



Profiling the digital readiness of higher education students for transformative online learning in the post-soviet nations of Georgia and Ukraine

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Abstract

This study profiles the digital readiness of university students in Georgia and Ukraine for fully online collaborative learning, theorized as an educational pathway to democratic transformation. The Digital Competency Profiler was used to gather data from 150 students in Georgia and 129 in Ukraine about their digital competences. The analysis grouped students into high-, medium- and low-readiness segments for 52 actions in technical, communicational, informational and computational dimensions. Findings show that large percentages of Georgian and Ukrainian students are ill-prepared for many online-learning activities, and there is generally greater readiness on mobile devices than desktops/laptops. However, large percentages of Ukrainian students appear in high-readiness segments for communicating online and using social networks. In Georgia, many students report high-readiness for technical and computational interactions. Therefore, the researchers recommend using the digital-readiness data in tandem with a well-chosen, online-learning framework to align these patterns of strengths with future educational innovation.

Keywords: ICT, Social constructivist, Online learning, Ukraine, Georgia, Higher education

Introduction

Purpose

The post-Soviet nations of Georgia and Ukraine seek to align higher education with democratic development and social progress. Having theorized the potential of fully online collaborative learning for democratization (Blayone, vanOostveen, Barber, DiGiuseppe, & Childs, 2017) and facilitated a pilot course for students in Ukraine (Mykhailenko, Blayone, & vanOostveen, 2016), a broader program of educational-transformation research was launched with partners in several post-Soviet countries. Conducted from socio-cultural (Langemeyer, 2011; Somekh & Nissen, 2011) and human-computer-interaction (Jonassen & Rohner-Murphy, 1999; Kuuti, 1995) perspectives, this program began with an initial probe of student and professor digital competencies in Ukraine (Blayone, Mykhailenko, VanOostveen, Grebeshkov, Hrebeshkova, et al., 2017). Next, a lab-based study comparing self-reported digital competences to recorded digital-learning activities produced an

observationally-grounded approach to readiness assessment (Blayone, vanOostveen, Mykhailenko, & Barber, 2017, 2018). Using this approach, this study profiles the digital readiness of higher-education students in Georgia and Ukraine for fully online collaborative learning. The driving purposes are to contribute to ongoing educational-transformation in the post-Soviet world and offer online-learning researchers and practitioners an effective readiness-assessment toolkit.

Post-soviet educational transformation

Ukraine and Georgia share a 70-year Soviet experience that shaped their institutions, psychologies and social values (Raikhel & Bemme, 2016). Since achieving independence in 1991, both nations have pursued multi-level transformations accelerated by peoples' revolutions (Börzel, 2015; Delcour & Wolczuk, 2015). The resulting experience has included economic distress, loss of security and social benefits (Haerpfer & Kizilova, 2014; Roztocki & Weistrofer, 2015), and socio-psychological "fallout," such as loss of trust and dissatisfaction with life (Sapsford, Abbott, Haerpfer, & Wallace, 2015). Within this challenging context, Ukraine and Georgia have both taken significant strides towards transforming higher education, joining the Bologna process in 2005 to realign its Soviet institutions with the goals of the European Higher Education Area (Powell, Kuzmina, Yamchynska, Shestopalyuk, & Kuzmin, 2015). These efforts have produced positive results despite some bureaucratic resistance (Raver, 2007) and ongoing practices of corruption (Habibov, 2016).

Importantly, prospects for digital learning are well-supported by developing national ICT infrastructures (Ianishevskaya, 2017) with both Ukraine and Georgia achieving a top-60 ranking in the 2017 Social Progress Index's information and communication category (Social Progress Imperative, 2017a, 2017b; Stern, Wares, & Epner, 2017). Moreover, government support for distance learning is increasing (Powell et al., 2015), MOOC providers are making inroads into formal education (Ed-Era, 2017; Prometheus, 2017), and online-learning pilot projects are appearing in the English-language literature (Gravel & Dubko, 2013; Mykhailenko, Blayone, & vanOostveen, 2016; Powell, Kuzmina, Kuzmin, Yamchynska, & Shestopalyuk, 2014). Despite these positive developments, however, limited financial resources and signs of low digital-readiness among students, teachers and administrators remain (Blayone et al., 2017; Synytsya & Manako, 2010).

Conceptual framework

Online learning in higher education

Online learning, like distance learning (Anderson & Dron, 2010), blended learning (Halverson, Graham, Spring, Drysdale, & Henrie, 2014; Palalas, Berezin, Gunawardena, & Kramer, 2015) and mobile learning (Alhassan, 2016; Crompton, Burke, Gregory, & Gräbe, 2016) is a form of digital learning (Siemens, Gašević, & Dawson, 2015)—a melding of learning activities, digital devices and global networks to achieve educational objectives. The practices of online learning are diverse, incorporating many technologies, pedagogies and guiding values (Aparicio, Bacao, & Oliveira, 2016). Some forms of online learning, such as MOOCs (Massive Open Online Courses) focus on making premium educational content globally accessible (De Corte, Engwall, & Teichler, 2016). Others seek to implement scalable learning-management systems that maximize individual flexibility while supporting optional forms of cooperation (Dalsgaard &