International Journal of Multidisciplinary Engineering in Current Research
Volume 7, Issue 4, April 2022, http://ijmec.com/

The use of digital technology for technical learners: A teaching and learning view

K. Shailaja Rani*1, Mekala Venkatesham*2
*1Assistant professor of English at Guru Nanak institutions technical campus (autonomous), Hyderabad, Telangana, India.
*2Assistant professor of English at Guru Nanak institutions technical campus (autonomous), Hyderabad, Telangana. India.

Abstract

Students today, sometimes referred to as the "digital generation," employ an impressive array of electronic resources in a number of contexts. The findings presented here, however, suggest that pupils may benefit from the use of additional old-fashioned instructional technology. Course-learning technology provided by colleges is used by instructors, though. Besides this probable incongruity between loving professors and students, the survey found enormous differences in preferences and usage throughout disciplines, particularly between students and instructors of business and economics as well as the fine arts. Instructional technology, digital technology, teaching, learning, and digital natives are some of the subjects covered in this course.

Keywords: It's all about teaching and learning with the use of instructional technology and digital technology.

Introduction

As the most technologically adept and graphically sophisticated generation in recent memory, today's pupils are considered the pinnacle of society's intellectual capital (Stamats, 2008). College students are learning less and less and this technical proficiency is considered as the primary culprit in the demise of teaching (O'Brien, 2010), even though this is a recent claim. The assumption that students are spending a lot of time on Web 2.0 sites like Blogging, Facebook, and Twitter, or in a virtual environment interacting with gamers from all over may be based on a misconception. if kids aren't studying as much as they used to because of technology, then teachers haven't connected the electronic infrastructure to create a learning and teaching environment (Ives & Jarvenpaa, 1996). Students may be more engaged in their education if they are made aware of the connection between the abilities they learn in the classroom and the real-world applications of those talents, according to D'Aloisio (2006). Technology has the potential to be a driving force behind a new era of knowledge dissemination. As opposed to using technology for its entertainment and social value, students can learn to use instructional technologies as a skill set for the future and gain greater professional

experience as a result of their efforts. Learning time will be reduced due to the fact that both teachers and students are using technology in an efficient manner.

methods of teaching that are used in the classroom and at home (e.g., spell checking documents, electronic library access, and electronic exchange between teacher and student and amongst group members). As stated in Munuera, Peterson, and Cunningham (2002), "[a]ny new educational technology should] allow a student to learn additional, quicker, and/or easier" (p. 14). Due to the dual nature of instructional technology, which tries to be accepted by both students and teachers in order to realize its full potential, this study aims to better understand instructional technology as a pedagogical instrument in learning and teaching. As a result, by comparing the findings of the two studies given here, we may better understand how students and staff perceive the use of instructional technology and draw conclusions about how these technologies affect student performance in the course. We provide an overview of educational literature relating to the use of technology in marketing education. Specifically, The results of the two distinct experiments are then presented. Finally, we will make use of these early findings to identify potential directions for future research efforts.

Technology in the Marketing Schoolroom

"Instructional technology contains software and hardware, approaches and tools that are utilized indirectly or directly in helping, attractive and increasing the efficiency and effectiveness of learning, teaching and practicing marketing, awareness" (Malhotra 2002) in the novel millennium (p. 1). "Instructional technology comprises electronic and non-electronic and electronic instruments, techniques, and methodologies that are employed in the delivery of course materials and/or in a 'backroom' support role," Peterson et al. (2002) said (p. 9). When it comes to teaching and learning in general, technology has become a non-negotiable part of the landscape. In marketing education, there have been two approaches to the topic of instructional technology. The wide perspective looks at overall developments in classroom technology and whether or not this digital presence has resulted in positive outcomes for learning and teaching in the classrooms. In a second, more focused way, we've reported on the ways in which specific Web 2.0 technologies have been used in marketing classrooms through online activities and project. An summary of the most current outcomes in each of the areas has been presented in this section.

Broad Viewpoint

In educational research, instructional technology has been examined in terms of how it is used and how it affects students' learning. Peterson et al. (2002) conducted two small-scale, exploratory studies to examine the applications and perceptions of instructional technology in the university

teaching environment. Ms-PowerPoint presentations were mentioned by over two-thirds of the professors who responded to their survey of 50 marketing professors as the most often used instructional tool. According to the authors' 260 responses in a comparison study of students registered in a preliminary marketing course, the most useful technologies were considered to be those related with the in-class projection of visual aids. Students who were exposed to university teachers utilizing Ms-PowerPoint were also surveyed by Ferrell (2002) and Ferrell. They planned to conduct a survey of students to see how they felt about the usage of instructional technology in the classroom ("overused," "not overused"). PowerPoint technology was not overloaded by most students (ratio of 2:1) in their study. These comparable outcomes are not surprising, given the nascent stage of educational technology at the time. Microsoft Powerpoint (or other similar presentation software) was a

Over time, displacing the use of above-transparency technology. When it comes to student learning, involvement and pleasure, Ueltschy (2001) found that using interactive technology had favorable benefits in all three areas. Clarke, Flaherty, and Mottner (2001) examined whether or whether there were changes in student assessments of instructional technology and their insights about learning, their aptitude to obtain a work, and their predictable job performance. The outcomes of three students were compared to a total of 12 educational technology tools. According to the authors, students are aware of eight tools that can have a large impact on their ability to study, ten tools that can have a substantial impact on their ability to obtain a career, and seven tools that can have a significant impact on the predicted presentation of a career. The association between the use of instructional technology and favorable outcomes has received more recent support from Robinson (2006). It was an unusual twist in his analysis because the promise of presentation results led to a favorable hubris toward instructional technology use, he found. As a result, students were more likely to have a positive attitude toward new instructional technology when they realized that it would increase their chances of achieving their goals. Positive attitudes toward instructional technologies were the most important predictor of students' choices for technology-based learning systems, according to Hunt, Eagle, and Kitchen (2004). According to D'Aloisio (2006), these findings support the idea that educational technologies might serve as resources to help students achieve their particular goals within the educational process. Despite the fact that research like the ones mentioned here tend to show a more favourable perspective of educational technologies, Strauss and Hill (2007) found that web-based instructional tools led to student satisfaction. Nearly half of the marketing students who took part in the research did not have access to web-based instructional technologies when they were in the traditional classroom setting. There is a saturation point at which more tools demand

too much time and energy for the information contributed in the end, and this raises the question of whether or not students want instructional technology tools to be easier to use.

The Teacher and Technology

After doing an investigation in the mid-2000s, Cengage Learning conducted a study to better understand how teachers use technology to learn and teach Teachers from colleges and universities all around India were subjected to an exclusive review to learn more about how they spend their free time while preparing for and delivering and administering their teaching duties. According to the company's typical delineation of disciplines, the survey was conducted to professors from a wide range of academic fields: social sciences, mathematics and science, humanities, vocational, and business and economics. During the survey, 1,617 working responses were received. Initially, the data were analyzed to see if there were any disparities in the use of instructional technology amongst academic areas. When it comes to course content, there appears to be no difference between the traditional specializations. To put it another way, professors in fields ranging from the social sciences to business and economics have essentially the same utilitarian values when it comes to the following:

- **Method of Delivery**

Produce printed manuals and pamphlets to share with students Print and electronic media combined As far as I'm concerned, it's

- **Customization**

- There is no option for modification.

- Make a choice on what you want to buy and when you want it

- Unused or unassigned material should be disposed of

- Choosing publisher content and placing an order for it Include content from other sources. Make use of your own material

- **Reference Content**

- Searchable reference material on the topic at hand There isn't any reference material included. a predetermined collection of guiding principles a tool for adding citations to the course curriculum

- **Student Experience**

- There is no technology geared toward students. Student aids that are minimal and straightforward The use of cutting-edge technologies to manage courses.

- **Professor Experience**

There are no course management tools based on technology. Useful and straightforward teaching aids Educators' access to cutting-edge technology solutions

More rather than less technology was shown to be more beneficial for both students and teachers in terms of technology solutions. In addition, instructors valued having a mix of printed and electronic resources highly as a teaching aid. The utility values of various

teaching components did not appear to differ across disciplines, according to the findings of this round of the company's research. This section of the research also included a look at teaching tasks. So, how do educators envision their own roles in the classroom, and what, if any, impact does technology have? Seven kinds of educational activities were identified in the survey responses: (a) course preparation, (b) course management, (c) teaching, (d) assignments, (e) assessment, (f) grading, and (g) overall general needs. When it came to course design and administration, technology proved to be the most difficult obstacle to overcome. To put it another way, faculty members talked about how difficult it was to create courses and participate in online learning management systems at their universities using technology. Once the course was produced and maintained on the university e-system, instructors could finish the teaching process without the need to master new technologies, but technology was considered useful for producing interactive teaching material. Learning new technologies was considered as a challenge in the educational process as a whole, but assignments, assessments, and grading did not place a high priority on it. It's interesting to note that none of the seven categories of instructional activities included technology as one of the most significant jobs. It was our goal to better understand the work processes of instructors and identify the most difficult activities within the workflow at this stage of our research with our client. both sections of the study demonstrated the importance and difficulty of instructional technology.

The research project. Next, we'll talk about a different phase of study that was more focused on instructional technologies and included both teachers and students.

Student and Instructors: Technology Use, Appointment, and Learning Results

There is no conclusive evidence that instructional technology has a positive effect on student learning despite the many studies that have been conducted in this area, according to Peterson et al. (2002). (p.13)

Cengage Learning, in cooperation with adventures, undertook a survey of instructors and students in late 2009 to examine their views on the usage of digital tools in the classroom and their learning outcomes.

Field	Instructor	Student
Engineering	63%	72%
Business	62%	65%
Education	52%	44%
Social sciences	52%	58%
Humanities	44%	36%

International Journal of Multidisciplinary Engineering in Current Research
Volume 7, Issue 4, April 2022, http://ijmec.com/

Physical sciences and math	45%	60%
Life sciences	30%	57%
Fine arts	24%	49%

Table 1. the Instructor and Student Preferences for Technology by field

A total of 760 students and 300 instructors successfully completed the exam. We are unable to publish the findings in their entirety due to the research's sensitivity as a trade secret. As a result, adventure's data gathering and subsequent analysis procedures were conducted in accordance with stringent research protocols. If necessary, up to three sets of results were generated for each respondent (students and instructors) depending on the question, including frequency tables, tabular data and/or cross-tabs, as well as chi square or Fisher's test.

The following were the primary research concerns:

How do students and teachers differ in their use of technology?

What do students and instructors think about the utilization of technology, the support provided by technology, and the usefulness of digital tools? tructor and Student Preferences for Technology by field

Technology Preferences

Mc Corkle et al. (2001) suggested that "whereas some teachers follow the differences in [business] technology with trepidation and discomfort, their students are declaring 'I want additional more' with prepared intemperance and willing experimentation" (paraphrasing) (p. 16). Thus, questions related to technology preferences were designed to identify the level of technology use required in the process of learning and teaching. Consequently, It was revealed that in addition to students and instructor students, there may be significant differences between fields and genders when it comes to technology preferences. Most students (52%) supported using "a great deal" of technology in courses taught by 46 % of instructors. Despite this, there were notable differences between disciplines and gender. Table 1 shows that instructor and student choices for technology varied significantly depending on the topic of study. When it came to technology preferences, there was a wide disparity between professors and students in engineering and business. Life Sciences and Fine Arts, as well as a wide range of choices in the Math and Physical Sciences. Students in these disciplines like to attend courses that use a lot of technology, yet the majority of teachers in these fields don't like to use a lot of technology. The instructor and student preferences differed from those in the physical sciences and math, but they were not as extreme as in other subjects. Compared to women, men were more likely to enroll in courses that utilized high-quality technology (p .01). Given the multitude of studies that show a gender discrepancy in the use of computers and technology, this finding is not surprising (Kim & Bagaka, 2005). Male college students are more likely than female college students to describe themselves as early

adopters of technology, according to a study by the European Centre for Advanced Research (ECAR) (Salaway, Caruso 2009 Smith). Instructors' choices for delivering a course that is heavily reliant on technology were not influenced by gender. As technology preferences differ amongst students and teachers, fields, and genders, the Cengage /adventure study's research question went beyond generalizations to find out whether instructors and students support, use, and prefer specific digital technologies.

Perceptions of Use, Support, and Digital Tools

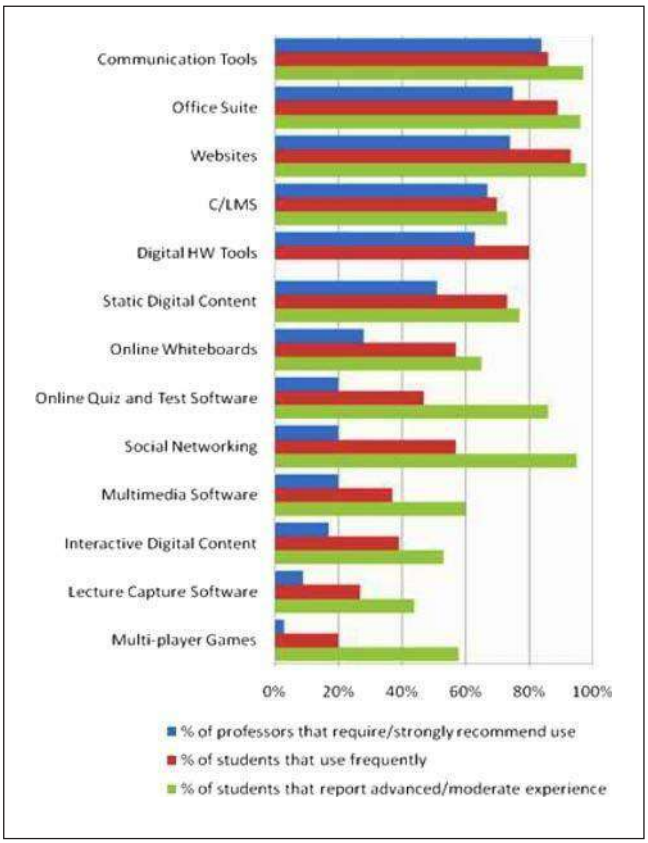
Teachers and students were polled on how they felt about the usage of technology in the classroom. Students were found to be using instructional technology effectively by 61 percent of professors. Similarly, 66% of student respondents said that at least 75% of instructors were using instructional technology effectively. There was a significant correlation between students' choice for technology in the classroom and the instructor's assessed effectiveness in utilizing instructional technology (p >.01). A self-selection bias, on the other hand, may have occurred because students who favored instructional technology chose classes where it was heavily utilized and hence likely utilized more efficiently. Students' perceptions of an instructor's effective use of instructional technology did not show any statistical variations between fields or GPAs. Support. However, there was a noticeable difference in the level of perceived use.

There were discrepancies in the ways in which teachers and students saw each other's assistance. Student preference for using technology in a course was statistically significant (p .01) when compared to teachers' perceived assistance. While 65% of teachers believed that students were technologically knowledgeable, just 42% of students who took the survey felt that teachers had adequately trained and supported them in the use of instructional technology. "Only around a third of students said that most or almost all of their professors gave them enough instruction for the IT in their courses," according to an ECAR multi-school study (Smith et al., 2009, p. 17). Students' proficiency in digital media may not necessarily translate into proficiency in instructional technology. This is a critical point to keep in mind. All pupils' technology abilities and confidence aren't the same, according to Robinson (2006), who made a similar observation. In this case, a student may be able to see that a specific instructional technology might be beneficial but lack the competence to use it, thus the classroom instructor provides training and support.

Digital technology. Many digital tools are available in the market nowadays. Traditional digital tools (such as web pages, e-mail, Microsoft Office, PDFs, and instant messaging) were separated from social and interactive digital tools (such as Wikis, blogs, podcasts, simulations, games, and virtual worlds) and course/learning digital tools (such as online quizzes and tests, lecture capture,

whiteboards, virtual classes, and course/learning management systems) for the purpose of this study. Figure 1 illustrates the discrepancies between instructor expectations and student use and experience with various digital tools. Each of the three types of digital tools was then rated on its perceived usefulness by both students and instructors (Table 2). Students and instructors have varying opinions about the success of the course. While 73% of students thought traditional digital technologies were good teaching tools, only 52% of educators agreed. In contrast, only 30 percent of students thought digital tools for learning were beneficial, despite 55 percent of teachers believing so. Even while the use of social and interactive digital tools was viewed by students and educators alike, there were some differences. Teachers were polled on how they felt about the impact of technology on student learning and participation. As the use of digital tools grew, 78 percent of the teachers said that student involvement in a course had risen. A high association was found between improved engagement and improved learning outcomes, with 87 percent of instructors reporting that learning outcomes had also improved (p .01). P >.01 indicates a substantial impact on student engagement and learning was the instructor's preference for technology in the classroom. In other words, instructors who used a lot of technology in their courses were more likely to believe that student engagement and learning outcomes had increased. When asked which digital learning resources they felt were most important to their students' engagement and progress, the instructors who strongly agreed said so Percentage of a population is seen in Table 3.

International Journal of Multidisciplinary Engineering in Current Research
Volume 7, Issue 4, April 2022, http://ijmec.com/



Student use frequency and experience with digital tools are depicted in Figure 1.

Table 2.

Digital Tool	Instructor	Student
Traditional	51%	72%
Social and interactive	44%	43%
Course/learning	53%	32%

These instructors feel that each of the digital tools used in the course has an impact on student engagement and learning outcomes.

58 percent of the students who participated in the survey said that instructional technology had a positive impact on their learning. When instructors use and promote instructional technology, students are more likely to find it interesting and useful in their studies (p >.01), according to this study. As can be seen in Figure 2, there is a strong correlation between the digital tools required by instructors and the level of involvement students have with such resources. According to Figure 3, students who believe that technology has helped them

become more engaged in their studies are more likely to utilize digital tools frequently.

courses. More engaged students tended to use traditional digital resources more frequently than course/learning and social/interactive tools (p .01).

Table 3. Digital Tools: Instructor Perceptions of Engagement and Learning Instructor and Student Perc

Digital Tool	Engagement	Learning Outcomes
Communication tools	85%	85%
Websites	80%	81%
Office suite	75%	77%
Digital homework tools	75%	77%
Course/learning	71%	72%
Static digital content	54%	56%
Online whiteboards	35%	36%
Online quiz and test software	24%	27%
Multimedia software	24%	26%
Social networking	22%	26%
Interactive digital content	21%	24%
Lecture capture software	10%	11%
Multiplayer games	5%	5%

eptions of Effectiveness

International Journal of Multidisciplinary Engineering in Current Research
Volume 7, Issue 4, April 2022, http://ijmec.com/

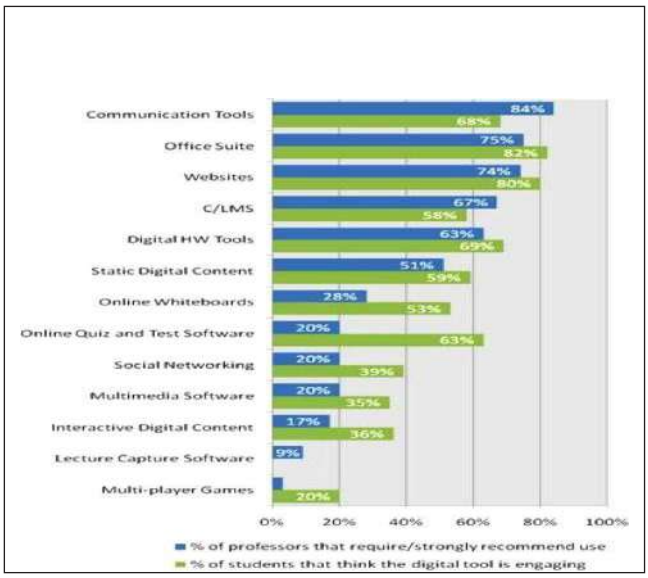


Figure2. Digitaltools: Instructionrequirementandstudent engagement

Considering that instructors thought conventional tools were less successful, this conclusion is extremely intriguing.

Generally speaking, students prefer and use digital tools in academic work more than their instructors expect. This is in line with the idea that students desire and are willing to try out more educational technologies.

International Journal of Multidisciplinary Engineering in Current Research
Volume 7, Issue 4, April 2022, http://ijmec.com/

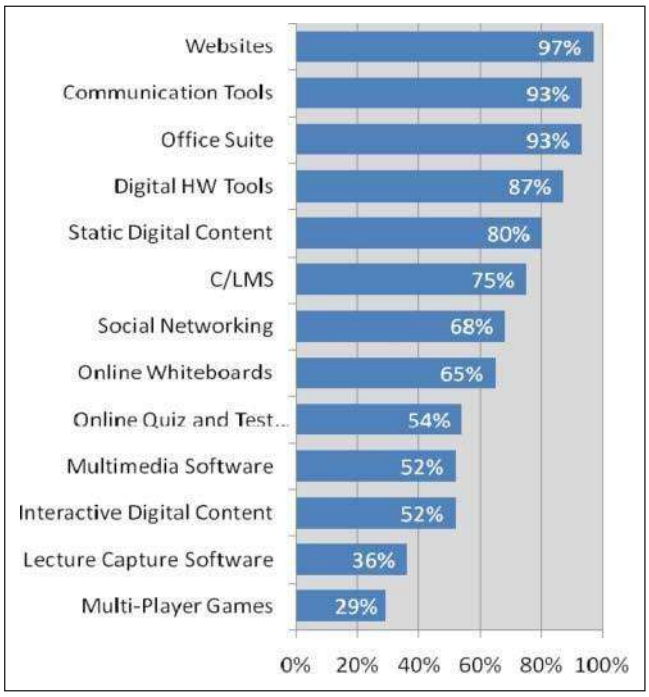


Figure 3. Digital tool use frequency by student

According to the study by McCorkle and coworkers (2001). As a result, instructional technology appears to be having a good impact on learning and teaching. Thus, students and instructors both saw a link between using instructional technology and their involvement in the learning process, as well as their satisfaction with the outcomes.

Summary

The findings presented here from two significant studies add to our understanding of instructional technologies from the perspectives of both students and teachers. Overall, it appears both students and instructors are willing to study and teach with a range of digital tools. The findings of this study shed light on problems and concerns in three key areas: disciplinary distinctions, metateaching requirements, and tool sophistication.

Dissimilarities between fields of study

There are disciplinary variances in faculty preferences for instructional technology, despite faculty across disciplines valuing the utility of diverse course materials at equal levels. Faculty in the fine arts and life sciences, in contrast to their counterparts in engineering and business, do not show a significant preference for teaching courses using technology. Students, on the other hand, did not exhibit these disciplinary distinctions. As a result, it appears that college students, regardless of discipline, are interested in educational technology.

Meta teaching

Despite the fact that kids are eager to experiment with instructional technology, there is a catch. In other words, whether they are digital natives or not, students want their professors to provide assistance with technology. Instructors will need to teach students how to use instructional technology in addition to teaching them about the subject matter, whether in class or outside of it. It is possible that this form of meta-teaching conflicts with the fact that instructors in the first phase of this research did not consider technology as a key task in any of seven educational activities. In all seven of the educational activities, teaching about instructional technology would be a significant effort. Currently, it's possible that technology isn't as important as the more traditional aspects of teaching a class.

Tool Sophistication

Traditional teaching methods appear to be adequate for student involvement. A more sophisticated or advanced Web 2.0 digital tool does not appear to be required for improving the educational experience. Despite the fact that many college students utilize these modern digital tools to communicate and have fun, they do not believe that they are essential for academic success. When students utilize contemporary digital technologies for their own gain, they may not expect to use them for instructional objectives as well. Although today's college students have grown up in a digital age, they may not have enough time to fully appreciate the educational benefits of today's digital technologies in their four years of college.

Despite this, some kids are open to utilizing more modern tools if given the chance and assistance to do so. There has been a flurry of activity in the field of educational technology throughout the last decade. To further educational scholarship, this study examines teaching and learning from the perspectives of a teacher-student dyad for the first time in a decade. The findings of these two studies have a broad impact on scholarly study into classroom integration patterns and how they relate to outcomes. Students' engagement and learning outcomes are linked to their use of various technological tools, which are outlined in the research.

References

1. Science 317, 472-476. Bainbridge, W. S. (2007) Virtual worlds' promise for scientific inquiry.

2. Bal, A., Crittenden, V. L., Halvorson, W., Pitt, L. F., & Parent, M. (2010, May). Second best in second life: Teaching marketing cases in a virtual world environment. Presentation at the Academy of Marketing Science Annual Conference, Portland, OR.Barner-Rasmussen, M. (1999, April). Higher education institutions' use of virtual interactive learning environments: a strategic review Papers from the Nordic Workshop on Computer-Supported Collaborative Learning, edited by U. Nuldén and C. Hardless (pp. 1-10). The city of Göteborg in the country of Sweden. Accessed at /nulden/Publ.PDF.CSCLWS.pdf on the viktoria website

3. Research by Boostrom, Kurthakoti, and Summey was funded by the National

Institutes of Health (NIH) (2009). Class communication can be improved by the use of separate social media networks. Academic Journal of Marketing Education, 19(1), 37-41.

4. The authors of this paper are J. B. Caruso and George Salaway, respectively (2007, September). An examination of undergraduates' use of technology by the ECAR in 2007. Applied Research at the EDUCAUSE Center Retrieved from: http://net.educause.edu/ir/library/pdf/ERS0706/ekf0706.pdf

5. This is the fifth of the five papers in this series by Clarke III, Flaherty B., and Mottin S. (2001). How students view instructional technology. The Journal of Marketing Education, 23, 169–177.

6. Cronin, J. J. 6. (2009). Building a marketing wiki from scratch as part of a Web 2.0 upgrade project. 31, 66-75, in Journal of Marketing Education.

7. Seventh, A. D'Aloisio (2006). Motivating pupils by making them aware of the natural link between college and the workplace. The Journal of College Teaching, 54, 225–230.

8. In a study by Day and Kumar (2008) (2010). An example of how SMS text messaging may be used to create personalised and engaging experiences in large classes: A beer game Journal of Innovative Education, 8, 129-136.

9. It's all about the Ferrells, and it's all about the L. (2002). In the classroom, evaluating the use of instructional technology. Advertising & Marketing Education, 12(3), 19-24.

10.Journal of Marketing Education, 30, 93-105, D. E. Hansen (2008), Knowledge transfer in online learning contexts.

11.The name of the author is H. Hu (2009). Design and evaluation of a project using an international virtual team of undergraduates. 19(1): 17-22 in the Marketing Education Review

12.. Hunt, L., Eagle, L., and Kitchen, P. J. (in preparation) (2004). The requirement for a better match between marketing education and technology or a better match between the two? 26: 75-88 in Journal of Marketing Education

13.A. L. Jarvenpaa, B. J. Ives, and S. L. (1996). When it comes to studying for business degrees, will the internet make a difference? The Sloan Management Review, 37(3), 33-42.

14.As cited in Kim, S. H. & Bagaka, J. (2005). Teacher methods and classroom features have a significant impact on students' use of electronic tools, according to a new study. 5(3/4), Contemporary Technology Issues in Teacher Education. According to article 1.cfm from the CiteJournal website, vol. 5, no. 3, current practice,

15.Malhotra, N. K. (2002). Marketing education in the new millennium: integrating technology. The Marketing Education Review, 12(3), 1-5.

16.It's been a long time since we've seen the likes of McCorkle, Alexander and Reardon in the same room (2001). Marketing education and corporate technology integration: Using technology champions to help spread the

word. Marketing Education Journal, 23(1), 16-24.

A. J. Newman and C. M. Hermans (2008). A virtual international multi-group MBA/practitioner collaborative effort that is breaking the mold of MBA delivery. Academic Journal of Marketing Education, 18(1), 9-14.

17.The Nielsen Company was founded in 1997. (2010, June 15). One of every four-and-a-half minutes spent online is now spent on social networks or blogs. Extrapolated from "Social media accounts for 22 percent of internet time," at http://blog.nielsen.com/nielsenwire/online mobile/ U. Nuldén is the author of the paper (1999, April). Research and practice in education: a framework. Papers from the Nordic Workshop on Computer-Supported Collaborative Learning, edited by U. Nuldén and C. Hardless (pp. 67-88). taken from http://www.viktoria.se/ nulden/Publ/PDF/CSCLWS.pdf (accessed on April 22, 2019).

18. 18th - O'Brien, K. (2010, July 10). What happened to the idea of a college education? The New York Times. What happened to studying? was a piece published in the Boston Globe on July 4, 2010. "Peterson," "Album," "Munuera," and "Cunningham" are just few of the names of the researchers that contributed to this study, which was published in the journal PLOS One (2002). Use of instructional technology in marketing education is discussed. Academic Journal of Marketing Research, 12(3), pp. 7-17.

19.Twenty-ninth (2006). Examining the factors that influence students' desire to use technology. In the 16th issue of the Marketing Education Review, pages 79-88 are discussed.

20.A. Rzewnicki, number 20. (2007). In Second Life, avatars of professors began to work. Professors' second lives have been documented at http://www.mgt.ncsuexp.php/index-exp-php/profiles/profile-feature/professors-second-life (2009). 2009's ECAR study on college students and information technology Volume 6, EDUCAUSE Center for Applied Research (ECAR). theECARStudy of UndergraduateStu/187215, found at http://www.educuse.edu/Resources

21. Stamats, Inc., number twenty-one (2008). Today's and tomorrow's students. The Board of Trustees at Lyon College, Batesville, AR, received this report. The Strauss-Hill Collaboration (2007). Use of web-based educational resources by students in traditional classrooms: laggards. 17(3): 65-67 in the Marketing Education Review (MER).

22. Tuten, T. (2009). Marketing plans in Second Life are based on a combination of real-world experience and Second Life's virtual environment. Advertising & Marketing Education, 19(1), 1–5.

23. The 23. Ueltschy, L. C. (2001). An investigation of how to include interactive technology into the marketing curriculum. 23, 63-72; Journal of Marketing Education

24. Wong, G. (2006). Educators use "Second Life" as an online resource.

Cnn.com/2006/TECH/11/13/second.life.university/index html was the source of this information

25. Allan, D., Wood N. T., & Solomon M. R. (2008). You've arrived in the matrix! Second Life for e-learning. The Marketing Education Review, 18(2), 47-53.

26. 26. J. P. Workman (2008). The advantages and disadvantages of using wikis in the classroom Academic Journal of Marketing Education, 18(1), 19-24

27. Zahay, D., and Fredricks, E. (2001). (2009). Using podcasts to enhance the delivery of an Internet marketing course focused on project-based learning. In Marketing Education Review, 19(1), 57-63.