influence on intention to use digital collections.

Conclusions and Implications

The results of this research indicate that promotion by faculty and librarians is key to the use of digital collections. This is an important finding which supports the notion that students are less likely to seek out and use digital collections unless encouraged through pedagogical activities (Cook, 2015). Furthermore, perceived usefulness was an important influence on students' intention to use digital collection which suggests that emphasizing the necessity of using these collections for class activities, assignments, and research projects is an important motivational factor. The negative relationship of self-efficacy to perceived ease of use supports the idea that while students are familiar with technology, they often do not understand how to use these digital tools to support their own learning (Margaryan et al., 2011). This further emphasizes that the role of faculty, librarians, and peers should not be taken for granted in their ability to promote and motivate students to use digital collections.

Figure 1: Research Model
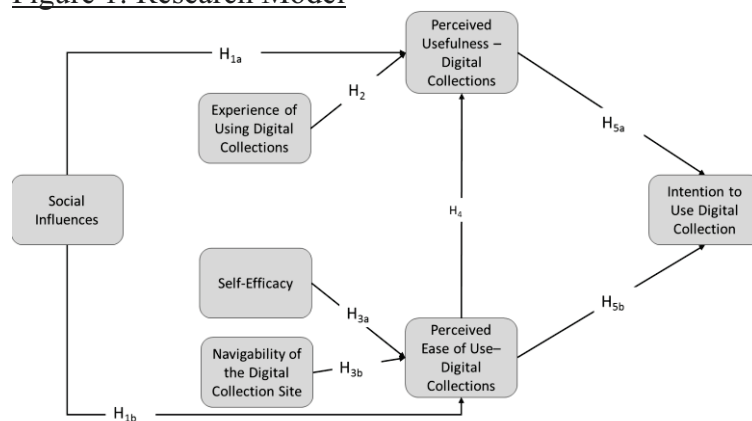
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