Discerning Culture in E-Learning and in the Global Workplaces

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Abstract: This paper explores issues relating to e-learning in the global workplaces and educational contexts. The literature on e-learning often touts the benefits of e-learning as an equalizing or democratizing force in learning and education at the detriment of significant challenges facing its implementation and eventual outcomes for users. Central to the challenges facing e-learning systems is cultural challenges. Therefore the author argues the need to attend to cultural issues in e-learning if e-learning is to be successful. First, the paper addresses the different dimensions of education as described by the learning societies. Second, the paper incorporates the role of culture in e-learning, and finally, implications of culture in e-learning in the global workplaces are addressed.

Keywords: E-learning, culture, cultural challenges, virtual learning, knowledge design.

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1. Culture in E-Learning and in the Global Workplace

The race to prepare twenty-first century workers has increased the demand for a different type of education that differs from the traditional and institution-based education to prepare workers for information literacy (Jarvis, 2000; Stewart, & Kagan, 2005; Agnello & Jung, 2005). The current demand for education has transitioned to one where training is not confined to a particular geographic location, but instead, to those in which portability, mobility, and convenience are of central importance. Accordingly, information communication technologies (ICTs), such as computer mediated communication (CMC) systems, have enabled e-learning and therefore, given global organizations the opportunity to take greater control in the educational and learning needs of their employees and potential workers (Jarvis, 2000; Olaniran & Agnello, 2008; Stewart, & Kagan, 2005;).

E-learning involves a process whereby learning or knowledge acquisition and dissemination occurs within the confines of information communication technologies (ICTs) or electronic media. Jarvis (2000) distinguished between education and learning. He stresses that education is social and both public and private, depending upon the provider, whereas learning is individual and private. Education is designed to provide specified learning opportunities and is institutionalized, either as state institutions (public) or as corporate ones (private). These distinctions are helpful, however, they are not the central focus in this paper because both public and private institutions emphasize the knowledge necessary to compete and be effective in the global workplace and to remain competitive in the global marketplace. At the same time, the learning communities do not necessarily distinguish between education and learning. Instead, this paper explores learning in its general terms and as it relates to e-learning specifically. The paper, however, explores the role of culture in the e-learning environment and addresses the implications for e-learning in the global workplaces.

The idea that learning process involves keeping up with changing technologies in dynamic political economies in the preparation of workers for corporate citizenship, along with self-and social-development is helpful and has been embraced (U.S. Department of Education, 1983; Tozer, Violas, and Senese, 2004; Agnello & Deleon, 2003; Hargreaves, 2003). No discussion of e-learning would be complete without a closer look at the dimensions of education in which the e-learning is to occur.

2. E-Learning and Dimensions of Education

One of the key benefits facilitated by e-learning is that, in spite of real geographical boundaries between and among societies, there are no real boundaries in learning environments. It is argued that it is a foregone conclusion that transnational companies, among others, will almost certainly transfer practices from one area of their influence to another (McGinn, 2004; Parker, Ninomiya, & Cogan, 1999). Learning like products or services within organizations has been commoditized and disseminated via e-learning (Olaniran, 2007a). The instant sharing of information and work through technology around the world neither assures that all nations, including the United States, easily overcome the constraints, (e.g., fewer jobs, shrinking tax bases, growth of historically undereducated minority populations, etc.) that ease the transition to a globalized world or

to an education system that takes advantage of ICTs for preparing workers and preparing them well. The preparation, however, does not avoid the risks and uncertainties of the knowledge economy altogether (Fowler, 2004; Olaniran, 2007a; Parker, et al., 1999; Charlemagne, 2006; Bullen, Fahey, & Kenway, 2006; Chomsky, 2003). For example, there are cross-cultural differences that hinder and can derail the goals of e-learning in global workplaces. Nonetheless, international educational policies in the economically developed countries (EDCs) and less economically developed countries (LEDCs) are concerned with developing human capital in learning societies (Olaniran, 2001, 2007; Hargreaves, 2003).

2.1. Learning Societies

Jarvis (2000) identifies four useful dimensions of learning and learning societies as: 1) futuristic, 2) planned, 3) reflexive, and 4) market. The learning society as futuristic is fostered through the use of technologies and computers to provide equal opportunities for all individuals to receive as much education as they are believed to be capable. In a futuristic sense, the learning society approach is aimed at the central goal of allowing individuals to develop to their maximum potentials. In the planned approach, a learning society recognizes the role of governments and their institutions in offering education through either policy or legislation. The overarching goal of the planned learning society is to prepare employees for increasing national and/or global market competitiveness, competencies, widening participation, and lifelong learning. Put differently, the planned learning approach focuses on the promotion of the learning so that learners can participate in the "democratic processes" within societies (Collomb & Seidel, 1998; Jarvis, 2000; OECD Report, 1996; National Center on Education and the Economy, 2007; Olaniran & Agnello, 2008).

The learning society as a reflexive society is based on the approach that every society needs to change with the times, and as such, cultures must be altered to give way to progress. According to Jarvis (2000) as society changes, everyone in it is required to learn new ideas to keep up. Within a modern society, knowledge-based occupations are by nature reflexive as individuals are required to change with requirements of their jobs and to use new technologies and procedures (U.S. Department of Education, 1983, 2001; National Center on Education and the Economy, 2007). Consequently, educational institutions along with contemporary organizations are required to change their approach toward learning and more importantly to cultivate outside classrooms. It is no surprise that the approach has given birth to varieties of online universities (Olaniran, 2007a) and corporate universities, some of which give attention to workplace experiences. However, Jarvis (2000) also questions how long such programs will remain in the face of constant changes from outside environments. He argues that there is the danger that traditional education institutions are assuming a role in a non-educational process as public accreditation penetrates the private world (Kienle & Loyd, 2005). The opposite is also true as private start-up universities, school administrator programs, and alternative teacher certification programs become more numerous with the private business world moving into the larger and public educational domain.

The fourth approach to learning involves learning as a product of the market which subscribes to the assumption that learning can be commoditized or packaged in a way that helps foster the goal of customer satisfaction. This approach assumes that people, generally, do not want to learn because it is not fun. Thus, there is the need to make people learn by making learning a fun process (see Jarvis 2000).

E-learning mostly fits the goal of the last two learning approaches, namely the reflexive and product of the market approaches. For instance, the online university and

the Open University concepts are made possible through e-learning; they thrive on the premises of helping people meet the changing demands of modern organization and the flexibility needed in learning and knowledge acquisition without having to be present in traditional classrooms. The Open University concept, in particular, encourages learners to learn while interacting with favorite objects or desired communication media such as reading books, watching television, listening to radio, and talking to people who are considered experts on a given subject as they wish (Jarvis, 2000). E-learning perhaps makes its greatest contribution to the learning process or benefits learners by aiding learners with the aid of computers in an attempt to take control of their learning. While knowledge is still important in e-learning, there are a few social and cultural implications that remain unknown, especially in different workplace contexts and consequently influence appropriate usage. The direct implications suggest that learning takes on different forms and performs different functions in the different countries or regions of the world. Therefore, e-learning becomes an instrument for reshaping established structures and cultures altogether (Olaniran & Agnello, 2008). Similarly, it is true that in e-learning the information technology media power is being exercised in ways that are not "culture neutral" because they are based on the particular "epistemologies," learning philosophies, and orientations of the designers (McLoughlin & Oliver, 2000) . Further, there may be a gap between the learner profiles and the course materials (Economides, 2008; Hardaker, Dockery, & Sabki, 2007).

3. Cultural Perspectives on E-Learning

The different national systems impact e-learning differently. For one, the global infrastructure is not distributed evenly around the world. On the other hand, the international division of labor places different demand on education and learning along with how e-learning is structured to address the needs of the work-force. More importantly, however, the social and cultural aspects of education demand that curricula retain specific aspects of a nation's cultural heritage to retain some of its traditional functions, rather than reflect the universal theme of globalization (Olaniran, 2007a; Olaniran & Agnello, 2008; Van Dam & Rogers, 2002). Specifically, scholars have called for culturally aware collaboration (i.e., e-learning) systems (Economides, 2008; Olaniran, 2007a, 2007b). The discussion about e-learning, therefore, needs to be sensitive to culture and to explore the dimensions of cultural variability and their implications for learning and e-learning within global education.

As corporate e-learning solutions continue to gain increased popularity in the sphere of global e-learning, concern ensues about cultural standardization rather than differentiation. This creates a challenge for learners who are culturally different from the culture that develops the learning content especially when they must deal with curricula that are developed from and upon a different cultural basis. For e-learning to produce concrete results, there needs to be some consideration for effectiveness of the learning process (Economides, 2008; Olaniran, 2007a; Osman & Herring, 2007). Effectiveness of e-learning however, cannot be assessed outside of its cultural underpinnings.

In order to realize e-learning objectives, it is important to pay specific attention to learners' cultural learning needs and accommodate them in ways that promote good outcomes for the students. Attention to learners' cultures requires a look at the dimensions of cultural differences. One useful model in exploring cultural differences include the dimensions of cultural variability (Hofstede, 1980). The four dimensions of cultural variability, consists of power distance, uncertainty avoidance, individualism, and

masculinity (Hofstede, 1980, 1983, 2001). The reliability of the Hofstede's dimensions is based on the fact that the dimensions resulted from data collected from fifty countries and three world regions (Hofstede, 1980, 1983). Past research uses these four dimensions to operationalize cultural differences and their effects on uncertainty reduction in intercultural communication encounters (Gudykunst, Chua & Gray, 1987, Olaniran, 1996, Olaniran & Roach, 1996, Roach & Olaniran, 2001, 2004; see also www.worldvaluessurveys.org). A brief description of the four dimensions follows.

Power distance, which is explained as "the extent to which the less powerful members of institutions and organizations accept that power is distributed unequally" (Hofstede & Bond, 1984, p. 418). Uncertainty avoidance describes "the extent to which people feel threatened by ambiguous situations and have created beliefs and institutions that try to avoid these" (Hofstede & Bond, 1984, p. 419). Individualism-collectivism acknowledges the fact that in individualistic cultures, "people are supposed to look after themselves and their family only," while in collectivistic cultures, "people belong to in-groups or collectivities which are supposed to look after them in exchange for loyalty" (Hofstede & Bond, 1984, p. 419). Masculinity-Femininity refers to cultures "in which dominant values in society are success, money and things," while femininity refers to cultures "in which dominant values are caring for others and quality of life" (Hofstede & Bond, 1984, p. 419-420). One of the challenges to dimensions of cultural variability is that comparisons are relative and restricted to two objects (e.g., cultures, regions, countries, etc.,). Of these dimensions, the individualistic-collectivistic and the power distance are specifically useful and can serve as foundational premises for assessing e-learning and education in global e-learning contexts (Olaniran, 2007b; Osman & Herring, 2007).

The power distance dimension, which is a measure of inequality in a given culture, suggests that in high equality culture which tends to be more focus on self and individual identities and rights (i.e., individualistic), the expectation is that knowledge is shared or distributed equally across an organizational structure. For example, the high equality culture tends to focus on the idea and premises of using ICTs to bridge and empower learners. For instance web-based instruction and recently, Web 2.0 technologies are offered as ways to put learning in the control of learners rather than the instructor (e.g., Dron 2007). The democratic ideals are however more cherished in the United States and other European countries when compared to other cultures (Agnello & Olaniran, 2008; Economides, 2008) and create the foundation for stressing e-learning systems' benefits. In a high power distant culture, which often shares similarities with collectivistic cultures, emphasis is on the level of relationships in groups or a given context, but more importantly however, the expectation calls for telling strategies where authority (i.e., teachers) are primary source of knowledge and their job is to impart knowledge to students. For example, Lanham and Zhou (2003) point to studies that acknowledged distinct differences in power distance in cultures and students' e-learning experiences and preferences. For example, knowing or learning for Asian students implies the ability to remember, repeat, and reproduce or recite (i.e., rote memorization) information as presented by instructors, hence is instructor centered – whereby students rely on and hold great respect for teachers, and to ignore information from instructor is considered disrespectful (Conlan, 1996; Lanham & Zhou; 2003; Munro-Smith, 2002). Individualistic culture, on the other hand, suggests that in high independence culture, there is a sense of controlling one's destiny as far as career and work choices go (i.e., freedom to choose). But in collectivistic culture (group oriented) the success of the group is more important. For example, studies found that both Australian and American students exhibit individualistic cultural tendencies – where students challenge and question information from instructors (Economides, 2008; Lanham & Zhou, 2003). Similarly, another study

looking at U.S.A and Finland identified differences in student participation levels between the two cultures. American students were more talkative than the Finnish, and they tended to talk about social issues stating their ideas and opinions on the issue whereas the Finnish students only responded when they felt that they had something worthwhile to discuss and in general, are more theoretically driven (Kim & Bonk, 2002; LeBaron, Paulkikinen, & Scollin, 2000). Therefore, e-learning environments where students are asked to apply their own knowledge will be perceived countercultural and hence create difficulty for students (Economides, 2008, Lanham & Zhou, 2003; Olaniran, 2007a; Ramburuth & McCormick, 2001). The Masculine-feminine dimension describes the idea of work-life balance where work-focused countries require achievement and recognition, that people "live to work," whereas in a "life-focused" culture, work related issues, including learning, must be performed within the context of life; in essence, people "work to live." For example, Agerup and Busser (2004) found that U.S. students focused more on specific deadlines and project requirements while Japanese students worked on projects in a manner that showed hierarchical relationships with their instructors. Furthermore the study found that Japanese students view U.S. teams as fast, stressful, and unstructured, while U.S. students viewed their Japanese counterparts as conservative and unemotional. Similarly, Teng (2007) found that U.S Students in comparison with Taiwanese students were more expressive and significantly spent more time at work and displayed greater urgency to complete group task.

Despite opportunity for increased learner participation facilitated by e-learning technologies, most cultures remain high context and power distant (e.g., African countries, Japan, South East Asian countries). In a high-context culture, information is internalized in the person or situations, while power distant cultures recognize or accept the fact that power is not evenly distributed (see Hall, 1976; Hofstede, 1980). The cultural categories have implications for implicit and explicit communication tendencies and the general propensity to use technology in e-learning and other global contexts (Olaniran, 2007a, 2007b). Therefore, cultural factors tend to influence how individuals use or view communication technologies and interpretations they draw from messages through technology media (Economides, 2008). Specifically, Devereaux and Johansen (1994) argued that it might be difficult to get people to use certain technology including e-learning and learning management systems in power distant cultures where status dictates every aspect of interpersonal communication.

Although, others (e.g., Ess, 2002) have argued the "soft deterministic" effect of technology – implying that every culture tends to find ways to adapt technologies to their cultural communication patterns, none disputed the fact that cultural differences affect technology adoption and use (Olaniran, 2007a). For instance, in African culture, where significant emphasis is put on relationships, it was found that when e-mail was used in communication, organizations were in the habit of falling back on traditional media such as face-to-face or telephone as a back-up to ensure that the message is received (McConnell, 1998), and the intended meaning has been achieved (Olaniran, 2001, 2007a). The Japanese culture, for example, pays specific attention to the idea of culture when using communication technologies. Heaton (1998) points to the fact that if communication technologies are to be useful in Japan, it is important that a familiar sense of atmosphere or feeling must be conveyed through technologies. She illustrates that research on computer supported collaborative work (CSCW) systems in Japan suggests that it is problematic for groups to use them without first meeting face-to-face to establish a trust environment and connection (see also Barron, 2000; Ess, 2002; Mason, 1998). Another scholar addresses the non-participation by the Japanese in e-learning by attributing it to their culture (Kawachi, 1999). Specifically he focuses his arguments on

the nature of Japanese language which is developed early in life and considered as conducive to right brain learning mode (i.e., visual and memorization skills) when compared to left brain (i.e., analytic and argumentation skills) along with their lack of proficiency in English (Kawachi, 1999). Accordingly, the Internet is primarily used for searching and printing out information for reading or translating off-line and secondary for entertainment and games (Kawachi, 1999).

In relation to language, it is suggested that the potential for information overload exists because non-native speakers read at slower speed than native speakers. For instance, Chinese-English bilinguals read English at 255 words per minute compared to the Chinese language rate of 380 words (Chambers, 1994; Wang, Inhoff, & Chen, 1999). Kawachi (1999) speculates that the English reading rate for Japanese is slower than the figure for the Chinese, given their English proficiency and learning styles. In Europe, the language barrier is seen as a hindrance for rapid adoption of e-learning. The language barrier results in increased call for "native-language" content development for local companies that are not willing to adopt English (Barron, 2000). Similarly, a language barrier often results in cultural pride which often negatively sensitized potential users in the adoption process, and at times, put imported technologies and learning systems at a disadvantage in competing with locally developed e-learning content and providers or systems (Olaniran, 2007a).

In general, the challenge is that there does not appear to be a technological and cultural fit in the diffusion of some westernized technology (e.g., Economides, 2008; Green and Ruhledder, 1995, Lanham & Zhou, 2008; Mesdag, 2000). Specifically, from the global e-learning standpoint, the learning content needs to match the needs of users. Thus, the key to resolving cultural problems with technology use especially in the e-learning environment is to recognize cultural differences and associate technology use with the existing cultural values, structures, and activities in the different workplace settings. The differences in cultures are not easily reconciled, and sometimes, the imagined cultural differences create psychological barriers that can be just as real as physical geographic boundaries (Popkewitz, 2001).

Central to culture challenges in e-learning in the global arena is language differences, where it is noted that majority of online and e-learning materials are in the English language (Barron, 2000; Olaniran, 2007a; Van Dam & Rogers, 2002). English based content discourages some would-be Non-English speaking learners to assume that e-learning is not for them. Also, in situations where people speak English as a second language, its use is restricted to specific contexts. For instance, it is not uncommon to find people elsewhere restricted in their English usage to work settings, while for the most part, local language and other dialects still characterize most of their daily interactions. It has been acknowledged that learning in a second language through school is quite different from simply learning a foreign language itself (Collier, 1995).

Along the lines of language, about 40% of online users indicated that they would prefer a language that differs from English (Van Dam & Rogers, 2002). In a study looking at the global e-learning program offered by Cisco in English language, students who use English as a second language indicated that they prefer their instructors to first overview the contents of chapter in local language before they are assigned (Selinger, 2004). In global e-learning curriculum it may also help to note that even when curriculum is made available in languages other than English, there are different variations in languages. For example, Cisco provided the French and Spanish versions of its e-learning course. Unfortunately, the French version was in the Canadian French, while the Spanish version used the South American Spanish, both of which differ from

their European versions, hence, creating problems for students from France and Spain accordingly (Selinger, 2004).

From a different perspective, Sitkin, Sutcliffe, and Barrios-Choplin (1992), found that CMC technology has symbol carrying capacity such that often the users are presumed to have specific status in using it. This argument appears to have validity as computers and telephones in certain societies put people who own or use them in the elite category of that the society (Olaniran, 2007a). Few cultural implications are presented to help in this regard. First, people in harmonious cultures are members of a 'social network' where conflicts are handled in a non-confrontational manner despite the contexts. Second, the hierarchical structure (i.e., power distance) in a culture makes the use of technology a status symbol. Third, oral tradition in certain cultures, puts planned and organized face-to-face meetings, visits, and the telephone as primary modes of interaction, while e-learning (or written tradition) are problematic and are hardly ever used (Barron, 2000; Olaniran, 2001, 2007a, Nulens and Audenhove, 1999). For example, Lanham Zhou (2003) found in their study evaluating effects of culture in collaborative learning technology between Australian and Asian international students, that most International Asian students expressed preference to work in groups with friends with similar cultural backgrounds.

Dunn & Marinetti (2007) points to cultural problems in e-learning technologies. For instance, when giving corrective feedback to learners in some East-Asian cultures, the use of red color is considered inappropriate. They argue that red is good luck color, unlike in Western culture where it suggests problems and errors. Similarly, they caution against the use of white color when designing a relaxing entry page for Japanese online module for effective employee relationships, because in Japan white is the color symbol of mourning.

Selinger (2003) in evaluation of the CISCO Networking Academy e-learning platform that involves over 300,000 students from 149 countries found some significant cultural effects. She found that students in Denmark and Sweden require the need to take greater responsibility for their learning than those in France. The finding is in line with the low power distance of Hofstede's dimensions where Scandinavians are ranked lower than the French. Along the cultural differences in e-learning and Global Workplace, Edmundson (2004) finds that learners in an Indian office of a global organization have different motivation, a level of support for collaborative learning, learner control, and teacher roles when compared with their Western culture counterparts.

4. Implications

Culture presents significant challenges to e-learning in the age of globalization. However, the challenges can be ameliorated with attention to cultural needs of the users. Consequently, there is the need for adapting technology use to the cherished cultural values and societal norms. This is a requirement for organizational vendors and e-learning providers. For example, Olaniran (2007a) argues that the need for individuals in a collective culture to maintain close contact with families and loved ones is a common thread that can be explored in getting potential users to adopt a new technology. Perhaps this is one of the reasons the need for personal contact with someone (teachers and students) during learning was stressed by users in e-learning environment (e.g., Henning, 2003; Vaughan & MacVicar, 2004). At the same time, the need to contact instructors for approval and validation to determine whether students are on the right track is also

important to student-instructor interaction in e-learning setting (Lanham & Zhou, 2003). For example, the impacts of feedback and questions on learning have been noted. In class questions by Asian students are attributed to desired grade performance and knowledge, whereas, this was not the case in U.S. but instead outside of class questions are positively correlated with performance and grades in the U.S. (Hwang, Francesco, & Kessler, 2003; Lanham & Zhou, 2003). Attention to differences in the oral tradition of certain collectivistic cultures and the non-oral tradition's emphasis among individualistic cultures has different implications for E-learning. For instance, E-learning in oral tradition cultures may be better to allow more interpersonal interactions where students and instructors get to explain ideas to one another, whereas the concept of self-paced independent focus for e-learning might succeed in non-oral tradition cultures. These differences can also influence the use or choice of technologies in e-learning (e.g., Economides, 2008). The following example reinforces this recommendation. It was reported that some instructors from U.K. (i.e., non-oral culture) were effective in e-learning contexts when they use PowerPoint for presentation delivery; while their counterparts from United Arab Emirates (UAE) saw PowerPoint as unnecessary work that fails to incorporate the oral culture tradition of students given the chance to explain ideas about what they are studying to one another (Selinger, 2004). Lanham and Zhou (2003) reinforce this idea when they observed that Singapore students though adept in ICT showed preference for face-to-face communication.

Just as organization goals for e-learning are important in terms of cost and content, so are users' needs, which should accommodate users' cultural perspectives and learning preferences. Vaughan and MacVicar (2004) conclude that e-learning is doomed for failure when learners' cultural needs are not carefully considered. Therefore, the need to take into consideration access to infrastructure and accruing costs. Olaniran (2007a) indicates that Internet access charges often hinder learners from accessing e-learning curricula. Provision must be made for learners to access the e-learning systems (e. g., Internet/world-wide web) at corporate sites. This should be done even when it means spending a significant amount of learning time with students familiarizing themselves with the curriculum and technology. One alternative is for e-learning providers to begin to design or push e-learning content to mobile devices that are more affordable than computers especially in the developing countries. In situations where students need to work together in groups in order to sort out their difficulties, it would be ideal for the e-learning instructors to allow learners to have each others contact information (e.g., instant messenger where available) and also those of their instructors (if appropriate).

Students should never have to feel like they are lost at anytime. As consideration for end users' needs in e-learning, it is imperative that the teacher's toolbox provided by the content provider accounts for cultural differences as well. This is done haphazardly when e-learning contents are provided by individuals from different cultures, thus rendering the toolbox irrelevant and abandoned by intended users. From another standpoint, there is a need for cross cultural design of e-learning materials. For example, there is a need to encourage more e-learning and online materials that are specifically customized to the needs of cross cultural participants rather than those designed for a particular culture but are applied or used by learners from yet a different culture (Collis and Remmers, 1997; Olaniran, 2001). E-learning systems that aim at allowing cross-cultural participation can assist competent cross-cultural educational goals while helping the global workforce training needs and demands that are essential to multinational corporations (Economides, 2008; Lanham & Zhou, 2003; Olaniran, 2007a, 2007b). Another way of correcting the problem of inadequate attention to cultural challenges in e-learning is to have inputs from potential users prior to design than after the fact. In order to do this the physical world of learners needs to coincide with tools, signs, and symbols of the e-learning world. For

example, it is important to identify language that may be offensive depending on culture and to adapt technologies in a way that accounts for how different cultures' learning differ. To this end, it is suggested that simple visual materials such as icons, sounds, and menu can be replaced by local word or sign and discussion tools do not have to adhere to strict structural format but instead offer innovative way that may not necessarily follow a logical thread (Lanham & Zhou, 2003; Selinger, 2004; Van der Westhuizen & Henning, 2001).

Blended learning involves the combination of characteristics from both traditional learning and e-learning environments (Chesterman, 2002; Lanham, & Zhou, 2003). This may include e-learning settings that offer combination of streaming audio, video, synchronous and asynchronous communication in addition to face-to-face learning. An e-learning environment should never have to be an either/or but rather combinations of approaches and tools that helps individuals gain the benefit of technologies while maintaining their cultural learning styles and preferences (Economides, 2008; Olaniran, 2007a). Specifically, collectivistic culture learners are more interested in group-oriented group identity (Chang & Lim, 2002); they consider relationships to be more essential than the task (Trumbull, Rothstein-Fish, & Greeneld, 2000); they rely not only on text or words but on nonverbal cues like gestures, time orientation, and facial expressions (Francesco & Gold, 1998) when compared to individualistic culture learners.

Furthermore, it is imperative for e-learning content providers (in house or third party) to realize that they are cultural change agents and thus, successful change is fostered by making the change process for end users as smooth as possible. In essence, making sure that the changes align with specific cultures would go a long way to accomplish goals. One way of doing this is that, while the curriculum contents may be universal in its goals, the process for accomplishing identified goals requires culture specificity or difference. Furthermore, Olaniran (2007a) suggests that teachers of foreign languages can also serve as leaders who can assist in facilitating the change process using the e-learning curriculum as a tool for foreign language learning (e.g., English). After all, end users planning on working in the information technology area usually are in organizations where English is spoken and there is the need to learn the language anyway. One advantage to this approach is redundancy reinforcement - a principle considered to be necessary for successful diffusion of innovation in order for novel users to make the change permanent or engage in continued usage (Olaniran, 1993). He cautioned, however, that this process should never be considered as a substitute for making e-learning contents available in a manner that conforms to specific local cultures from the beginning.

Along language needs, the use of translation software has been suggested (Selinger, 2004) but this software is not readily available across contexts and more importantly, it is still lacking in precision and accuracy. A valuable approach is to collaborate with other change agents who can help organizations with their e-learning projects in conveying information and persuading end users that the use of technology (i.e., e-learning) would help in achieving other valuable goals such as learning English or other foreign languages (which could also be necessary to advance students' respective careers). The goal of education and partnering in reducing the digital divide should be in preparing students and teachers in a way to master new skills that current programs may not address. Some of these skills include the ability to collaborate with a diverse team of people in both face-to-face and distance environments in order to achieve different tasks and goals. Making technology available to students and teachers would help them acquire and develop the skills and knowledge (Dede, 2000), which are necessary in today's globalize economy.

There is also the need for readily available supports for e-learning programs. Nothing is more frustrating in the adoption process than for the individual to feel trapped with no help in moments of need. Consequently, e-learning will be better served especially in culturally diverse environments to provide communication tools and social settings, such as virtual classrooms for peer supports as well as fostering competent management in planning, implementation, learner tracking and certification issues (Brussee, et al., 2003; Olaniran, 2007a). This effort is important because it can improve and speed knowledge transfer mechanism even when learners or participants are spread across the globe. The reason is that the social setting or virtual classroom provides a support group where learners can attempt to discuss or resolve some problems on their own. For instance, Sarker (2005) found that U.S students (i.e., individualistic culture) developed a better sense of community and close relationships with their Taiwanese group members.

The choice and selection of the technology medium in e-learning should be done with significant consideration for different cultures. For instance, it has been shown that in Korea and Japan, e-mail usage is only common in peer interaction but not in superior subordinate interactions (i.e., power distance). Thus, preference is shown for alternative media such as phone, fax, and face-to-face when communicating with superiors in order to acknowledge and convey respect (Lee, 2002; Olaniran, 2004). Western cultures do not share similar perception of respect and do not perceive the use of e-mail between subordinates and superiors to be rude. In essence, the role of culture and the complexity it can create in e-learning and other virtual collaboration work cannot be over-emphasized. For example, Thai students were found to avoid lengthy communication about new and difficult concepts with their remote participants, while their U.S counterparts consider it ineffective communication (Sarker, 2005).

At the same time, the choice of technology medium for disseminating e-learning curricula points to the fact that "technology for the sake of technology" is not a sufficient criteria for driving interest or motivating learners' interests in acceptance of and satisfaction with e-learning or the intent to use technology. Rather, it is better when the technology innovation in learning context supports communication and interaction between learners and builds a social climate that fosters knowledge exchange (Brussee, 2003) and retention of learning in order to secure commitment and acceptance from users (Gallagher, 2003; Hamlin, Griffy-Brown, & Goodrich, 2003; Olaniran, 2007a).

5. Conclusion

This paper explores e-learning as a way in which modern and global organizations manage their education and knowledge needs both in traditional settings or in-house customized training needs for their workforces. The paper highlights and discusses the differences in cultural preference and dynamics of communication interactivity along with how these influence learners' learning styles and preferences. Implications from the challenges of cultures in e-learning environment were addressed and suggestions regarding what to do to resolve some of the identified challenges were addressed as well.

It has been argued here that learners and students at large bring their cultures, values, beliefs and norms into a given learning environment especially e-learning. Research cited has shown how learners have learning style preferences that differ across the globe and that failure to recognize some of the specific cultural learning differences can defeat the goal of any education and e-learning. Particularly, collectivistic learners exhibit learning styles that are more group based and relationally oriented and often e-learning

technologies are designed from and with the goals of supporting individualistic cultural learning styles such as individual freedom and identity with emphasis on task goals than relational goals.

Furthermore, cultural differences influence and affect communication interaction such that participation and collaboration over technology media are directly affected. Arguments made here indicated that it is easier for U.S. students to initiate conversation and speak more openly online than it is for Taiwanese and other Asian students. Furthermore, U.S. students expressed greater level of satisfaction with online message posting and participation comfort with difficult subject matter. Therefore, until students from non individualistic cultures are at a point where they can find similar levels of comfort and satisfaction with e-learning technologies in a way in which they do not have to second guess their participation and communication interaction, they will continue to express anxieties within e-learning media. In summary, the different learners' cultural backgrounds affect participation, motivation, satisfaction, and overall performance in e-learning environments.

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