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# The Advantages and Disadvantages of Online Education

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Abstract

This paper will research the aspects of online learning in today's "Knowledge Society" (Drucker, 1993, p. 8). Distance learning opportunities have become available from anywhere in this new digital age of society. Online learners appear in the form of self-taught intellectuals, college students obtaining a higher education, home schooled students, and established professionals seeking continued education. In the excitement of this new educational trend, most of what is advertised is encouraging and seemingly ideal for today's busy student. However, there can be disadvantages to online education, too. These advantages and disadvantages not only affect students, but instructors and educational institutions as well. A wealth of information exists on this topic when exploring higher education and particularly, its implications for students. In addition, many studies are also available regarding the topic of K-12 online education. Scholarly academic writings were the primary source for gathering the information about this vast subject. Conclusions about online education regarding the impact of the identified implications on students, instructors, and institutions are offered.

***THE CLASSIFICATION OF ONLINE EDUCATION***

Online education, e-learning, web-based education, mobile learning, distance learning—there are many different terms that refer to the education that is available in today's globalizing, information-based world often referred to as the "Knowledge Society." Other widely used, interchangeable terms that often reference this new era include the "Information Society" (Feather, 2008, p. xx), the "Information Revolution" (Hanson, E. C., 2008, p. ix) or the "Digital Age" (Beetham & Sharpe, 2007, p. 6). The Knowledge Society, although still in its budding stages of existence and reign, offers seemingly endless possibilities for innovation and change. Advancements in technology, most importantly the Internet, have changed the way we live in every aspect of life. Households in America have computers and Internet access like never before.

Education is one of the areas in society that has been significantly transformed, thanks to computers, Internet, and other enabling media gadgets. The possibilities that distance education offers to students, faculty, and institutions have created a mounting number of online enrollments over the past decade. "Distance education flourished in the United States for three reasons: 1) the great distances of citizens from educational institutions, both geographically and socio-economically; 2) the thirst for education; and 3) the rapid advancement of technology" (Casey, 2008, p. 45). This paper will explore this new phenomenon of online education, and examine what exactly are the pros and the cons of this knowledge trend, for students, instructors and institutions.

For the purpose of this paper, online education will need to be further defined and limited. Anyone who is seeking education about a topic can gain information from the Internet or other research sources. Therefore, in actuality, an online education could refer to an individual's attained knowledge that is self taught from their own online endeavors. It goes without explanation that use of the Internet can be advantageous for anyone to access desired information using the endless World Wide Web. Many people today choose that route, and are more educated due to their knowledge attainment from virtual sources and websites. Certainly, while the self-taught learner is not to be undermined, there is a lack of scholarly studies that examine this particular learning experience.

Perhaps the type of online learning that has gained the most attention as the Digital Age has emerged is in higher education settings.  Online schools for college-level education are vast and diverse, and expanded much more quickly than that of K-12 providers. Many age groups are involved in the world of higher education, including both traditional and non-traditional students.  Young adults still attending high school can enroll in college classes, as well as high school graduates seeking to further their education. Non-traditional students could include a full-time working parent acquiring a professional degree, or even an elderly person attending college for personal goals and fulfillment or an additional education. Even as early as 2003, more than 80% of higher education schools were offering online education in various realms of study (Allen & Seaman, 2003, p. 11). Higher education that is offered online certainly has its advantages and disadvantages, and influences different people in different ways. Table 1 lends perspective to what higher education qualities consist of in this new age of online learning in

comparison to the qualities of traditional education. The characteristics are quite unlike traditional standards, and therefore, can explain why there is much to be examined on the topic of online education.

Another way that online education is growing is in the area of home schooling with the K-12 student population.  Online learning provides an alternative to public school enrollment or physically attending a brick and mortar class setting. This trend is on the rise among school-aged children and young adults. In 2007 nearly 1.5 million students in the United States alone were home-schooled (National Center for Education Statistics, 2011). "According to the 2006 *Keeping Pace with K-12 Online Learning* study (available on www.NACOL.org), 38 states have now established state-led online learning programs, policies regulating online learning, or both" (Watson, 2007, p. 5). Students are logging into classes more than ever, acquiring knowledge through use of computers and the guided teaching of their instructors. This online experience is able to demonstrate key components of the Knowledge Society for the future workforce, such as virtual collaboration, the production of knowledge, and the value of technology. In 2007, Michigan became the first state in the United States to require that students have taken at least one course online in order to graduate (Watson, 2007, p. v). The implications of children participating in online classes instead of traditional, physical classrooms carries high levels of interest, and research on this topic is on the rise. Online learning among children and adolescents shares many of the same implications with adults in higher education, and these will be observed when relevant.

Another way that online learning occurs includes continuing education. This is important to mention because in a Knowledge Society, this is a fundamental aspect of reputable "Knowledge Workers" (Drucker, 1993, p. 8). Most career areas today require ongoing training and knowledge to be gained by its workforce, no matter how insignificant or essential a job might seem. A suitable amount of continuing education topics for any given occupation seems to be available online. This type of distance learning certainly deserves its place in the online education category. It undoubtedly shares many of the same characteristics of formal education in the K-12 and higher education realms.

Understanding this fairly new trend of online education involves looking at recent studies, statistics, and perspectives. Current practices in online education involve a completely different outlook on learning and teaching from past generations. The new idea behind education today is that students learn best through "student-centered learning." This concept involves each student taking responsibility for his or her own path of learning. The online teacher acts more as a facilitator of knowledge attainment and collaborates with the class to engage in the learning experience. There is valuable information to be gained from the student, instructor, and institutions' perspectives regarding education's shift towards technology and online learning. Many upsides to this topic have paralleling downsides. The next section will consider the advantages and disadvantages for students involved in online education.

### THE ADVANTAGES AND DISADVANTAGES FOR STUDENTS

Online learning for students can be a rewarding, enlightening experience for today's motivated learner. Millennial students, the largest concentration of the student population, are

able to learn in their element of familiar media. Quality, cognitive learning can be accomplished through online courses. Students are able to attend institutions from across the globe without actually leaving their current physical location. This can allow diverse, satisfying relationships to develop between fellow students while increasing each student's cultural knowledge and awareness. More individual attention—according to the students' request and need—can also be gained from online classes. Students can be in contact with their instructor about questions that may not be feasible to consider in the timeframe of a campus-based course. Time spent in a conventional classroom as well as time commuting to and from a campus is eliminated when students partake in online learning.

Some majors in college are ideal for online instruction. These majors are typically offered more in online programs compared to other disciplines. Such concentrations as business, liberal arts and sciences, general studies, humanities, and health professions and related sciences show the most presence online (Allen & Seaman, 2008, p. 12). Socialization opportunities and the chance to professionally network with other people online is also a highlight of online education. The ability for sensitive issues to be discussed in an online setting can also allow for students' candidness and therefore, act as a catalyst for learning. Students that may typically be introverted in a physical classroom may also benefit from online courses and feel more comfortable to assert themselves in virtual forums. Lastly, students with disabilities can benefit from online learning opportunities. It can be more convenient physically and mentally for students with disabilities to access the course and its information at their own

pace. The rest of this section will examine more specific research on these ideas about online learning, and highlight the implications involved for online students.

Certainly, there are different things to be learned from the varying age groups that participate in online education. Students from different generational time periods would predictably have varied responses to certain methods of learning. It would be *expected* that a group of "Baby Boomers" would likely find classroom learning more comfortable, while the "Millennials" might actually prefer a completely online learning program. Interestingly, the flexibility involved in online programs could be more appealing to non-traditional students, since they are often juggling families, children, and full-time jobs during an online education.

Millennial learners in particular, which are the majority of today's student body, are a diverse group of individuals. As Dzubin, Hartman and Moskal (n.d.) describe them, these students are complex individuals, taught through life-long media exposure to "challenge any tradition, value, or person they choose" (p. 3). These students are often more proficient with technology than their course instructor. So perhaps it is reasonable to question whether or not the Millennials are satisfied or actually even learning through these online courses facilitated by their (perceivably) less skillful elders. Dzubin et. al. (n.d.) point out that Millennials tend to use technological resources outside of class (i.e. blogs, forums, and other online sites) and compare the information they find on their own with their professors' notes, in order to gain their own knowledge on topics. Millennials are truly a new generation of learners who manage their knowledge from the vast resources offered in today's Knowledge Society. While they do benefit

from online education, they also tend to seek knowledge elsewhere besides the online

classroom.

Regarding higher education, Millennials are the students fresh out of high school and

assumedly eager for the "college experience." Online education's growing presence could

perhaps change what the "college experience" actually means to young college students.

Today's students "multitask and prefer visuals to graphics and text. They are intricately

connected or networked via cell phone, blog, Facebook and YouTube, thriving on instant

gratification and preferring games to work" (Black, 2010, p. 95). Millennials generally find it

difficult to sit through class and be restricted from access to their online networks or media

outlets. As a result, perhaps the college experience of Millennials and generations to come may

take on new meaning and shape. While research on this topic seems scarce, a potential

outcome could be that new students prefer online learning for the student-centered education

it provides. Therefore, they create their own college experiences via social networks and

connections outside of a physical campus environment.

It is also important to observe the online learning experiences of non-traditional

students. One study that was completed by the Education Administration and Supervision

Program at Hunter College in New York in 2001 did this. The research involved a class of 23 *non-traditional* students with a Master of Arts degree in teaching and seeking further certification

through an "Administration and Supervision" course. Eighty percent of the students were

female and 25% were a minority, and the average age of the students was thirty-seven years

old. Eight of the students were familiar with online classes due to previous coursework

(Picciano, 2002, p. 26). The study aimed to determine how the students' performance was related to student interactions and presence in the course. Results revealed that, regardless of age or measured interactions; there was a strong relationship between the students' perception of interaction and their perceived learning. If students were able to accept the effectiveness that online interactions and virtual presence had to offer, then their performance seemed to increase (Picciano, 2002, p. 31).

Online education has the potential to offer a valuable cognitive learning experience.  A popular topic of study regarding distance education versus classroom learning is the evaluation of affective learning (student satisfaction) and cognitive learning. These were the key factors of interest in a study conducted throughout 2004 and 2005 at Stanford University. This project evaluated an engineering course (graduate level) that was offered in 2004 remotely and traditionally in 2005, in an effort to gain insight about learning acquisition (Freyburg & Mackey, 2010, p. 24). The same instructor facilitated both classes, and a mix of men and women, all over the age of 18, occupied the classes. The distance learning class involved live audio, video feeds and Microsoft Power Point lectures. The traditional class was conducted in a lecture hall with no technical equipment, just the instructor accompanied by an assistant. Findings indicated that student satisfaction—or affective learning—could have been influenced by in-class interaction, but only based on each student's attitudes about interaction and its role in their education (Freyburg & Mackey, 2010, p. 33). For example, students who were accustomed to passive learning environments may not have seen the value of interaction and affective learning as it related to their ability to learn. Healthy, immediate interactions are known to

foster higher affective learning qualities. This type of learning can be hindered by distance and decreased availability. Research also indicated that out-of-class interactions in traditional classes (i.e. during breaks or after the class) accounted for most of the total interactions with class members (including the instructor) (Freyburg & Mackey, 2010, p. 33). Audio difficulties had a negative effect on the distant students' interaction more so than visual difficulties (Freyburg & Mackey, 2010, p. 33). Finally, this study concludes that students' cognitive learning was not increased or decreased by factors such as social presence or affective learning (Freyburg & Mackey, 2010, p. 33). Final grades of all students did not point to differences in learning extent. Ultimately, the Freyburg and Mackey research indicates that knowledge attainment in either traditional classrooms or by distance is enhanced by affective learning, *or* alternate tactics to replace social presence and interactions (p. 33). Therefore, if immediacy is unavailable during distance learning, it is suggested that students may be compensating for this difference through other means, such as peer discussions or independent study. This information implies that if students in online settings are able to compensate for the lack of affective learning available, then their quality of learning will not be compromised.

The article, *Traditional and Non-traditional Students in the Same Classroom? Additional Challenges of the Distance Education Environment* by Robert A. Schuhmann and Tracey A. Skopek (2008) explores the issue of affective learning online. While the level of one's cognitive learning may not be affected by the online learning experience, affective learning is not addressed effectively in the virtual setting. Aspects of affective learning are a critical value to one's development as a future professional. Some students may compensate for the lack of

social dimension in online learning. Traditionally, instructors could address this component face-to-face with their students, and even model or practice methods in the classroom. Online methods, even if using interactive television, simply do not compare to face-to-face interactions. Social closeness not only to the instructor and student, but among students, is also important to observe. Schuhmann and Skopek surveyed six classes of students in the University of Wyoming Master of Public Administration (MPA) program throughout 2005-2007. The average age of the students was 36, with 53% of the students being female and 47% male (Methodology section, ¶ 3). Over 85% of the students claimed they were either satisfied or very satisfied with their attention from the instructor (Findings section, ¶ 2). On the other hand, with regard to peer interactions, over 79% claimed to have little or no interaction with other classmates (Findings section, ¶ 3). Social networking capabilities are an important characteristic in many professions, including MPAs. That these opportunities may be lacking so much in online education is cause for concern. The lack of social presence is definitely a disadvantage of the online education method.

With regard to primary and secondary educational settings, the penetration of online learning is slightly different than that of higher education. For instance, blended learning seems to be more common in primary grades, while strictly online learning for a majority of class time seems to be increasing for high school students. Blended learning involves a mix of online and face-to-face learning. While children are still learning about technology and software capabilities, blended learning can be most helpful for younger students. Younger students may not be able to construct alternative methods for affective learning, and a blended setting can

offer both cognitive and affective learning possibilities. Socialization in the form of regional field trips, extracurricular groups, or class projects is provided through some online education providers for K-12 students (Watson, 2007, p. 18). While these types of socialization opportunities are not comparable to the daily presence of traditional schooling, they are at least an attempt to decrease the potential isolation of students participating online. Students' affective learning is addressed briefly when socialization opportunities are accessed throughout the learning process.

Online education offers convenience factors for students. Geographically, students can now attend a school of their choice across the globe from the comfort of their own home. This is beneficial because it allows the student to take more control of his or her education—as he or she determines where, when, and at what pace to tackle a course. According to the Sloan Consortium's 2007 report, *Online Nation: Five Years of Growth in Online Learning* (Allen & Seaman, p. 21), educational institutions' top two reasons for offering online courses is to 1) increase student access (63% of schools rating this as "very important"), and, 2) attract students from outside the traditional service area (53% of schools rating this as "very important").

Could offering online courses to the student population actually contribute to a larger social divide in the world? This point is brought up in the 2004 article, *A Comparison of the Advantages and Disadvantages of IT Based Education and the Implications upon Students.* This concept parallels the idea of the Digital Divide, which asserts that not all citizens have equal access to the Internet, therefore creating a divided society based on Internet access. There is a

similar fear of a possible social divide that may result from the growing trend of online learning. "Those with regular access to technology have the chance to further their education and in turn benefit employers and business organizations, yet those less fortunate who cannot afford access to the required technology are continuing to be disadvantaged" (Green, O'Donoghue and Singh, 2004, p. 71). While it does not seem to be a fair situation, the reality is that online learning does require extensive access to a computer and Internet, in addition to the regular costs of traditional school fees and tuition. Accessing a school library's computers and Internet connection may be an option for the traditional student if these are unavailable in the home. However, online classes require that these resources are much more readily available to the student. The social divide of online education is definitely a topic where there are both benefits and challenges of the increase of online education, depending on a student's financial resources and social status.

Students in K-12 education are also subjected to the concept of the "Digital Divide." Watson (2007) addresses this issue in the *National Primer on K-12 Learning*: "Some online programs address these digital divide issues by loaning computers, printers, and other tools to students, and providing a place for students to work. Other programs work with local schools to provide computer and Internet access. However, the digital divide is likely to persist, and online programs must remain aware of and focused on these issues" (p. 22). Watson also relays information reported by the National Center for Education Statistics in 2003—that more Caucasian students have access to computers and Internet as opposed to their Black or

Hispanic counterparts (p. 22). Further research was conducted on this particular topic in an

attempt to find more recent figures on racial differences, but no data were located.

Karine Barzilai-Nahon, a researcher from the University of Washington, advocates for

more details on the Internet access of students in the public school system. Tucker quotes

Barzilai-Nahon's argument, that, "counting the number of computers in a given public school

provides a false sense of how many students are able to access the Internet" (2007, ¶ 2). Many

students that attend a school with computers and Internet access actually use the Internet little

to none outside of the classroom.  "According to the U.S. Department of Education, only 37% of

students from families with incomes below $20,000 are able to use a computer at home, while

88% of students from families with incomes beyond $75,000 have regular Web access outside

of the classroom" (Tucker, 2007, ¶ 2). These statistics indicate a need for more specific research

in the area of the digital divide as it relates to the education of students in the K-12 population.

High school students sometimes enroll for additional courses, such as college

preparatory classes to increase their education. Brenner points out, "The greatest need for

distance education and educational opportunities that differ from the regular metropolitan

high school are for those public education facilities that are farther away from higher education

facilities or access is limited due to lower socioeconomic situations" (2007, p. 29). Brenner goes

on to mention that "in a section of rural Florida it has become increasingly more difficult for

high school students to dual enroll in community college courses due to limited transportation

and economic hardship" (2007, p. 30).  So, while the options may be perceivably "available" to

students, the actuality of students having the means to access this technology is not always

present. Brenner's findings also support the idea that there are issues of a social divide present for students today. Perhaps as an increasing number of students and their parents reap the benefits of the online learning movement, assistance will be given to those households unable to afford the cost of their children's online education.

Coinciding with geographical components of online learning are the cultural elements of this phenomenon. While online education offers the opportunity for a student in China to enroll for an education at California State University, is this potentially an enjoyable or frustrating experience for the international student? A study published in 2010 in *The International Review of Research in Open and Distance Learning* explored this topic by following three international students enrolled in an online Masters program in a Canadian University. All three of these students had obtained their undergraduate degrees in their home country (China, Japan and Iran), and all had previous experiences with online coursework. Students enrolled in the program were required to pass English Language Proficiency tests, both verbal and written. Challenges reported by these students were many. They included a lack of advising from the professor, insecurities about understanding interactions in class due to the lack of nonverbal cues, difficulty understanding posts with informal references, difficulty interpreting western culture references and context-specific posts, difficulty writing and typing English with correct spelling, and fear of rejection by classmates for group activities due to lesser English skills (Kenny & Zhang, 2010). A cultural difference was also mentioned in the way that the Asian students perceived their role as a student in the class—because in their home country, it would be unacceptable for a student to question or debate a topic in class (Kenny & Zhang, 2010).

On the upside, these international students were able to identify a couple of encouraging aspects of being an online international student. The students reported feeling less anxiety about their communication in English online, and felt that reading online was easier and more relaxed than trying to listen and comprehend the information in class (Kenny & Zhang, 2010). While there is certainly enticing aspects to distance learning, there are also unfavorable experiences in most cases. It is possible that as the world continues to become a more globalized culture that disadvantages such as these will become less prominent and bothersome to students bringing cultural differences to online classes.

Another article, *Cultural Dimensions of Learning: Addressing the Challenges of Multicultural Instruction,* addresses the critical factor of varying cultural values in the field of education. Linder-VanBerschot and Parrish (2010) examine the critical cultural challenges that are likely to appear in distance learning and how to best address these factors. International students bring a variety of cultural dimensions to a course, whether in the form of values, practices, or other aspects. For example, students from different cultures may have varying beliefs of gender roles or non-verbal communications that differ from another. The article suggests that instructors should consider the population of their enrolled students prior to instructing a course, be aware of their own cultural biases, and attempt to understand and appreciate differing cultural values (Linder-VanBerschot & Parrish, 2010). More detail on this topic, as it relates to instructors, will be discussed in the next section. But, perhaps in the evolving global demand for international education opportunities, curricula will continue to change and address the difficulties seen thus far for students.

Theoretically, online students are able to access their classes and their professors at any place and any time. Students' ability to seek out their instructor's assistance can be as easy as a phone call or email. Therefore, individual attention is potentially able to occur more so in an online environment as opposed to a traditional classroom setting. The critical issue is whether these interactions are quality, reliable forms of communication for the student. "The general consensus is that face-to-face encounters provide the richest form of human interaction" (Borstorff and Lowe, 2007, p. 19). Hence, the need for "media-rich" mediums in e-learning communication is vital to allow for effective interactions. Borstorff and Lowe conducted a study of 113 business students at a southeastern university to determine their experience with online education. "Sixty-six percent of participants reported no communication problems between themselves and their instructor, while 23% reported communication problems and 11% reported no opinion" (Borstorff & Lowe, 2007, p. 23). According to the most popular recommended change by the participants, improved technology could decrease the challenges that were faced regarding their interactions with the instructor (Borstorff & Lowe, 2007, p. 23). So, while the ability to gain more one-on-one interaction from an online teacher is *possible,* it also must be *reliable* in order to satisfy the needs of the student.

With the convenience of online learning comes responsibility. Online education seems to be an ideal learning situation for students with the ability to stay on task independently and have self-discipline for completing their coursework. However, for students who may be easily distracted or feel overwhelmed by various roles and responsibilities (i.e. juggling sports, schoolwork, parenting, or a full-time job), distance learning may prove quite a challenge.

Volition could be the term used to describe an ability to stay focused on a task or assignment. Research completed in 2007-2009 observed the volitional competence of students in both online and traditional courses in Germany (Bastiaens & Deimann, 2010).  Interestingly enough, the group of distance learners showed higher levels of self efficacy and lower emotional control than their counterparts in campus-based courses. "This is in line with recent research demonstrating that negative emotions and motivational challenges may be evoked when learners work face-to-face in groups" (Bastiaens & Deimann, 2010, Differences in Volitional Competency among Educational Institutions section, ¶ 3). Students who demonstrate higher qualities of volition will more than likely succeed at online learning due to their abilities to delay gratification, set realistic priorities, and reduce potential role conflicts. Students who lack these features of volition will more likely surrender to outside distractions, and this could even end up dropping out of online courses (Bastiaens & Deimann, 2010).

Responsibility of a grade school student attending school online can be even more of a concern. While learning online presents a great opportunity, it may *not* be ideal for this student and his or her overall quality of learning. The question has been raised, "Who really is doing all those online assignments, and how do we really know the diploma went to the right person?" (Glass, 2010, Comparability Issues section, ¶3). It is difficult to distinguish who is actually responsible for completing an assignment if students enrolled have overly-involved parents originally intending to coach and encourage their children. According to Watson (2007), "Because teachers and students are in such close communication, the teacher can recognize when students are not submitting their own work" (p. 17). This claim seems unrealistic.

However, the quality of teaching staff could make a difference in validating this concern.

Ultimately, even at the elementary learning level, if a student is not in control of his or her own

learning then the purpose of "student-centered learning" is defeated. This predicament also

creates obstacles for educating a capable, future Knowledge Worker.

A student's learning style can play a role in his or her success or failure in online courses.

Nick Zacharis examined students and their varying learning styles in both online and traditional

teaching settings (2010). Zacharis referenced Kolb's Learning Style Inventory test, a 12-item

survey that determines a particular learning style of an individual, for the research. Kolb

indentifies four basic learning styles: Accommodators, Divergers, Assimilators and Convergers

(p. 593). Accommodators tend to favor feeling and doing, Divergers favor feeling and watching,

Assimilators favor thinking and watching, and Convergers favor thinking and doing (p. 593).

After studying both the online and traditional classes, there seemed to be no significant

distinctions in the different environments as it related to learning styles. This suggests, then,

that students can be equally successful whether they are involved with online or traditional

college courses. Zacharis believes it is important to remember that students bring different

styles of learning to both online and traditional classes. Therefore, instructors should consider

these differences when compiling lectures and activities in order to enhance the learning of all

students.

A study published in the *Delta Kappa Gamma Bulletin* in 2008 researched the

advantages and disadvantages of online education. Eleven instructors at a rural, mid-Atlantic

community college were interviewed in order to gain their individual perspectives of online

instruction. A pattern that emerged was the agreement among instructors that characteristics

and traits of students play an important role in their success of online classes. "These

characteristics and traits include maturity, accountability, responsibility, self-discipline,

flexibility, time-management skills, self-directedness, initiative, problem-solving skills, reading

comprehension skills, and basic technology skills" (Hurt, 2008, p. 7). While online courses

should not necessarily be limited to students who possess certain key personality traits, these

could certainly be a predictor of student success. Students may benefit from considering their

own personality characteristics prior to online enrollment.

Online learning is often touted as a timesaver due to its flexible, learner-centered

perspective. One perception may be that saving time, for instance, driving to and from a

campus-based course, means that less time is required to put forth in the online environment.

However, this may be a deceptive suggestion. While driving or time in a classroom may be

eliminated with online programs, a study from 2005 found that 77% of an online student group

indicated that their online courses were "much more demanding" or "slightly more demanding"

than traditional classes (Braun, 2008, p. 71). The myth of online learning being "easier" than

traditional coursework is debunked by the Eastern Iowa Community College District on their

website page about Myths of Online Learning:

> Because of the nature of online courses, they are more demanding and take more time.
>
> Extensive reading requirements and time management are required for student success
>
> in online classes. Online courses are not easier than traditional courses, just presented
>
> in a different format and still have deadlines and due dates. Try to find someone who

has already taken an online class and ask them about it. Do not underestimate the time

commitment, pace and demands of an online course! Plan to spend two [to] three hours

of homework for each hour of class time per week. If your online course is a three credit

hour course, you can expect to spend six [to] nine hours per week to participate in

online discussions and complete the readings, assignments and homework.

(http://www.eicc.edu/onlineclasses/credit/onlinehelp/myths.html)

Ultimately, while there are fuel costs to be saved by eliminating a commute to campus, saving

much *time* is not necessarily a reason to enroll for an online education. Time saved by driving is

not essentially made up anywhere else by participating in online learning. Demands of the

student to be intensely involved and motivated to learn from time intensive course readings

and assignments are ultimately the key to success.

The world's view of online education, particularly those of employers looking at

potential job candidates with online degrees, could determine whether online learning provides

an advantage or disadvantage.  In 2010, Bill Gates was quoted, stating, ''We should focus on

having at least one great course online for each subject rather than lots of mediocre courses"

(Stross, 2011, ¶ 4).  There is a certain stigma attached to the idea of a potential employee

having gained an online education, due to many "myths" about this topic. A Human Resources

recruiter may believe that an applicant with online education took "the easy way out" by opting

for an online education. Or, perhaps the potential job candidate has "poor social and

communication skills" that led them to attending their courses online. Even worse, a company

could view a person's online degree as "non-credible" compared to a traditional degree. The

challenging work expected from many online institutions and growing awareness of online

programs could provide the assumption that a job seeker is self-disciplined, skilled in

communication technologies, and holds a degree from an accredited institution.

Unfortunately, diploma mills (the term for a business selling fake degrees from real or

non-existent institutions) have existed for years now. These establishments sell buyers an easy,

seemingly credible degree to unsuspecting employers. "St. Regis University" was exposed by

U.S. authorities in 2005. This illusion of a university was master-minded by Dixie and Steve

Randock for three and a half years. In this short time, the couple profited over $7.3 million from

selling more than 10,000 fake degrees to worldwide consumers by Internet (Contreras and

Gollin, 2009). The St. Regis case is just one of many situations where apparently hard-earned

college degrees are no more than bogus, misconstrued documents held by fake, supposed

college graduates. After reviewing these details of fraudulent establishments and the scams

related to online degrees, it is no wonder why employers may be leery of hiring a person with

one. Fortunately, if a student graduates (traditionally or online) from an accredited institution,

this can indicate a quality education. "[Accreditation] verifies compliance with certain

predetermined, common standards of excellence; it can protect an institution from

unwarranted criticism and, to the extent that the faculty is involved, provide the stimulus for

the improvement of courses and programs; it promotes internal unity and cohesiveness" (Head

& Johnson, 2011, p. 37).

Columbaro and Monaghan (2009) found evidence in their literature review that there is,

in fact, discrimination between online and traditional educations. Information from this review

indicates substantial evidence that traditional degree holders are favored over online

graduates. Many different academic resources and studies were accessed for the review. It was

noted by one researcher that "perceptual disparity" was evident in hiring practices. Columbaro

and Monaghan (2009) cited a particular study by Flowers and Baltzer from 2006: "Participants

in the sample were significantly less likely to hire a candidate with an online doctoral degree for

a full time, tenure-track faculty position" (Findings section, ¶ 4). A 2006 study by Adams and

DeFleur, cited in Columbaro and Monaghan (2009), surveyed hiring executives to determine

which of three potential, hypothetical applicants with similar experience but different

bachelor's degrees they would be inclined to choose for an interview. The hiring executives

were from areas of business, accounting, engineering, and information technology. The

bachelor's degrees held by the applicants were 1) traditional, 2) blended (mixed learning

methods), and 3) online. The results were astounding! *Ninety-six percent* of the hiring

executives indicated that they preferred the *traditional* degree candidate over the other two

bachelor's degrees. Another overwhelming 75% of survey participants resisted even the

blended education of participants, stating that they still preferred a candidate with a traditional

education (Columbaro & Monaghan**,** 2009). These studies serve as a disturbing reminder that

there is still a lot of awareness to be raised about the benefits that online education offers to its

recipients. As of today, it is unfortunate that students that have worked hard to obtain a degree

online may be met with the responsibility of defending their education and accepting criticisms

from others due to the widespread stigma on this topic.

With the vast amount of formal education valued by today's Knowledge Society, an informative aspect of this online trend could be found by observing separate fields of study. Perhaps certain concentrations are better suited for an online environment than others. For instance, a patient would probably not feel comfortable seeing their physician for a surgical procedure, knowing that he was educated by an online institution. But a customer seeking a professional web designer may be quite enthusiastic about hiring a person who obtained online education in this area. Berge and Gaver (2010) investigated five different establishments on the topic of subject matter and online training: a university, a federal government agency, a state government agency, an international organization offering financial services, and a local hospital (p. 50). Despite the different industries involved, a consensus by each training executive was that online training was not sufficient for the subject area. "To these professionals, online training is effective for topics including compliance, factual information requiring only an *understanding* of the material, or subject matter that necessitates little (if any) interaction with another human being" (Berge & Gaver, 2010, p. 55). Subjects such as language proficiency, communication, or team building concepts were noted as the most inappropriate topics for virtual instruction (p. 55).  This is not to claim that students are not offered education in these areas. However, there could be unforeseen consequences later for a student that has obtained an online degree; particularly if the degree is in a field viewed as difficult to be taught adequately in a virtual setting.

There are concentrations that are statistically more likely to be offered online. The Sloan Consortium reported in 2008 that the area of discipline with the highest growth of fully online

programs was business, while engineering degrees experienced the least growth (Allen & Seaman, p. 13). One thing is certain: growth of online degree opportunities will surely continue. Inevitably, innovative ways to train even the most diverse of subject matter will surely be tackled with enabling new technologies.

Online courses allow for networking and meeting new people. Even more, when engaged in an online course long-distance, it can be exciting to meet people from other places in the world. Interacting in online classes is typically a necessity, and usually required in a determined amount. "If the design of an online course is well thought out, social presence naturally evolves from students' interactions and their consciously being aware of each other in the context of moving forward," (Luetkehans, Mayall, Pate & Smaldino, 2009, ¶ 2). As social presence can enhance learning quality, connections outside of one's immediate physical area can be developed through virtual socialization.

Online socialization opportunities can also be beneficial to the timid online learner. It is an accepted reality that communicating online carries a factor of anonymity, and allows for people who may usually be less open to communicate their questions or ideas. This online social presence can be beneficial to an entire class of students, particularly if there is a stigmatizing topic up for discussion. Students may all feel more encouraged to join in a sensitive topic if they are in an online course. Open discussions in a virtual class can also facilitate critical thinking skills of students. On the downside, anonymous online discussions can also increase chances for conflict or disrespect in the classroom. This is another aspect of online education that requires responsibility on the part of each enrolled student to engage appropriately in his

or her classes. Another detriment of online courses can be feelings of social isolation from some students. "Some feelings of isolation come with the territory; isolation may be a trade-off for the convenience and access provided by online offering" (Hurt, 2008, p. 8). Depending on the needs of different students, a lack of face-to-face interactions may simply not be tolerable for some.

Another interesting aspect of online education is how this option measures up for people with disabilities. While many schools provide accommodations for people with disabilities, it seems that enabling a person with a disability to skip any physical challenges could be even better. In 2006, a study was done with over two hundred participants in online education at Canadian universities. More than half of the students had more than one disability. The students evaluated their e-learning experience, and over 40% of the students cited the biggest aid from the experience was having access to the course notes online (Asuncion, Barile, Chwojka, Ferraro, Fichten, Klomp, Nguyen & Wolforth, 2009, p. 250). The biggest complaint about the online learning was technical difficulties, whether with accessing websites or compatibility issues with adaptive equipment (Asuncion et al., 2009, p. 250). Mary Alice Anderson (2010) reports instructors' perspectives of students with a disability learning online:

> One instructor singled out the reward of seeing disabled students succeed: '"They basically said they could be 'invisible' in an online classroom because no one could see their disability. They also liked the fact they could pace themselves. Some preferred to

finish everything early, and some liked to write drafts and then rewrite for posting. They felt in an online environment they could read the material over and over again." (p. 23)

It seems that online learning can take away some of the stress that campus-based courses may create for these students. A possible downfall of allowing students with disabilities to gain education online is their lack of face-to-face interactions with peers and the potential for increased social isolation from others.

### *THE ADVANTAGES AND DISADVANTAGES FOR INSTRUCTORS*

Online teaching can seem like a favorable option to professors in the field of higher education. Teachers are able to step aside from their traditional roles as a director of lectures and class activities, and nurture their students to develop as independent learners for the Knowledge Society. As with students, a flexible class schedule with the ability to work at any place, any time, can also be a benefit to an online teacher. Online teachers have the opportunity to build relationships with a culturally diverse group of students. Many educational institutions provide an instructor with course materials and curriculum information. This advantage can eliminate some time that would otherwise be needed for preparation and planning prior to facilitating a course. The information ahead in this section will examine research about these advantages and will also consider possible disadvantages of online teaching.

Teachers of online courses are themselves subjected to a variety of learning experiences in the virtual environment.  Chi-Sing and Irby quote Deal III from 2002, "Historically, teaching

and learning were confined to classroom settings with few instructional strategies including

lectures, discussions, and field trips to stimulate the learning process of students (2008, p. 450).

Online education involves a different teaching style, in which the instructor acts as a facilitator

for students who are responsible for their own learning through engagement, collaboration,

and using skills for critical thought.  "Effective learning environments should be *student-

centered,* or recognize prior and evolving student knowledge" (Park Woolf, 2008, p. 39). One-

way, teacher-directed lectures that occur semester after semester are unable to satisfy this

requirement, but an interactive online class can cultivate the evolution and education of

students suitable for the Knowledge Society. Figure 1 illustrates the differences between

traditional and student-centered learning.

Teachers who facilitate online classes must change their approach for the students. A

myth about online instruction may be that it is much easier than conventional teaching. It is

thought that since teachers act as a guide for learning, rather than a dominant leader of a rigid

course structure, less work is necessary for the teacher. However, this is not really the case. In

fact, attempting to fulfill a role as a facilitator may actually be quite difficult for a teacher,

especially one who is accustomed to years of traditional instruction in the classroom. As

Puzziferro and Shelton (2009) put it, "Anyone can learn how to use a learning management

system, but the understanding of the culture of online learning, and how to move between

roles in a collaborative way is something that needs attention and careful development" (p. 15).

Puzziferro and Shelton propose the idea of online instructors fulfilling roles aside from that of a

learning guide, such as roles of being "a leader, an authority, a scholar, a manager, and an

advisor" (p. 15). Faculty must take on various functions, depending on the needs of the online

class or of an individual student at any given time (p. 15). Puzziferro and Shelton express a

concern of some online teachers taking their role of a learning guide lightly, despite proven

research that indicates a correlation between high teacher presence and student success (p.

15).

In addition to the Puzziferro and Shelton points on this topic, an online teacher must be

knowledgeable about the subject matter of the course being taught. The ability to facilitate a

successful online course requires additional teaching skills aside from a teacher's expertise with

the subject or experience in a campus-based classroom. This is not to imply that the role of an

online teacher is an advantage or disadvantage of the profession. However there is an

important difference between campus-based and online education, and one to be considered

carefully for the integrity of the student body.

Along with acting as the class facilitator for learning, the teacher must serve as an

encourager of application and use of critical thinking skills. The topic of online education often

mentions the importance of constructivist, collaborative learning perspectives as opposed to

traditionally perceived passive environments. Noted by King, Warren and Williams (2011), "Key

components of 21st century learning include an emphasis on core subjects and learning skills,

the use of learning tools to engage learners in both context and content, and the integration of

assessments and evaluation that effectively measure student progress (Partnership for 21st

Century Skills, 2009). Current classroom and online instruction methods have changed

dramatically in recent years to accommodate for the value of technology, society and culture

(King et al., 2011). Facilitation of collaborative learning in the online setting is a key

characteristic of the student-centered, constructivist learning theory. "This can be difficult in

many higher education settings where students are already conditioned to be passive recipients

of knowledge, and where facilitative teaching styles are less common or not valued" (Fazey,

2010, p. 16). Students in the course may be resistant to or uncomfortable with exercising

critical thinking skills; some teachers may also not be familiar with this skill and how to foster it

among their students. It was noted earlier in this paper that with international online students,

particularly from Asian countries, having a teacher take a collaborative role with the class felt

strange to them from a cultural perspective. As online learning continues to grow and include

more culturally diverse student bodies, it will be increasingly more important for teachers to be

able to address this issue and encourage more student interaction. In the article *Best Practices*

*for Online Instructors: Reminders*, Fish and Wickersham (2009) stress the value of online

instructors receiving continuing education themselves about successful course strategies,

conducting literature reviews about current practices, and networking with other professionals

in the field of online education.  The significance of faculty understanding how to promote

success using the student-centered approach online is vital.

There seems to be a lack of research about the resources available to online instructors.

A recent study published in the *Journal of Instructional Technology and Distance Learning*

attempted to look at this subject by examining faculty at a large Midwestern University. This

particular article noted that many instructors may attend a one-time workshop or training on

the topic of online teaching, but are often left feeling in need of more support and answers

(Kyei-Blankson, 2010). Over one hundred faculty at this university participated in a survey to indicate where they receive information and support to develop their online classes and teaching skills. The results showed:

> Regarding the issue of availability of faculty resources, the majority of the faculty members (80%) stated that they were likely/very likely to seek assistance from their peers, colleagues, or other faculty when they taught or prepared to teach in online environments. In addition, 74% of instructors said they were likely/very likely to use the on-campus Center for Teaching, Learning, and Technology as a resource. On the other hand, only 35% and 39% indicated that they were likely/more likely to enroll in face-to-face professional development courses offered off-campus and in professional development courses offered online, respectively. (Kyei-Blankson, 2010, p. 44)

These results serve as a reminder of the impact that peer support can have on online instructors. Its importance is as prominent as the ever-changing technologies and strategies available in the online world of education.

Training for K-12 teachers also remains an important aspect of online education. Similar to the realm of higher education, teachers who work with the K-12 population need to be comfortable with the technology they are using and the facilitation of successful online teaching. Watson (2007) points out that typically teachers can become easily familiar with the learning management system they use for the course (p. 20). "Effective online pedagogy" (Watson, 2007, p. 20) is the challenging piece of this profession. Usually, the most difficult task for online teachers is figuring out how to encourage collaborative, lively dialogue among class

members (Watson, 2007). Being able to engage in an online setting and create a dialogue that

is equally effective as a face-to-face interaction is crucial to effective online learning. While this

can take substantial effort on the teacher's behalf, it is necessary to encourage students to

learn from one another and gain their own knowledge and understanding.

The same convenience factors for students are in effect for teachers when it comes to

online learning. Teachers are not required to show up on campus at certain times to instruct a

course. As with students, this convenience can be seen as a trade-off for the responsibility that

is an imperative aspect to online education. Instructors are afforded the comfort of being in

their own choice of environment while teaching class. This also means that instructors have

24/7 access to their courses, and can (and should) monitor class activity and discussion more

often than just what a traditional, scheduled class may capture. It is important that teachers

make their presence known at the beginning of the class in the online setting so that students

are aware of the support available from the course facilitator. Dykman and Davis (2008)

emphasize the importance of instructor's communication with students:

It is also critical in this environment for a teacher to be dependable in dealings with

students. Commitments must be kept. Agreements must be fulfilled. Failure to keep

commitments will destroy the levels of trust previously attained with students.

Forgetfulness is, therefore, a serious weakness in online teaching. This means the

instructor must pursue a real quest for excellence in the electronic classroom by

building relationships with individual students and keeping track of commitments. (p. 4)

These points made by Dykman and Davis indicate what is probably expected by a quality online teacher by his or her students. An instructor's ability to model and adhere to proper expectations for an online course is critical for a satisfactory experience of class members.

Pre-collegiate teachers must also be able to engage often with their students in order to promote educational success. Cathy Cheely, the director of Virtual Virginia, explains, "You cannot sit back and wait for the students to come to you. You have to be the person to reach out to the student, by picking up the phone, or sending an e-mail, or using whatever communication tools are available to keep students on pace" (quoted in Ash, 2009, p. 27). Ash goes on to outline some of the other important traits of a successful online teacher. These characteristics include being willing to use new technologies, having experience as a student in an online course (by having taken at least on virtual class), having the ability to model and encourage appropriate classroom behavior, having the ability to create a sense of community for the students, and demonstrating good time management skills (p. 27). The description of a quality online pre-collegiate teacher shares many necessary attributes of a traditional teacher in a K-12 or college setting, as well as some additional requirements. A possible disadvantage to this concept comes about when teachers are unwilling or unable to make adjustments from their traditional roles in the physical classroom in order to be an online success.

Of course, a downside to online instruction is the need to separate work from home. This type of work is one of many jobs in the world of telecommuting and the challenge of having appropriate boundaries can be difficult. "Imposing appropriate time boundaries around work and separating and conserving the quality of home life, including relationships with the family, are critical," (Khosrowpour, 2006, p. 207). Online instructors must be able to find a

balance between their personal and professional lives. At the same time, the quality of instruction to class members must remain effective.

As an online instructor, convenience in choosing when to attend your own class can be enticing. However, this does not mean that an online course will be less time-consuming than a traditional class. Particularly with online teaching methods, there is a considerable need to be prepared and organized—and this increase in work does not usually mean a salary increase. A study by Shea (2007) examined 386 online faculty at thirty-six different colleges to determine why faculty are inclined or not inclined to participate as an online instructor. The faculty surveyed in the study included both full-time and part-time, tenured and non-tenured staff. College types were varied, and included "community colleges, four-year comprehensive colleges, technology colleges, specialized institutions, and university centers" (p. 79). The key motivator for the majority of the faculty was the flexible schedule that online teaching allowed (p. 73). The most common demotivator mentioned by the online faculty surveyed was "inadequate compensation for perceived greater work than for traditionally delivered courses, especially for online course development, revision, and teaching" (p. 73).

Another study published in 2006 compared the workloads of traditional and online classes. The conclusions were interesting. It was found that online teaching required at least 14% more time than traditional teaching, and the weekly demands were also considerably different (Tomei, 2006, p. 531).  Planning and preparedness is essential to successful online classes and is typically more intense than for a traditional course. An instructor should also take the time to ensure proficiency with the software or media used for the course, in order to provide effective facilitation.

Many online teachers can find virtual instruction to be a satisfying experience. There is more opportunity for instructors to work with more non-traditional students or students from different countries and backgrounds. These factors can complement the online student community, and even provide enriching, personal learning experience for the teacher. An online instructor must be willing to learn about the backgrounds and cultures of their student population, though, in order to provide helpful collaboration for the class environment. This important point was also made earlier as it relates to the benefit of online students. "A better understanding of the interplay between learner culture and e-learning will result in enhanced access and a heightened potential for success for all e-learners" (Wang, 2007, Educational or scientific importance of the study, ¶ 1).

One downfall of the geographical independence of online teaching is the possibility of having technical or software difficulties. While technology has much to offer from an education standpoint, there are still concerns about connectivity or software issues. For instance, an instructor may be on vacation but intending to remain connected to his or her online class. That instructor should then have assurance that reliability will not be hindered by location. Immediacy of an instructor to his or her students is important because it is a perceived benefit (by students) of being online and having instant access by email or postings in the course.

Online instructors may not be able to meet their students face-to-face, but genuine, online collaboration is helpful, particularly if offered to each student. Fish and Wickersham (2009) cite the importance of proactive, diligent communication by instructors with their students, and the enhancing abilities that a professor's direct inquiries can have on a student's level of comfort (p. 282). While this practice can be supportive and enriching, it can also be

time-consuming and demand unfathomable flexibility on the behalf of the instructor. Another

consideration on this topic is the class size of online courses. Typically, online courses consist of

a higher number of students and therefore a larger workload is placed on the instructor

(Puzziferro & Shelton, 2009, p. 16). Considerable time is required to give individualized,

adequate attention to an increased number of students. Having an increased workload is

unquestionably a disadvantage to the job of online instruction. However, if a larger class size is

expected and prepared appropriately for that context prior to the start of the course, teachers

do have the advantage of providing valuable learning opportunities for their students.

Ultimately, if the instructor is truly committed to providing attention to each student, then

quality teaching can still occur.

Since online teachers are not likely able to physically meet their online students, this

could create frustration. Teaching online could make building rapport and relaying enthusiasm

to the student body difficult (Hurt, 2008, pp. 9 & 10). The issue of social presence, as already

mentioned earlier being a detriment to students, can also affect teachers.

Standardized online courses are offered in many online programs. "For many

institutions, a great deal of time, effort, and money go into the development, design, and

control of standardized online courses," (Puzziferro & Shelton, 2009, p. 13). The benefit of this

practice allows for consistent, straight-forward curricula to be ready for class upon the start of a

semester. Instructors are not required to research the subject, create activities and discussion,

and generate assignments. However, for the online instructor, this leaves little if no room for

personalization based on teaching style, and can also lead to routinization of education

(Puzziferro & Shelton, 2009, p. 14). While perhaps intentions are good, these results can

produce dissatisfaction for an online teacher who is passionate about educating students. Just as students have different learning styles, teachers also offer their students personalized teaching techniques. Teachers who feel stifled in their ability to exert their own instructional talents may experience intense dissatisfaction with their role online.

Instructors offering specialized expertise for K-12 students may find a benefit in teaching online. Many rural or underprivileged school districts are not able to afford hiring, let alone retention of teachers in specialized subject areas such as math, science and foreign language. (Watson, 2007, p. vi). Teachers that possess these skills are able to be employed in online environments and share this knowledge with millennial students.

### THE ADVANTAGES AND DISADVANTAGES FOR EDUCATIONAL INSTITUTIONS

Distance learning is not a new phenomenon in the education industry. Correspondence courses were the beginning of distance education, and existed as early as 1852 using the United States Postal Service for their means of communication. In 1852, the Pitman Shorthand training program operated in the United States. Secretaries were able to complete assignments and mail their work to the Phonographic Institute in Cincinnati, Ohio for grading and eventually, certification for stenographic shorthand education (Casey, 2008, p. 46). In 1892, the University of Chicago offered the first college course available for distance learners (Casey, 2008, p. 46). As technology continued to develop throughout the world, so did the delivery of distance courses. The postal service, radio, and television were all popular modes of classroom delivery until the Internet was born.

Today's distance education courses have come a long way from historic methods of correspondence learning. It is significant that distance learning continues to be in demand by students seeking a formal education. Theoretically, today's online learning trends offer much to be gained for educational institutions from an economic or cost perspective.  Colleges and universities are able to serve a larger student body while having no need to create extra physical space to accommodate for their students. Education providers have been able to respond to the tough economic times, and provide convenient and flexible courses in response to the high demand from students. Online learning can practically mean the ability to serve a countless student population with accessible classes and affordable tuition costs. This is particularly significant due to the increasing number of students, traditional and non-traditional, seeking a formal education to thrive in today's Knowledge Society. Institutions are also able to incorporate the student-centered learning approach, seen as superior by many (in comparison to traditional, didactic instruction), in order to educate their students.  The latest technological advantages weave into online learning, enhancing the learning experience of the student body. Costs to institutions for class materials or printed assignments are also removed when learning takes place online. The information ahead examines these ideas further.

Consider the cost analysis from an institutional perspective. The main cost involved for a college that provides online classes is the cost of faculty. Mitry and Smith (2008) claim that if institutions are "cash cows" in the online education industry, then this is due to putting profits above quality.

We find that the answer to the question of comparative costs between on-ground and online delivery is straightforward. With equal quality in all academic standards, including equal quality of faculty credentials, the comparative costs between on-ground and online delivery will be approximately the same between same-size enrollments, but the costs of small classrooms will be higher in comparison to those of large classrooms because the per capita variable costs are lower in large classrooms. (Mitry & Smith, 2008, p. 149)

Mitry and Smith (2008) conclude that the cost of providing online education, equal to the quality of campus-based instruction, is actually more expensive due to the compensation to faculty that is required to provide equivalently valued courses online. It is suggested that universities that are profiting from online education are actually cutting corners from a quality perspective. For instance, instead of having well educated, full-time faculty provide instruction, many online schools may be hiring mediocre or even questionably capable adjuncts instead. The upside to this topic is that schools can be approved by regional accreditation boards that will determine, according to high standards, whether accreditation is justified based on the quality of educational programs provided. Corbett and Visser (2006) obtained figures from the University of Massachusetts Boston and point out similar opinions about the costs required to offer online courses. Table 2 displays the Corbett and Visser findings, revealing that the team approach, though more costly, creates the highest quality of course development (p. 46). Although it is most costly, a higher quality course is sure to be offered by a team approach. A team of various professionals is able to contribute knowledge, perspectives, and technological systems to create a worthwhile college course.

Perhaps the general consensus on "quality" as it relates to online education is changing as we move into the Knowledge Society. Puzziferro and Shelton (2009) note that traditional instruction may often be viewed as timely and slow, involving much paperwork, deliberation and debate before the acceptance of quality is reached. However, in the Knowledge Society, having access to knowledge at high speeds and having the ability to target only relevant information to a certain degree or program is what holds value today (p. 18).

A concern in the K-12 sectors of education is the outsourcing of education to other countries outside of the United States. "Terry Moe and John Chubb, long-time foes of public education, devote a chapter in their recent book *Liberating Learning: Technology, Politics, and the Future of Education* to an extended hymn in praise of cyber schools. They cite with approval the outsourcing of instruction to low-paid 'cyber tutors' in India" (Glass, 2010, Beyond Novelty section, ¶ 9,). Quality education in any sector of education must be regulated by some means in order to ensure that credible faculty are involved, and that earned diplomas are distributed to deserving students. While higher education providers have accrediting bodies in place, this is still a work in progress for K-12 cyber schools.

K-12 education providers realize the need for providing supervision of quality online programs, but developments are slow. As Watson (2007) relays, "The growth in online education has outpaced education policy in many states: In many states, online programs are guided and overseen by rules and regulations created for traditional schools" (p. 8). Administrators of K-12 school systems are often uninformed themselves about the vast amount of details involved with providing virtual schooling. "The rapid growth of these programs has resulted in their identification as a disruptive innovation, and their development trajectory has

been from outside the traditional educational program" (Plants & Rose, 2010, p. 58). While it is a step in the right direction for public schools to take advantage of technology for the promotion of quality education, there must be appropriate regulatory bodies in place to ensure continued excellence for students.

Some progress has been seen in recent years in the K-12 online education realm. Archambault and Kennedy (2011) report that "a small minority of teacher education programs are [sic] addressing the need to prepare educators for settings other than the traditional, brick and mortar classroom" (p. 3459). Teachers will not be experienced to provide quality instruction to students if they are not afforded student-teaching opportunities in an online setting. Archambault and Kennedy cite Christensen, Horn, and Johnson (2008), noting that 50% of all high school courses offered by 2016 will be online if current trends continue (p. 3459). This creates a mounting concern for Knowledge Workers in the teaching field unless more virtual teaching experiences are afforded to educational majors. As online K-12 offerings increase, so must the online field experiences for future K-12 teachers.

Additional signs of improvement in K-12 online learning are identified in the Sloan Consortium's 2009 publication, *A 2008 Follow-up of the Survey of U.S. School District Administrators*. In this report, Picciano and Seaman (2009) refer to the Florida Virtual School as "perhaps the most successful example of state policy supporting an online program that is meeting the needs of tens of thousands of students" (p. 27).  Picciano and Seaman also recognize the states of Michigan and Alabama for having "initiated major new policies" (p. 27) to address K-12 online education.

In October 2009, The International Association for K-12 Online Learning, or iNACOL,

endorsed the publication, *National Standards for Quality Online Programs* (The International

Association for K-12 Online Learning, n.d.). As of this writing, the current standards have been

reviewed by a "committee of participants from a wide variety of backgrounds (including K-12

online course developers, course reviewers, instructional designers, professional developers,

online teachers, higher education, etc.) . . . to ensure that the iNACOL online course quality

criteria and considerations for course reviewers are truly reflective of the best practices in K-12

online learning" (The International Association for K-12 Online Learning, 2011). This publication

offers guidelines to states and school districts for providing quality, well-rounded programs for

online learning. Enhancements such as online field experiences for teachers, new policies for

online programs, and publications for quality guidelines all demonstrate valid efforts of K-12

education providers to improve their programming. The K-12 educational landscape will likely

experience dramatic changes as more schools address these current concerns. The current

shortcomings of K-12 programs could be viewed as a disadvantage, but the progress may prove

to be advantageous for the future of this area.

Educational institutions have the ability to provide proven, effective methods of

instruction to their student population. The concept of student-centered learning is a hot topic

in the educational realm of the Knowledge Society, both in physical classrooms and through

virtual courses. This learning model decentralizes the traditional role of a teacher, and

facilitates a more individualized learning experience for each student. Rather than teachers

using their skills towards creating the class's learning style, students are coached to learn in the

most efficient manner for them. And, in addition, students are able to learn from one another

and on their own through critical thinking exercises, rather than only learning from the one-sided perspective of their instructor. Students take on the responsibility of producing their own learning experience. Zmuda (2009) lists the skills and capacities of priority in the student-centered learning model. Skills include critical thinking, problem solving, collaboration, effective communication and global literacy (p. 14). Additional capacities are creativity, inventiveness, resiliency and empathy (p. 14). These characteristics encompass a well-rounded learner of the Knowledge Society, and educational providers must be proficient in promoting these skills among their students. Therefore, instructors at institutions need to be trained and knowledgeable about this learning model of the 21st century.

With the swift transition from campus-based to online course delivery, it is difficult to imagine how institutions have been able to accommodate for such a rapid demand for online learning within such a short period. Between 2002 and 2007, the number of students taking online courses doubled according to the Sloan Consortium surveys (Allen & Seaman, 2008). It is time consuming to translate a traditional course syllabus into an online experience for students. And it is necessary to have trained, capable faculty to teach the courses offered. If institutions are willing to offer ongoing support and training for their faculty, then this—rather than technology—is the key to having quality courses available (Berryhill & Durington, 2006). In 1999, this topic was researched at Mississippi State University (MSU), using a survey of their current instructors. It was discovered that lack of support and guidance was a large issue of concern noted by MSU faculty. By 2002, MSU had taken action to assist their faculty. Twenty one workshops were offered to educate faculty about WebCT and its different specialty areas. In addition, up to three days of paid time in the instructional labs, at open times and with

assistants available, were an option in order to support MSU online teachers in preparing for classes. These offerings were well received by faculty, and MSU was able to create a supportive atmosphere for development of its faculty (Berryhill & Durington, 2006). Having capable, suitable instructors is a vital factor in educational providers being able to offer quality courses to online students.

K-12 online learning has been on the rise consistently for years now. According to the Sloan Consortium (2007), the number of K-12 students taking online classes increased by almost 50% between 2005-2006 and 2007-2008, with a number of 1,030,000 students in grades K-12 participating in online classes (K-12 Online Learning, Executive Summary section, ¶ 1). With such an increase in students choosing to attend class online, quality is more important than ever. According to findings by the Sloan Consortium (2007), K-12 schools have been hesitant to invest the same resources as higher education schools that offer online programs. Much of what schools offer online is through alternate providers, "including postsecondary institutions, independent vendors and state virtual schools" (K-12 Online Learning, Introduction section, ¶ 3). These offerings provide students with access to more choices; however, the providers are not necessarily advertised by quality or accreditation. Without a foundation for determining quality, institutions may be unintentionally offering poor education to their student population. This creates concern for the unsuspecting students looking for innovative options to fit their lifestyle.

A key element of the student-centered learning approach is to encourage students to find and evaluate information, in order for them to decide what is valid and presents learning opportunities to them. For this learning process to occur, institutions must provide pertinent

and relevant library resources and support. Allison Zmuda (2009), an education consultant in

the United States and Canada, lists some suggestions for librarians in the Knowledge Society:

> Instructional mini-lessons/modules that are offered on demand through virtual learning
>
> and flexible opportunities within classroom instruction, development of personal
>
> learning spaces so that students learn to control their information environment, use of
>
> social networking tools for intellectual discussions and collaboration on problem-solving
>
> and creative tasks, blended face-to-face and online learning experiences within school
>
> coursework, more flexible and widespread use of library resources through the library
>
> Web page, organization of physical space, staffing of library, and hours, and adoption of
>
> creative and collaborative technologies to network students both within and outside of
>
> school on the development of tasks and continuation of dialogue. (p. 18)

With the factor of distance being a challenge, institutions strive to ensure that their library

access is easily navigated and has assistance available when students, or faculty for that matter,

are in need.

One college library, at Nova Southeastern University (NSU) in Florida, has extensive

resources available. Distance students at NSU can learn about the services available through an

online video about the library, printable or mailed library handbook, help pages, tutorials and a

list of frequently asked questions (FAQs). Students are able to access the library's catalog online

and borrow up to 25 items per week for books or journals that may not be available completely

online. Other forms of assistance include live, toll-free phone assistance available from a

librarian 80 hours per week, emailed questions answered within 24-hours, live chat online, and

scheduled phone consultations, offered one-on-one with an NSU librarian (Batson-George,

2007, p. 57). These services are essential for encouraging students to manage their own learning and explore the information available to them in the Knowledge Society. While it may be costly to provide extensive research and library options, institutions have an obligation to provide these services for future Knowledge Workers.

Student support in the K-12 area of education is equally important. Students in online courses will inevitably have questions about the operation of the software, and the teacher facilitating the course may not be the best person to address such issues. The teacher's priority lies with educating the child; technical support staff serve as the contact for software or programming issues. In addition, "in many cases the online program expects or requires that this 'home' school will provide a mentor to the student. This mentor often provides both technical and academic support as a supplement to support available by phone or email (or sometimes as the exclusive support provider)." (Watson, 2007, p. 17). Watson points out that frequently, the mentor is a parent unless the student is also attending a brick and mortar school.  Students of younger ages are still learning how to control their own learning in the Knowledge Society, and need the resources essential to a quality education.

Technology is the ultimate physical medium for today's distance education. Educational providers must be aware of the latest and most useful technological programs, and incorporate them for purposes of cost-effectiveness and quality assurance. Regarding K-12 education, there is a recent concern about the lack of focus on potential options with technology. Three major concerns in this area of education are: "global skill demands versus educational attainment, the funding cliff, and a looming teacher shortage" (Rothman & Wise, 2010, p. 52). Rothman and Wise point out that while major technological changes have occurred in most areas of life since

computers and Internet have become commonplace, many schools have yet to embrace this trend. Perhaps the funding cliff has deterred many districts from pursuing this technologically focused route. However, according to Wicks (2010), the competing software and hardware products on the market for online learning allow costs to remain reasonable (p. 36).  If schools chose to educate their students using some of technology's benefits, then this may help address these major concerns.

With regard to higher education, Johnsrud and Tabata (2008) suggest that faculty attitudes, values, and familiarity with technology will contribute to the quality of online teaching. So, then, the challenge for institutions is to employ instructors who use and value technology and its role in education. It can be costly for institutions to install and train employees on software and upgrades. However, "in distance education, it is thus critical to hire highly competent online adjunct faculty who are enthusiastic about their subject, working with students, and teaching at the educational institution" (Tipple, 2010, Recruiting and Hiring section, ¶ 2). When faculty utilize available technology to its fullest potential then the quality of teaching can be enhanced.

Table 3 illustrates the steady rise in adjunct faculty in the higher education field. Institutions have been forced to increase their employment of adjunct faculty for a variety of reasons.  Tipple (2010) lists these as the need for instructors in specialized areas, the need to increase convenience and flexibility, the need to adjust to funding conditions, and the need to address the increasing online enrollments of students (Adjunct Faculty Growth section, ¶1). Tipple goes on to relay that upon employing a new adjunct instructor, priorities for the employing institution should not only be offering supplemental resources for a new faculty

member, but providing online training about the college (Orientation and Initial Training

section, ¶1). These resources can provide valuable information, including online learning, for

new faculty getting acquainted with their new online position. It is also very important that

instructors are provided efficient technical support options when needed, in order for courses

to run smoothly and provide students with what is expected. Statistically, the ranks of faculty

employed by educational institutions have changed from thirty and forty years ago. There is an

overwhelming number of adjunct faculty providing online education to students. Therefore,

institutions must be willing to also change their approach and their training techniques, and

provide a sense of belonging and community to their adjunct and online employees.  While it

can be beneficial to an education provider to have a variety of instructors without regard to

geographic proximity, it also requires that a welcoming and enjoyable work environment is

made available to motivate and retain quality faculty.

Institutions providing online classes can contribute to the "green revolution" that is so

talked about today. Perhaps more so than in today's physical classrooms, there is little to no

need for online programs to provide paper syllabi, assignments, or tests. The online classroom

is a "paperless" classroom. Institutions can take advantage of the costs there are to be saved by

presenting course materials in digital format for students. "The paperless classroom serves an

important role in preparing students for the $21^{st}$ century, offering them an environment where

they can learn the skill sets important for the digital future" (Wang, 2010, p. 14). Ultimately, the

student and the instructor are the two key entities needed for learning to occur. Assignments

on paper, physical desks and classroom walls are not a requirement to the online learning

process—in particular, the online, student-centered learning process. Making successful use of

the paperless classroom goes back to the need for efficient, up-to-date technologies that the teacher and the student are able to navigate and maximize.

### CONCLUSION

The research completed on this topic makes it clear that there are obvious advantages and disadvantages of online education. There are many different perspectives to consider in studying this topic. The student, instructor, and institution perspectives provide valuable information to better understand this topic. The types of education available online are also important to examine. The most detailed research available regarding online education focuses on higher education and the student's perception of its effects; however, the growing research about K-12 online learning makes it equally important to consider.

Students stand to gain the most out of online education. Online learning provides the opportunity for students to become competent Knowledge Workers for today's information-based society. This phenomenon allows for individuals, regardless of age, to take ownership of their own learning and gain knowledge through critical thinking and the guidance of their faculty. Students are no longer confined to local options for school choice and cultural awareness is possible through virtual connections. Students can take specialized courses that may not be offered nearby or within their own school district, which further enhances individualized learning. Students are able to conveniently partake in their education while tailoring their education to their own learning styles. The advantages for students seem to outweigh the disadvantages, particularly considering what is valued by the growing era of the Knowledge Society.

Instructors can also benefit from teaching in a virtual classroom setting. Teachers are able to foster the learning of their students through coaching and guidance, rather than feeling the pressure to provide all of the knowledge from within their own areas of expertise. Teachers online are afforded the same advantages of convenience as their students, and belonging to the faculty of a school miles away can be an exciting career venture. This is due to both the collaborative learning process and the culturally diverse population that online learning attracts. Online instructors can also eliminate the extensive groundwork involved in teaching online when an institution provides standardized courses to be taught, as this decreases planning and preparation time for the instructor. Teachers skilled in an exceptionally specific subject matter can often find that online environments cater to their expertise more so than area schools.

Institutions of all types are able to benefit from providing online courses to students. Institutions have the ability to reach out to an endless population of students and provide convenient, flexible courses. Virtual classes require no physical spaces of brick and mortar to accommodate the increased student body that such convenience and flexibility will draw. Providers of education are able to conduct courses using the latest technology in a paperless, virtual classroom that contributes positively to the environment. Classrooms online embrace the benefits of technology and contribute to the environmental "go green" revolution.

These advantages are strong assets for education today and in the future of the Knowledge Society. Addressing the disadvantages that were explored in detail throughout this paper will require time and dedication, but is feasible.  There is an overwhelming number of students enrolling for online education opportunities, which calls attention to the need for

"comprehensive and thoughtful evolution of distance education if it is to become the educational model of the future" (Harnar, et al., 2000, quoted by Valentine, 2002, p. 37). Since Valentine quoted this statement, there have already been major changes and advances in online learning. The very nature of the Knowledge Society encompasses technology, innovation and knowledge production. There is no doubt that further adjustments will be made in the field of education in order to improve the experiences of online students.

Perhaps many of the disadvantages noted in this paper will fade as the world moves further into the Digital Age. For instance, the concerns of the Digital Divide will likely persist, but as each day passes there are greater extensions of the Internet and computer access throughout the world. Another example may be the concerns about the value of degrees obtained online. Perhaps chief executive officers (CEOs) will experience online learning and be knowledgeable about its quality and benefits. There may no longer be prejudices towards graduates with online degrees. As members of society become accustomed to a world where virtual communication is commonplace, it can be expected that the ease at which distant classroom communication occurs will increase. It could also be suggested that as people experience more teaching and learning in the Knowledge Society, technology glitches and other difficulties will diminish. The familiarity with technology will be routine and easily navigated by all ages. In the future Knowledge Society, without doubt, there will be more developed quality assurance systems in place for online education providers in both K-12 and higher education areas. Further into the Digital Age, teachers and students alike will participate cooperatively in online classrooms.

The advantages of online learning already seem to outweigh the disadvantages. The research available indirectly indicates that the largest disadvantage of online learning is its undeveloped presence in the Knowledge Society. Institutions of education realized the benefits of online courses before gaining the mastery to adequately administer them. Without doubt, as this area of education is examined further, the quality of online programs will continue to improve. As the Knowledge Society evolves, and offers new ideas and innovations faster than ever before, online education will prosper students, teachers, and institutions in the years to come.

**Table 1: Essential Values of Higher Education**

| | Traditional Higher Education | Next Generation of Higher Education |
|---|---|---|
| **Quality** | • Quality is indicated in the process<br><br>• Endeavors that take a long time and go through a difficult process, with multiple gatekeepers equals a high quality product | • Quality is indicated by the outcome<br><br>• A high quality product is a high-quality product, despite the process |
| **The nature of "learning"** | • "Contact Hours"<br><br>• Learning is structured into sequenced, discrete "courses" which are the property of the university<br><br>• Learning is something that is done to students | • "Learning Hours"<br><br>• Learning is a structured, but synergistic connection between disciplines and knowledge domains, which generate ideas that individuals take ownership of<br><br>• Learning is something that students experience |
| **Role of faculty** | • Faculty vs. administrators<br><br>• Faculty personal and professional satisfaction and tenure systems form the collective heart of the university | • Faculty as part of the organization<br><br>• The personal and professional satisfaction of faculty, students, staff, and community stakeholders form the collective heart of the university |
| **Role of students** | • Students are consumers and products<br><br>• Students are a homogeneous group that can be served with the *same* class formats, instructors, and support services | • Students are customers and key stakeholders<br><br>• Students are a highly diverse group that need more personalization of and within class formats, instructor styles, and support services |
| **Role of the institution** | • Institution of higher learning<br><br>• Traditions provide the organizational foundation | • Organization of higher learning<br><br>• Change and innovation provide the organizational foundation |
| **Nature of authority** | • Authority is established by position and title | • Influence, impact, and inspiration replace authority and are established by an individual's actions and ability to inspire others for the greater good of the organization |

(Puzziferro & Shelton, 2009, p. 19).

**Figure 1: Teacher-Centered vs. Student-Centered Learning**
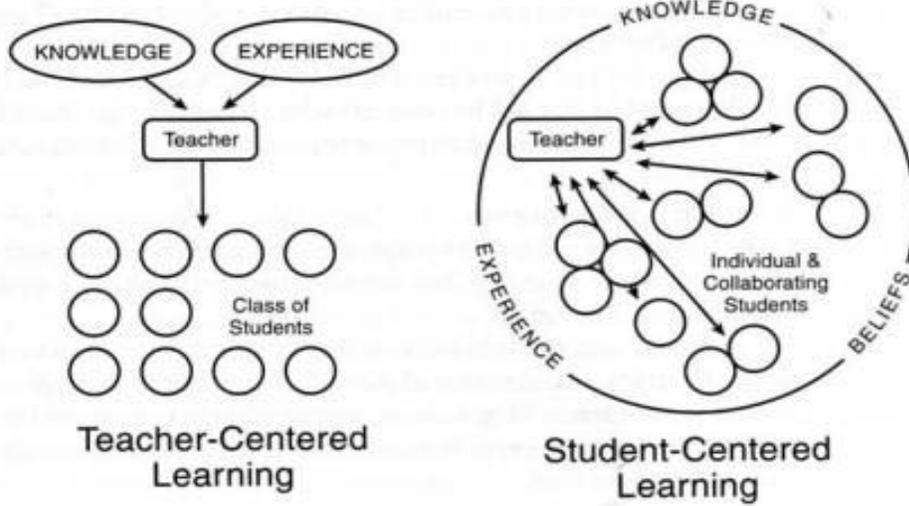


(Simonson et al., 2006, p. 202. As cited by Bushman, C., Cobb, J., Conley, K., Crofts, C. and

Roemmich, R., 2008, Student-Centered Learning Experience section)

**Table 2: Course Design Methods**

| Mode of Delivery | Method | Estimated Cost | Compensation |
|---|---|---|---|
| Face-to-face | Instructor as Designer | $3,500 | Course developed during working hours |
| Online Course | Instructor as Designer | $20,000 | Course developed during working hours |
| Online Course | Course Team | $70,000 | Additional staff support, course developed during working hours |

(Corbett & Visser, 2006, p. 46)

**Table 3: Instructional faculty in degree-granting institutions by employment status**

|                    | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2005 |
|--------------------|------|------|------|------|------|------|------|------|
| # of Faculty (000s) |      |      |      |      |      |      |      |      |
| Full-time          | 369  | 440  | 450  | 459  | 530  | 551  | 604  | 676  |
| Part-time          | 104  | 188  | 236  | 256  | 295  | 381  | 466  | 615  |
| % Part-time        | 22%  | 30%  | 34%  | 36%  | 36%  | 41%  | 44%  | 48%  |

(National Center for Education Statistics, 2008, cited by Tipple, 2010, Adjunct Faculty section)

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