Cultural Values and Technology: A Higher Education Specialist Research Report

A Review of the Literature

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Author Note

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Abstract

A critical aspect of doctoral research involves posing a question or problem that is worth exploring and reading widely to search or find possible answers and then interpreting what was read to draw reasoned conclusions. There is also another important step that looks at supporting those conclusions with valid and well-documented evidence. Research is a process and part of that process for this paper involved mapping out a search strategy. A search strategy is a systematic plan for tracking down sources (Hacker & Sommers, 2011). To create a search strategy appropriate for my research process, I had to organize articles based on the themes of "cultural values" and "technology" and "higher education". As a member of group one, I've taken on the role of higher education specialist. Part of the researcher's focus for this theme was based on the resources or articles searched using the Academic Search Premier Database. The other members of the team selected from the K-12 and Corporate Training specialist options. Over a period of two weeks databases searches were conducted for articles on the topic "Cultural Values and Technology in Higher Education". Evidence of these searches will be reported in the search strategy tables outlined in the next section of this paper.

This paper will delve into the technological and cultural challenges that European universities face and how its cultural values are being shifted. The research proceeds from two starting observations as proposed by Marga (2004). The first according to which higher education is in a "cultural shift" that makes culture the element of performance, including technologically and cognitively, depends. The development of societies now depends on the culture shared by human beings more than on their economy, technology or anything else. The second observation is that culture itself should be open for consideration, and that competitive cultures have proven open to change (Marga, 2004). The development of European society now depends on culture, and its adaptive capacity. Based on the theme(s) from a review of literature; the predominant areas throughout this research paper to be covered will include a review of educational technology acceptance across national cultures in Europe; a discussion on the adoption of a unified theory of acceptance and the cross-cultural differences and impact of technology use among undergraduate students in higher education and teachers in the STEM field.

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SECTION I - Clarification of the topic

My group members and I held a Skype meeting on Sunday, Sept 7 and a follow-up meeting on Sept 15 to ensure that we had the same understanding of the assignment and were following the correct stages for conducting the database search.

Figure 1 - Search Strategy Table(s)

Using the following search strategy, the researcher searched Guarini Library's database:
In Academic Search Premier, selecting all text (TX) and limiting the search using the following criteria:

- o Date range: 2009-2014
- o Peer reviewed articles, and
- o Only articles written in English.

cultural values		TX	(18,063 articles)
and		TX	
and		TX	

cultural values		TX	
and	technology	TX	(6,109 articles)

cultural values		TX	
and	educational technology	TX	(213 articles)

cultural values		TX	
and	educational technology	TX	
and	higher education	TX	(112 articles)

cultural values		TX	
and	educational technology	TX	

and	higher education	TX	
and	Europe	TX	(38 articles)

SECTION II

Process for selecting the articles

As I began thinking about the research for this assessment, I started off with a simple search just to get a feel of the search process. I must admit, I was tempted to go straight to the Internet and ignore the library's resources, but based on the search strategy adopted, I see that approaching research from this perspective saved me more time in the end. I like the process of searching the database because you can limit your search to retrieve the most relevant materials and you search the appropriate subject area which for me focused on educational technology.

Database: Academic Search Premier

Academic Search Premier – an interdisciplinary database that indexes thousands of popular and scholarly journals on all subjects (Hacker & Sommers, 2011). As a researcher, searching this database has been helpful in the early stages of the research process as I accessed the library's specialized database. Before I began the search process, I organized my search by setting up limits by using selections such as a date range, peer-reviewed articles and only articles that are written in English. Then I began to search the database.

Searching the Ebsco database Academic Search Premier was a time-consuming experience due to the reading and scanning of articles. In some cases, I read through the abstracts of the articles to see if they properly covered the scope of the topic and I selected items based on that criterion.

Similarly, I started searching with keywords as noted in Figure 1 which are terms that described the information needed. I also looked for alternative keywords, for example, I substituted the term "technology" with "educational technology". Then, I added other search terms to narrow the search such as "higher education" and "Europe".

Scanning through Search Results

As I scanned through the list of search results, I watched for clues indicating whether a source(s) might be useful for my research or whether they were worth pursuing. I printed my search results and made a note of my reference sources for a later review.

Searching for sources systematically

I also searched for sources systematically, so that I wouldn't lose an important one and affect the credibility of my research. Every week leading up to the due date of the paper, the researcher kept conducting searches and uncovered new materials that were not showing up in the retrieval records. This material added exponential value to the research being conducted.

As I prepare for the second assessment, part of my search strategy will also include looking for someone who knows something about the topic and finding out more about the standard sources. This could include discussions with faculty, advanced students and even people from the outside academic community.

SECTION III

Research Paper

Cultural Values and Educational Technology in Higher Education

A Review of Literature

The relationship between higher education, technology and culture is so intertwined that it is difficult to study any one in isolation. As Roger Skophammer states, defining culture is much like defining technology, in that it cannot be separated from human activity. The broadest definition of culture is the "totality of human interaction". Several sources try to narrow this definition with discussions about symbols, media, language, art, or other means of expression. Although it seems pointless to try to list every possible means of interaction as it would be to list every technology. From this definition, culture can also be seen as ubiquitous and ever changing.

The same terms—ubiquitous and ever-changing—can be used to describe technology. Some of the definitions of technology include the human-made world, tools, artifacts, systems and processes, applied science, and human innovation. Pearson and Young (2002) described technology this way: "Technology comprises the entire system of people and organisations, knowledge, processes, and devices that go into creating and operating technological artifacts themselves" (p. 3). From this definition, it can be concluded that nearly every human activity involves some form of technology.

Higher education is the third and equally important concept in discussions about culture and technology. The higher education environment is influencing the type of tools or technologies used and needed to complete some tasks, it will influence cultures as they continue to develop such technologies. The

introduction of technologies can change educational environments or influence people to move to new environments and adopt new cultures.

Universities in general are facing a crisis based on their cultural models and they must find organizational solutions. Societies in Eastern Europe, Asia, the Caribbean and even North, South and Central America are greatly influenced by culture and this activity can be an adaptive process.

Educational Technology Acceptance (ETA)

There is a cultural context of educational technology acceptance discussed by Hofstede that looks at organizational and technological culture which will either be repeated or changed by the user. Cultural patterns as described by Nistor, Göğüş, and Lerche (2013) are shared within a social environment such as nation, ethnicity or profession. Available ETA literature the researcher discovered (Leider and Kayworth, 2006) deals with national cultures, identified and compared by the geographical location of the participants. Hofstede and McCrae (2004) demonstrate that these dimensions of culture are most valuable when it comes to acceptance of educational technology.

Cross-cultural differences and barriers among undergraduate students

Cultural influences can add potential barriers to the quality use of technology among students and it is necessary for helping to make the online and higher education environment more effective and successful. While student barriers have been demonstrated to affect online learning what has been an interesting discovery from the literature is the limited research conducted on the subject. Another important factor has to do with investigating how culture affects online learning if the learners have the same primary language background but have different cultural backgrounds.

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Olesova, Yang and Richardson (2011) purports that using the 'Technology Mediated Model' (TML) can help the researcher determine the effects of cultural dimensions on the use of online communication and helps him/her examine those factors contributing to the barriers and how those factors may differ across cultures.

Technology creates cultural impact in Israel, India, Poland, Ireland, Romania and Russia

Professors are agents of cultural and social change; they also play a critical role in the dialogue process among cultures in that they are charged with the important task of training future generations and by virtue of their influence they also impact the society at large.

Some examples of barriers by cultural groups include the multicultural segregation in Israel. A question posed by Hoter, Shonfield and Ganayem (2012) has to do with what can bring people from allegedly rival groups together? What can make them cooperate? Also, "Is it possible to agree to disagree and still collaborate and respect one another? How can stigmas and prejudices be broken down?

Inter-cultural dynamics and tensions in Israel

Israel has been dwelling on these questions for decades, as it is home not only to Jewish people coming from many different countries and cultures (75.5%), but also to Arabs (20.3%), Christians (4.2%) and others (Ganayem, 2012). Israelis of diverse religions and backgrounds live close to each other geographically, but they are distant psychologically through prejudices and stereotypical beliefs. As a result, intercultural tensions and political enmities, differences, rather than similarities, are often in the forefront of public discourse and in the minds of many Israelis.

Segregation of these three groups is a common reality not only in the way of living, but also within the construction of the educational system. Educators came up with a model based on the rational of "Learning Technology Practice Co-existence" which involves course activities that employ advanced Internet technologies and are based on a collaborative learning model. Technology is an effective tool for promoting change and will continue to be an embedded creative agent for the European cultural impact.

Technology creates cultural impact in India

Through books and magazines, radio and television programs, films, art and theatre, museums and historic sites, Indian culture helps its citizenry to understand and to celebrate their lives (Nachimuthu, 2012). Television and technological advances is molding undergraduate minds and values and their way of life which is growing at a startling rate. These undergraduates are changing from the radical center of education and are adopting the mindset that their core values point to taking charge of how they should use technology and not how technology policy-making and planning by governments should influence their lives. An example of this is how undergraduates are using technology in the form of social media to look for truth and value and not to rely on what government(s) report.

Technology and e-governance in Ireland

Electronic governance is not just a means to provide better quality public services to people, but also a main competitive advantage for economies and an indicator of a country's culture and development. The European Union, having acknowledged the importance of e-governance, has set its expansion as a top priority and has adopted specialized programs for this purpose (Mylonakis, et al., 2013). This expansion naturally does not progress at the same rate for all European countries. Ireland constitutes a bright example for all European countries, as well as for Greece that still has a long way to go.

Promoting democratic values and educational technologies in Romania

"Democracy" is defined by the following terms: government of the people or majority rule (Grigorovici &

Matei, 2012, p. 613) Modern democracy in Romania emphasizes respect for human rights (equality before

law, right to an opinion, etc.), multi-party, and limitation and separation of powers in the state. Although the

term democracy is typically used in context of a political state, its principles are applicable to other

organizations or entities such as universities, unions, public companies and civic organizations. According

to a famous statement of President Abraham Lincoln, democracy means government by the people

(universal eligibility of public functions and free and fair elections, the freedom of expression and

association) but also for the people, the government that respects people's preferences (Grigorovici &

Matei, 2012). This statement is taken from the speech of Daniel Webster in 1830, which argues that

government must respond and respect people's interests. John Dewey brought the idea of the "democratic

university". He points out that school is a microcosm of the type of society that is desirable, which leads to

the idea that a democratic school or university is a pre-requisite of a democratic society. Dewey promotes

two fundamental principles underlying the idea of democracy:

1. Principle of individual autonomy: no one should be subject to rules that were imposed by others.

2. Principle of equality: everyone should have equal chances to influence decisions that affect people
   in society.

Therefore, if governments choose to encourage and even influence citizen's participation, a significant

challenge (Hendricks & Carson, 2008, p. 308) is the responsibility of growing forms of democratic

engagement which means institutions of higher education must be harmonized with governments when it

comes to values such as fairness and responsibility—especially in the area of technology.

Cultural capital and political orientations among Russian and Polish Higher Education Institutions

There is a strong correlation between the analysis of the sphere of active political involvement and the cultural correlates of the basic political orientations of college students in both cities.

Implications for teachers in the STEM field

The goal for educators is to provide meaningful opportunities for their undergraduate students to engage in cultural discussions and realize that culture will always surround their lives: personal, educational, technological and professional. Computers and other technological devices are a wonderful way for undergraduate students to be able to express their experiences, beliefs, cultures and so much more to the software experience through interaction modes.

Conclusion

One of the inescapable realities in higher education institutions and their operations and even their cultural influences is this: they cannot escape change. Over the last two decades colleges and universities have experienced dramatic changes in their values and a shift toward minimal impact in changing the culture of their societies. Most anthropologists agree that educational institutions have little or no independent influence on social and cultural change. The question will be asked; is not education itself a social force? In one sense, yes—it is a force which supports and develops the changes in social aims already decided by those in power, but it does not initiate change overall (Maddux & Johnson, 2011, p. 2). This research is based on the idea that it is possible that the concept of cultural momentum might be a useful one to consider in making predictions about which educational innovations will be successful and for which cultures. There is hope and as their curriculum is changing as a result of technological advances. As long as technology continues to penetrate society; computers, the Internet and other forms of communication

technology will not leave the university environment. Technology is the key to getting information out to the

masses but it could also be the avenue for the prohibition of progress.

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