Chalkboards to Cybercourses:
The Internet and Marketing Education

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Abstract

The Internet leads the way to ever-changing concepts in marketing education. The changing state of technology necessitates an equally rapid synthesis of literature. Our study serves as an investigation of research concerning the Internet and marketing education. We synthesize 80 articles featuring the Internet and marketing education and classify the literature into seven components. These areas include: 1) active learning, 2) Internet marketing degree requirement, 3) marketing department websites, 4) pedagogical obstacles, 5) student benefits and obstacles, 6) distance learning courses, and 7) the future of marketing education. We then systematically identify gaps in the research, in order to provide streams for future study in this evolving area. The emerging gaps include: e-ethics in marketing, collapsing international boundaries, technology and marketing department value, and the infinite "Internet2". We ultimately address the state of Internet based education, and how the state of the field relates with the gaps in literature. Our research targets the marketing professor, doctoral students in marketing, and educational institutions, as each may be profoundly impacted by the body of knowledge that has emerged as marketing classrooms have evolved from the "chalkboard to the cybercourse".

Introduction

Just as the business world is in a constant state of flux and evolution, so is the technologically advancing world in which marketing academics operate. The "4 Ps" (and Cs) of marketing cannot be conceptualized without consideration of technological implications. The Internet serves as a *supplement* to the traditional marketing education, with aims of maintaining students' interest and involvement in marketing. The Internet rounds out a marketing education, as it is both a class-based exercise tool *and* an analytical problem-solving tool.

Multiple papers and special issues relating to the Internet and marketing education depict the high interest in the role of the Internet in marketing education as a topic of interest. The topic now demands a systematic synthesis of existing knowledge. A better understanding of the adoption, use, effectiveness, role, and impact of technology in the marketing classroom is needed (Malhotra 2002). We provide a central resource for future work regarding the use of the Internet specific to marketing or marketing related education to fill this void.

With the demand for a conceptual literature review in mind, our objectives are:
1) to complete an exhaustive review of the literature surrounding the Internet and marketing education, 2) to present comprehensive information in concept-based categories, and 3) to surface gaps from which future research may be drawn. Our synthesis strives to be a product of a complete conceptual structuring of the topic under review, and to bring a point of reference to this rapidly advancing topic of technological research in marketing education.

A contextual review of the many works regarding the Internet and marketing academia (e.g., Malhotra, Dixit, and Uslay 2003) on high technology in marketing education breaks literature into three major issues. The first issue is evaluative (e.g., how Internet-based education compares with traditional education, how pedagogical advances result from new technology). Secondly, strategic issues include sustainable competitive advantages, institutional reputation, high quality programs, unique courseware, and the customization of offerings tailored to individual student needs. Further strategic issues and adaptations include technological uncertainty, competitive volatility, integration of R&D and marketing,

understanding user needs, product development, strategic alliances and partnerships, protection of intellectual property, and promotion (Mohr and Jakki 2000). Finally, implementation issues such as integration into classroom learning environment (Young and Mark 2001) have arisen in the technology-based marketing literature.

We further explore these broad streams to gain insights specific to the Internet in marketing education. In the following section, we discuss the methodology (i.e., how we have classified the literature into seven conceptually based components and identified gaps in the extant research basin). We then discuss each research component and individual gaps in the literature. We conclude with a discussion and directions for future research.

Method

Sampling

We designed this study to examine all full-length (i.e., no research-in-brief) scholarly studies published from 1995 to 2003 that address the Internet and marketing education. The year 1995 was selected as the first year of inclusion, as that is the year that the first study to address the Internet as it relates to marketing education. The authors compiled a literature review (guided by Watson (2002)) via the Internet and by reading through table of contents in journals, which may contain studies on the Internet and marketing education. The selected outlets overlap marketing-specific education with technology via high standards of scholarship. Inclusion of articles is based a prior publication record of academically reviewed articles concerning both the Internet and marketing-related education. The authors read each abstract of potential sources in order to identify articles for inclusion in the study; any questionable articles were completely read and analyzed before inclusion. To avoid possible omission of articles, we cross-checked articles listed in the reference sections of identified articles, and ran a computer search on search terms such as "technology", "Internet", and "distance learning" into multiple library databases to confirm our sample. We only set to include academic studies; however, popular press articles

on the topic were used as a secondary source. The complete sample, over the span of one year, was read and summarized into a chart listing: the author(s)' name, paper title, hypotheses, research questions, method, and findings.

Our resulting sample contained 80 articles—which provide insight on technological advances in education, with specific mention of marketing education. Most of these studies were found in marketing, technology, or education-related journals. Table 1, below specifies the sources used in the study.

Table 1 about here

Coding of Manuscripts

Two authors of this paper conducted the final coding of the articles, and independently coded each of the 80 manuscripts included in the study. A third author verified the coding of the articles for reliability purposes. We analyzed existing literature, and if an issue was covered by at least two studies, we constructed a concept-based component. We collapsed emerging coding categories into a more manageable seven categories.

Classifying the Literature

We deconstructed the literature into seven respective categories. The resulting components are: active learning, Internet marketing degree requirement, marketing department websites, pedagogical obstacles, students' perceived value, distance learning courses, and the future of marketing education. For each component, we overview relevant findings of the respective author(s), as well as any study details of note. Table 2, below, depicts the components of the Internet and education included in our study.

Table 2 about here

Gap Identification

6

To identify gaps in the literature, the authors performed a gap analysis technique. Gap analysis is a divergence between an expected outcome and a delivered outcome (Parasuraman, Zeithmal, and Berry 1985). Gap identification is likewise an outcomes assessment tool, which we use to objectively measure what is expected to be in the literature, versus what components are empirically represented in the literature. Such an analysis may be used to: a) identify future research priorities, b) identify areas where there is either no or too little research in an area, or c) identify areas where the current literature represents a substantial difference in outcomes and/or opinions. Gap analysis comprises a qualitative stage using informal focus groups and a quantitative stage using a survey questionnaire (Bland 2003). Together, the qualitative (e.g., informal focus groups among marketing professors and students, observation of responses to technology in the marketing classroom from a student and a professor's perspective) and quantitative stages (e.g., counting and coding of studies) comprise our gap analysis.

After synthesis of the literature, we identified perceived gaps in the literature; these gaps are thought to serve marketing researchers in future research endeavors. An area was included as a gap if there was little or no published research in a relevant area, or if the area was too new to have received systematic academic research. Furthermore, our gap identification presents possible research questions that are suitable for continuing research on this topic. In the following section, we identify components of the Internet and marketing education in the existing literature.

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Research Components

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Active Learning

The first existing component of the literature on the Internet and marketing education is active learning. Physical information search, online tutorials, and academic resources lend the knowledge-seeker hold a more active role in the learning process. Active learning environments change professors' authority roles; the professor may become one "voice" among many. Such a role shift may result in students becoming more active learners (Sweeney 2001). The Internet hosts many types of activities (Gillentine 2001; Lawson, White and Serge 1998). Maneuvering through sites, databases, and word processors

combines cognition with navigation; likewise, the duality of thinking with maneuvering provides for active learning. This two-way information process lends itself to a learning environment that is not merely "spoon-fed". While educational videos, for example, simply disseminate information to the class; the Internet actively involves both the student and the cognitive process as he or she navigates through sites and assignments.

Class-based Exercise Tool. The Internet is often used in the marketing classroom as an exercise tool. Examples include using the Internet information search and retrieval tool (e.g., via classroom scavenger hunt exercises), or as an electronic mentoring and networking tool (e.g., Internet guests, senior networking and alumni networking exercises). Yet, another tool the Internet serves for marketing students is simulation of a real-world scenario. Through online simulations and role-play, the student becomes an active participant in problem-solving situations, rather than a passive recipient of information.

One unique and successful real-world simulation was done by using a fantasy football league to enhance comprehension of sport marketing components; Gillentine (2001) found that role-play and simulation in the classroom have demonstrated higher levels of student motivation and involvement. Simulating an off-line scenario (e.g., a football league) offers marketing educators instructional opportunities, which only an interactive environment can offer.

e-business Creation. e-business creation is a further aspect of the active learning concept. The Internet provides students with the means to apply marketing knowledge on a first hand basis by actively creating their own e-business (Daly 2001). Rather than merely learning about how a business is run, the students create an e-business and witness firsthand the importance of the marketing component (Daly 2001). With the rise of e-commerce and online business applications (e.g., e-service, e-CRM), creating an e-business provides marketing students applied understanding, and even motivation for further e-marketing related ventures.

Applied Marketing Campaign. A final component of the active learning concept focuses on campaign development. Utilizing the Internet in the marketing classroom is an effective way to study real-world entrepreneurship at the campaign level. Business plans created in the classroom measure how the Internet

is used from product development to live marketing, and from promotions to operations (Lawson, White, and Dimitriadis 1998). Besides developing marketing knowledge, students gain invaluable Internet, e-commerce, and HTML skills (Lawson, White, and Dimitriadis 1998), in addition to teamwork skills. As we can see by these multiple uses involving active learning, the active learning concept is a stronghold of contributions on marketing education research. We now consider adoption of an Internet related marketing course as a degree requirement.

"Internet Marketing" Course Degree Requirement

The impact of implementing a technology rich learning environment in a marketing curriculum is of importance, as the question of requiring "Internet Marketing" or a related course is of much relevance. Marketing departments are at a point where decision-makers must consider the importance of integrating an Internet Marketing course into degree requirements (Mitchell and Strauss 2001). Examples of topics seen in Internet Marketing course syllabi include topics such as the role of the Internet in marketing campaigns, the Internet and market research, account management, CRM, Internet advertising, and elements of Web Design. Similar courses for marketing departments may include new courses (e.g., e-marketing introduction, e-business environment, website design, e-marketing management, Internet information systems, database design/transaction management), re-tooled marketing courses (e.g., e-tailing, Integrated Marketing Communications, Customer Relationship Management, marketing research), and current courses (e.g., principles of marketing, and introduction to business) (Mitchell and Strauss 2001). Such information has value for those faced with as whether or how to revise courses and the overall curricula in order to address high-technology marketing.

Consistency and Generalization. Studies by Benbunan-Fich et al. (2001), Mitchell and Strauss (2001), and Mohr (2000) incorporate the aspect of the Internet as a required course component for a degree in marketing. Integrating technology into teaching and learning is increasing exponentially; however, non-anecdotal evidence of its effectiveness is lacking. Mohr (2000) addressed curricular issues surrounding curriculum components. For instance, the technological market is sufficiently different from conventional marketing; thus, it should be taught within the marketing curriculum (Mohr 2000). However, as not to

overshadow traditional marketing content, Mohr does suggest content design with respect to technology in the marketing classroom (2000).

   Technological Modules.   A framework for integrating information technology into the marketing curriculum has been understood via five technological modules (Benbunan-Fich et al. 2001). The modules are: (1) Web-based communication between instructors and students, (2) the use of a marketing department's website as an educational resource, (3) the Internet as a marketing medium, (4) computer supported market analysis and decision making, and (5) computer enhanced business presentations. These five technological modules can be used for increasing communication competency, marketing skills, critical thinking competency, the ability to evaluate marketing strategies, teamwork competency, managing change competency, and understanding the impact of new media on marketing strategies (Benbunan-Fich et al. 2001)

   Course Implementation.   There is a systematic development and implementation of an interactive course on Internet marketing (Ueltschy 2001; Kaynama and Keesling 2000). A seven-step systems model was used to create the technologically integrated course. This instruction resulted in a higher degree of interactive learning, more effective instruction, enhanced communication and collaboration, and a more accurate assessment of learning effectiveness, in comparison with conventional methods (Kaynama and Keesling 2000). Many of these steps (e.g., defining the purpose of the course, analysis, design, development, implementation, assessment, evaluation) are laid out in marketing departments' websites.

Marketing Department Websites

   A separate, yet smaller, area of the literature focuses on marketing department websites. A departmental website is an integral component to an esteemed marketing department (Preston 2000). Websites of AACSB accredited marketing departments typically provide contact information, basic facts about the department, information about faculty, curriculum and advising information, information about marketing careers, and attempts to generate repeat visits (McBane 1997). While most departments were not required by their institution to have websites, many did so out of motivation to exceed expectations

(Lincoln 2001). After monitoring the homepages and the websites of both colleges and universities, McBane (1997) found a home page for all 324 universities. Of these, 288 had home pages for a college of business, and only 154 marketing departments had home pages (1997).

Pedagogical Obstacles

It is widely accepted that future marketing graduates will increasingly work in a technologically interwoven environment; however, there are problems in integrating information technology in the classroom (Lincoln 2001). Obstacles include learning, executing, and maintaining faculty websites (Lincoln 2001). Some particularly salient obstacles in a high tech-tech marketing environment include: technological uncertainty, competitive volatility, integration of R&D and marketing, understanding user needs, product development, strategic alliances and partnerships, protection of intellectual property, and promotion (Malhotra, Dixit, and Uslay 2003). Some further disadvantages of using computer networks in classrooms include time traps, student detours, online etiquette breaches, and student resistance (Siegel 2000).

Such obstacles are a result of acceleration of technological change, variations in inter-student and inter-faculty technological competencies, and the lack of discipline-specific curriculum on technological competencies (McCorkle, Alexander and Reardon 2001). Hence, McCorkle et al. (2001) provide a solution based on Diffusion of Innovations Theory; the steps are to: 1) identify early adopters, 2) provide technology champions with resources for new technology trials, 3) adopt or reject innovation, and 4) diffuse enhancement through technology champions (2001).

Class Size. Also an obstacle for professors and ultimately students, are larger enrollment numbers in each classroom. The consideration of class size is necessary before choosing to utilize the Internet in the classroom (Karakaya, Ainscough and Chopoorian 2001). Karakaya et al. tested student performance in technology-laden marketing courses, as relative to course enrollment. Student performance was measured with extensive use of multimedia presentations by overall scores in a basic marketing course (Karakaya et al. 2001). The outcome suggested that there is a difference between using the Internet in a large lecture

11

class versus a smaller seminar-type class. Possibly, the Internet and similar technology used for teaching large classes might hinder the learning process (Karakaya et al. 2001).

Divine, Wilson and Daubek (1997) found that students' attitudes towards computers were significantly affected by confidence/non-anxiety and perceived usefulness for small and large class sizes alike. Traditionally, students in large sections performed worse in terms of content knowledge than students in small sections of the same class. However, students with different learning styles perform differently in the same classroom. Divine et al. (1997) showed that these effects of different learning styles may be minimized by the extensive use of multimedia (e.g., Internet-based visuals and sounds) technology in the classroom.

Adoption. Adoption of the Internet is a further area of the literature. Lincoln (2001) tested for the satisfaction and adoption of electronic technology in the classroom to gauge how marketing educators' use of Internet has changed between 1998 and 2000. Three areas of responsibility (teaching, research and service) were tested. Lincoln's findings indicated significant strides in users' adoption of electronic technology in the marketing classroom (2001). Perhaps in time, as educators and students become more comfortable with the Internet and classroom technology, such pedagogical obstacles may dwindle. This leads us to review publications regarding the perceived value to the students.

Student Benefits and Obstacles

Online Benefits to the Student. A further component of the literature discusses the value of the Internet during a marketing education—from the eyes of the student. Skill and personal characteristics identified in this area include: oral communication, teamwork, enthusiasm, motivation, initiative, leadership, commitment, interpersonal skills, organizing, and foreign language competence (Dacko 2001). Overall, students feel that a network facilitates teamwork and access to information, and that it helps meet both student and employer expectations (Dacko 2001).

Graduate versus Undergraduate. The value of the Internet in the marketing classroom, however, differs between undergraduate and graduate students. According to results from Clarke, Flaherty and Mottner (2001), distance-learning technology is better suited for graduate programs than for

12

undergraduate programs. Furthermore, distance-learning students differ in their views of the degree of current emphasis on developing certain skills. For example, distance-learning (IDL) participants found a relatively greater need for emphasis on analytical and planning/organizing skill development. Such a difference may be compared to the differences of skill emphasis desired between undergrads and graduate students.

With another look at graduate education, McCorkle, Alexander and Reardon (2001) present an obstacle to technology-based learning in MBA programs. The role of technological innovation in facilitating (or hindering) business skill development in a technologically-driven learning MBA program can be better understood via two considerations: (1) how and why student needs for marketing and business skill development can differ within and across MBA programs, and (2) how technological innovations can contribute to, or potentially limit the development of specific skills desired by marketing and business students (McCorkle, Alexander and Reardon 2001).

To understand the relationship between the technologies used in the classroom and their contributions to student outcomes. Clarke et al. (2001) found that various educational technology tools affect students' perceptions in three outcome-oriented areas: overall learning, employability, and expected job performance. Students have differing opinions on the impact of technologies on learning, ability to get a job, and performance on the job (Clarke et al. 2001).

Online Distance Learning in Marketing

A separate and substantial component of marketing education and the Internet concentrates on the ever-growing online component of distance learning. Seventy percent of nation's more than 4,000 two- and four-year colleges offered online courses in the year 2000, up from 48% in 1998 (American Foundation of Teachers 2001). According to the *National Center for Education Statistics* (1999), 1.4 million U.S. students are enrolled in credit-bearing distance learning courses in 1997-98. Enrollment in online courses is predicted to rise from the current level of 70,000 to 2.23 million by the year 2002 (Eccles 1999).

In light of the awakening of online/distance education in marketing, Canzer and Brahm (1997) provided a distance education framework with theoretical and applied learning objectives. The pedagogical philosophy of their online course was student centered with a "cybernetic character." Interestingly, the learning materials were organized in the form of "learning units". As far as the interaction component, multiple course conferences were provided at group and individual levels (e.g., help, café, group, professor, video, and textbook conferences); such e-conferencing was structured around individual students (Canzer and Brahm 1997).

As unique as an online course may be, in terms of effectiveness, Clarke, Flaherty and Mottner (2001) found no significant differences between online and offline versions marketing courses. Furthermore Clarke, Flaherty and Mottner (2001) found that the value of the marketing course, expected retention, and increased knowledge appear to be equal.

Real-time or Delay. Online instruction modes may utilize a face-to-face approach and/or two web based approaches. Web-based approaches may be asynchronous (e.g., bulletin boards) or synchronous (e.g., chat rooms) (Sweeny and Ingram 2001). In order to test these respective approaches in the marketing classroom, Sweeney and Ingram measured the outcomes of utilizing the aforementioned tutorial types. Findings indicated that face-to-face tutorials are the most highly rated in terms of effectiveness of the learning environment. While gender and Internet experience did not affect perceptions of different tutorial types, interestingly, ethnicity did. Similarly, Eastman and Owens Swift focused on learning capabilities in an "Online Learner-Centered Marketing Class" (2001). Eastman and Owens Swift (2001) contributed an interesting description of the evolution in distance learning and its progression into online classes.

Distance MBA Courses. In MBA programs and marketing classrooms alike, distance learning requires students to develop two skills: 1) utilizing the distance learning technology, and 2) understanding course content (Smith 2001). However, online MBA courses are rising at a higher rate (than online courses at the undergraduate level) for reasons such as distance, time, and international exposure. Smith (2001) explained differences and similarities between traditional and online MBA courses with the

example of a marketing planning course. Whereas the content and requirements in a traditional course are examinations, case analyses, a team-written marketing plan, and a team presentation of a marketing plan, online course requirements are slightly different. Online course requirements including a competitive team simulation, case analyses, a team written marketing plan, and graded discussion participation. Thus, even at the MBA level, the primary differences between online and offline courses remain via delivery (e.g., the use of email, asynchronous text, CDROM in lieu of physical classrooms and face- to-face interactions) (Smith 2001).

Dacko (2001) also studied the marketing MBA classes and the Internet. He investigated the narrowing of skill development gaps in marketing and MBA programs, finding that the role of innovative technologies for distance learning needs to be understood in terms of skill development. Hence, a skill development survey analyzed MBA students on the variables of various skills (e.g., written/oral communication, planning/organizing, analytical, leadership/interpretation, decision-making, initiative, risk taking, and computing skills). Distance learning participants found a higher need for emphasis on analytical and planning/organizing skill development (Dacko 2001).

Similarly, the doctoral education in the 21st century is dependent on the interactivity, networking, and online libraries. Ellen and Netemeyer (2000) in their research-intensive studies find that the job of a research assistant for multiple professors is much more efficient with the use of the Internet and e-journal locators. By learning how to efficiently navigate online libraries and how to "separate the junk" from the desired content or data as a doctoral student research assistant, the transition to effectively using the Internet for their own research/dissertation work will be much smoother.

Student/Instructor Evaluation. Interestingly, the Internet has been studied in terms of instructor evaluation. For undergraduate courses with a distance approach, the instructor was perceived as being less prepared, less responsive to the questions and the needs of the students, and less enthusiastic (Clarke, Flaherty and Mottner 2001). Bergmann (1999) found instructors must "go the extra mile" with distance classes to ensure the same level of teacher evaluations. Likewise, Clow (1999) investigated interactive distance learning and similarly found that the use of interactive distance learning does impact student

course evaluations. Distance education, as discussed previously, does weigh heavily on the future of the Internet in marketing education.

Future of the Internet in Marketing Education

Ultimately, it is important to understand the past to conceptualize the future possibilities, concerns, problems, and issues that emerge from combining a marketing education and with the Internet. Thus, in this section we will focus on the need for further study on the final category, future implications. The integration of technology into teaching and learning is increasing exponentially; however, non-anecdotal evidence of its effectiveness is lacking.

The future of the Internet in marketing education and the advent of new educational technologies each present more teaching options for marketing educators. Such options include interconnectivity, instant global reach, and multi-media capabilities. The future of the Internet can be effectively used for course design, instructional delivery, dissemination of instructional material, access to useful information, communication beyond class time, improving real world relevance and marketplace currency, globalizing business programs, developing communication skills, building teamwork and interpersonal skills, and providing greater cross-functional orientation (Siegel 1996; 2000).

Yet, the educational theory must drive the adoption of technology, not vice versa (Brown and Floyd 1999). Notably, on comparison of traditional versus hybrid courses, traditional courses were still preferred. Traditional learning is better than online learning because personal contact is vital; however, online learning is better than traditional learning because of self-selection (Haytko 2001). Atwong and Hugstad also found such sentiments in their conceptual piece focusing on Internet technology and the future of marketing education (1997). Atwong and Hugstad concluded that Internet features relevant to marketing education include instant global reach, interconnectivity, multi-media capabilities, improvement of real world capabilities, building interpersonal skills, dissemination of information, and communication beyond class time (1997). Such positive features suggest that using the Internet in marketing education has benefits that exceed the foreseen drawbacks (e.g., technological lags).

16

Gap Identification

While much insight has been revealed in the seven respective components, gaps in the literature do remain, and are ample for future research. That is, the following issues pertinent to marketing education and the Internet would add to the current body of knowledge. Each of the areas discussed below, "The Infinite Internet2", "Collapsing International Boundaries", "e-Ethics in Marketing Education", and "Technology and Marketing Department Value Creation", have received little or no primary focus in the literature. Figure 1, below, depicts these four gaps, which stem from the core research areas surrounding marketing education and the Internet.

Insert Figure 1 about here

"The Infinite Internet2"

The first neglected area of study in the marketing education related literature is the "Internet2", also referred to as the ultranet or the meganet. As of the beginning of 2004, 205 universities and 60 corporations are participating in the "Internet2" project- a project designed to recreate those partnerships (e.g., government, international, industry) that actually kindled the beginning of the Internet as it is known today. Each Internet2 University has committed to giving premium networking on their home campus. This premium networking is done by connective to a "high-performance backbone network", in addition to supporting network application development on campus. The initiative is a joint effort of the *California Institute for Telecommunications and Information Technology,* or *CAL- IT,* and *Southern California NGI.* These universities are currently collaborating with several companies to work on applications that include global trading, multi-modal disabled access and wireless Web services for the faster, more powerful Internet of the future (http://www.internet2.edu). The Internet2 functions as a research tool for educational, corporate, and governmental institutions, thus access by the public is not granted (http://www.internet2.edu).

17

The mission of the Internet2 is to develop and to deploy advancements in both network applications and technologies (http://www.internet2.edu). Specifically, goals of the Internet2 include the transfer of technology and experience to the global production Internet, the enabling of a new generation of applications, and the re-creation of leading edge network capability (http://www.internet2.edu). Focus areas of the Internet2 include a) advanced network infrastructure, b) middleware (i.e., a layer of software between the network and the applications), c) engineering (e.g., routing, security, multicasting), d) advanced applications (e.g., virtual laboratories, distributed learning, digital libraries), and e) partnerships (e.g., governmental and educational (http://www.internet2.edu). The next-generation Internet will allow the sharing of entire databases and terabytes of real-time streaming video, in lieu of the size limitations of today's Internet with comparatively low-quality audio and video, which may turn some marketing educators off.

The new modes of Internet communication use the "infinite connection" of the next-generation World Wide Web. Among the technologies being developed as part of the collaboration are e-business reliability: a global trading Web (GTW) virtual catalog with real-time access to information about products and services from thousands of suppliers. The issue of security on the next-generation Internet remains a concern and an area of future research.

The advancement to the second Internet, if successful, may impact the future of the Internet in the marketing classroom. This is an area in which universities are the testers (marketers) of this new infinite technology. The marketing field is unique in this sense, as universities are the ones doing the "marketing" of the "Internet2" by testing it in their home institutions. From an educational research perspective, there is ample room for research on this emerging smarter and sleeker Internet, especially as to how it may be used in the classroom and for other educational purposes (e.g., how may the Internet2 assist in international marketing projects?).

Marketing researchers and educators may also be interested in the way the Internet2 will be adapted in lieu of the standard Internet into their classroom or department. Research questions may include: What is this new entity, and how is it going to change the way the marketing education is seen? Is this change for

18

the better? How, specifically, will the Internet2 help instructors, departments, and students? However, the biggest question for developers and users in academia is "What can academic researchers do with this infinite connection?"

"Collapsing International Boundaries"

A second gap in the existing literature, surprisingly, excludes a primary focus of the international nature of the Internet for marketing education. Siegel (1991) called for the need to globalize the introductory marketing course, and Natesean and Smith (1998) note the merits of the Internet as a tool for teaching global marketing; however, there is a need for papers that focus on the Internet in regards to its international aptitude in *all* marketing courses. As seen in the areas investigating distance learning, universities are offering a marketing education to a diverse international student population (Dacko 2001). At the same time, universities are increasing their reliance on technological innovations that enhance students' global learning experience. Ultimately, a key measure of success of such programs and technological approaches is the extent that students' learning needs are being met-wherever they may be in the world.

The reputations of marketing departments are communicated largely on the international scale, which is efficiently done via the Internet. The existing literature has published little on the International scope of the marketing department and how students, researchers, teachers, and other stakeholders are affected by online interactions. The international scope of the Internet, has been a part of studies; however, a valuable contribution would focus on the international corroboration possible to marketing researchers in academia, and even students. For example, will students conduct projects to fulfill class assignments with international team members? How does the Internet eliminate or blur the international boundary in marketing education?

Diversity Recruiter.   Many universities are spending time and money to diversify both their schools and marketing classrooms, especially to attract international students. The Internet has the power to recruit esteemed international students to marketing programs, especially at the graduate level. In a recent "Marketing Theory" seminar, an international student stated to the professor during introductions,

"I have studied your work in my home country, and I am honored to now be in your class." This student used the Internet multiple times (e.g., to locate the professor's research, information about the marketing department, and for application information). Hence, the Internet served as his recruiter, without geographic limits. An important contribution to the literature would explore how the Internet may be better used as a diversity recruiter for marketing departments, on both the student and faculty level.

"E-Ethics in Marketing Education"

Approximately 100,000 students graduate from business schools in the United States each year, entering corporate America. Ethics learned in the classroom are assumed to transfer into practice. Ethical conduct in the workplace has become increasingly important to students at leading business schools; however, "students are worried that their study programs might teach questionable values that may later contribute to mismanagement or corporate fraud." (Browning 2003 p.1) A recent commissioned study polled 1,693 students at a dozen leading business schools, and reported that ethics and values are increasingly important in the workplace (Browning 2003). However, a minimal 22 percent of the students felt their schools were doing "a lot" to prepare them to handle workplace conflicts (e.g., involving mismanagement or fraud). Furthermore, one in five business students did not feel they were receiving any ethics training (Browning 2003).

A new set of business ethics, in terms of the Internet, may be of value to the marketing student. In the marketing classroom, ethical considerations may address the use of intrusive "spamming" and online tracking of consumers in a quest for reach, frequency, and a measurable account of online surfers. Such applications, which may violate consumer privacy, may be of interest to a marketing researcher/educator and well suited with a class-based project, letting students make decisions as to which forms of online consumer research is ethical under given considerations. Considerations may include: the acquisition of e-mail lists, the content of the marketing message sent, the number of times and time of day the message is sent, and inclusion of any "spyware" or hidden tracking devices associated with web-based messaging.

A further area associated with ethics in the marketing course has to do with the use of online content as sources for original research or marketing projects. The Internet has also revolutionized many time-

honored short cuts to completing assignments. For a fee, interested surfers can download branded study aids-often in lieu of actually reading the assigned material. One-third (34%) of all online teens have downloaded online study aids (Pew Survey 2001), and 18% say they know of someone who has used the Internet even further--to cheat on a paper or test. Furthermore, a majority of teens that go online daily (60%) report emailing or IM'ing others about assignments.

The proliferation of available secondary research, images, and sources leads to an ease of the copy and paste function for class-related papers and projects, which are common in many marketing courses. For example, one may locate a SWOT analysis for Abercrombie and Fitch at http://www.free-termpapers.com (this exact paper was the free demo for the website, and actually turned in to one of the authors of this paper in an undergraduate marketing class). Thus, a research area of importance would survey/ interview marketing majors as to the extent as to which the Internet has been used with respect to plagiarism, report sharing, and unoriginal course work. The findings would indicate to marketing educators the unfortunate necessity to scan students' work through plagiarism-detecting software (e.g., http://www.turnitin.com). Furthermore, the findings would indicate the need for a re-evaluation of the university honor code in regards to curbing online-related plagiarism.

"Technology and Marketing Department Value Creation"

Ultimately, technology is strongly correlated with value creation (Mizik and Jacobson 2003). Such value creation is needed for a strong marketing department. Just as a business uses its technological capability to create a solution to meet emerging consumer needs (Mizik and Jacobson 2003), a marketing department must utilize its capability to meet the educational and research needs of the students and faculty. As value emerges through product innovations, value is likewise created through dissemination of information (Mizik and Jacobson 2003), and the Internet may facilitate such a spread of marketing-related educational knowledge

In addition to the website of a marketing department, the technology held by the department has much to do with the value of the education the marketing student acquires. As the marketing field, especially quantitative based marketing applications, often involves statistical analysis, high speed Internet

connectivity and departmental statistical licenses (e.g., SAS, SPSS) enable the student to reap the benefits

of such programs in their understanding and application of quantitative marketing techniques. At the

graduate level, access to programs such as LISREL, MLLSA, and other software with multivariate

capabilities are well suited to the MBA or doctoral student in marketing. Marketing academics may be

interested in surveying students and recent graduates as to their perceptions and the value that they place

on such technological programs, the websites and online tutorials that support them, and the extent to

which their department/college provides such accessibility and expectations of applications of such

Internet and technological tools in their marketing education.

"Student Learning and Technology"

Fundamental to the successful design and implementation of Internet-based initiatives in marketing

education, is the development of a sound theoretical understanding of how students learn with technology.

It is believed that technology and the Internet can facilitate and enhance learning. In the case of distance

classes, the Internet can even replace the traditional learning experience. Yet, reviewing existing

literature shows little efforts to corroborate such a theoretical framework of how students learn with

technology. Such a contribution would establish a foundation of effective integration of technology into

marketing education (Celsi and Wolfinbarger 2002)

International Learning. Student-learning theory should be addressed further on an international level.

The Internet is increasingly an international tool, via exercises (e.g., International net pals*)* where students

in different countries work together on analytical problem solving (Natesan and Smith et al. 1998). The

Internet may also be used as a promotional tool, via exercises, such as a class project homepage. These

online exercises may lead to international learning capabilities. Progressive marketing professors are

using various educational technology tools, simulated environments, and online resources for an

international educational experience.

The State of Internet-Based Marketing Education

We now present a discussion of the current state of the Internet in regards to marketing education.

Main concerns among marketing faculty include both how technology and the Internet *is* being used in

marketing education as well as how *should* it be used (Peterson 2002). In light of these two questions, Peterson (2002) empirically shows that there is little evidence showing the incremental contribution of instructional technology--including the Internet.

Via an analysis of sixty-one surveys given to marketing professors in 16 countries, Peterson et al. found some interesting notions concerning the current state of the Internet and marketing education. Specific findings include that: nearly 66.6% of the respondents use a form of technology while teaching marketing, (most frequently PowerPoint) and that only one respondent was involved in distance education. Combined, the findings lead the authors to corroborate the antecedents and consequences of technology use in the marketing class. These antecedents of technology use include: appearance (i.e., tech-savvy ness), perceived greater efficiency, (i.e., reduced time on course material preparation, modification, and/or delivery), perceived enhanced communication (i.e., better communication both inside and outside of the classroom), and perceived greater effectiveness (i.e., technology helps improve teaching and/or learning).

On the other hand, Peterson et al. revealed some main consequences of technology use in the marketing classroom. These consequences include: greater efficiency (i.e., better use of class time), enhances communication (i.e., is more than plain lecture), lowers student learning (i.e., bulleted points may "dumb down" the material), and uncertainty of student learning (i.e., there is little to no proof that such technologies advance learning.

Interestingly, many respondents to Peterson et al.'s (2002) survey did not see any obvious benefit from using technology in the marketing classroom (although, recall 66.6% do still incorporate it into their classrooms). And comments were given concerning negative aspects of technology in marketing education, including the risk of monotony, the technology not working, and lower attendance rates (e.g., students may skip class in lieu of downloading the notes online). Furthermore, no definitive conclusion is possible as to whether instructional technologies used in the marketing education contributes to student learning.

To supplement the faculty survey discussed above, Peterson et al. (2002) also analyzed student surveys (n=265) about their reactions to instructional technology in the classroom. Approximately 33.3% of the students reported using one or more Microsoft software applications (e.g., Excel, FrontPage) in a marketing classroom. Of those students, 25% used Blackboard in a marketing class, and only one student took a distance education course online.

After compiling the questionnaires, Peterson et al. (2002) concluded that the most beneficial technologies relate to the use of in class projection of visual aids (e.g., projecting pictures and charts from the Internet or PowerPoint). Collectively, the students imply that the classroom technologies, such as the Internet, make a course more interesting and frees up time (e.g., no time allocated for handing out material in class if it is online). The student sample also collectively implies that the classroom technologies do not increase learning. However, few students claimed negative effects of classroom technology (as opposed to the negative effects mentioned by the faculty sample).

Current uses of the Internet in marketing classrooms include web-based cases (Henson et al. 2003). Web-based cases entail using the Internet to explore relevant company and industry material, identify the problem, and analyze the findings/opportunities. Web-case studies are often used to further or refresh existing, offline case studies. When adding the Internet to traditionally offline case studies, the student becomes more active in the learning process by being both the case writer and analyzer (Henson et al. 2003). Web-based cases are being used in two courses by the first author of this paper, who notes that the Internet component has made the case study process more interactive and keeps the case information up-to-date.

A further thought in the state of the Internet and marketing education, is the possible movement towards actually teaching marketing-related technology. Recent research (e.g., Jones and Kelly 2003; McBane 2003; Williamson, Brookshire and Wright 2002) investigates the importance of teaching *applications of* marketing technology. McBane (2003) arises a central question; "is it appropriate for marketing faculty to teach technology?" (p. 1) Until recently, the general consensus among marketing

faculty has generally been that teaching marketing-related technology (e.g., sales force automation, geographic information systems, data mining) is a role for information systems faculty. However, the role is gradually opening towards marketing faculty, who may soon be expected, at some level, to teach the technology related to their own field. Demands from the business community, combined with the growth of e-commerce and Internet-based marketing applications are reasons why marketing departments may encourage teaching (or at least exposure to) marketing related technology.

Discussion

Our synthesis of the literature and subsequent gap analysis examines how increasing use of the Internet affects marketing education in seven various components. Each component influences the future of the marketing education. Further, we see how the Internet may be used to meet current and future challenges facing business education, as indicated by the gaps found in existing literature. We focus on research that has featured content specific to marketing education and the Internet, in lieu of other technological advancements (e.g.*,* video and TV in education). Such a focus provides for a solid direction to policy makers concerned with if and how to promote use of the Internet in marketing education.

It is interesting to note that the use of technology for distance learning was almost as common in 1992 as it is today. Video compression techniques began via distance learning proponents for satellite efficiency; today, this compression manifests in Internet streaming. Change in the way information is distributed (from satellite-based to the Internet), merely makes the Internet the middleman. A systematic approach to course design will help educators optimize the power of this dynamic medium in education.

Marketing educators are using the Internet to improve both their teaching effectiveness and efficiency; however, complexity and difficulty in understanding and using the Internet remains a major impediment for marketing educators, especially for the faculty who became experts in the marketing field before the proliferation of the Internet. Thus, institutional support focusing on educating faculty on the use of the

Internet in the classroom and on distance learning is crucial. Such institutional support was also found to be a key predictor of home page presence, an indicator of departmental value. Marketing departments are furthering communication with present and prospective students, potential donors, local leaders, and mass media outlets with internationally accessed websites, thus the importance of such sites is important from a value and a recruitment perspective.

We have provided a coherent synthesis and gap analysis of research on the Internet and the marketing education, in hopes to provide a basis for further research in this important topic. We call for researchers to corroborate on the future of the Internet in a marketing educational context, in order to keep this literature review up to date with (and foresee) technological advances of interest to marketing educators and students.

Theoretical advances may progress in this area as well; Diffusion of Innovations Theory may be furthered as a process for accomplishing a more formal integration of discipline-specific technologies into a marketing and business program. Likewise, the use of "technology champions" as a theoretical frame may be furthered as a means of enhancing the technology diffusion process. Ultimately, marketing educators need to establish the overall *role* technology should play (Orlikowski 1992) in todays and the marketing education of the future. Each of these is a theoretical/strategic concern that is lucrative for further studies regarding the Internet and the academic future of marketing. From the "chalkboard to cyber-course", the Internet maintains a great presence and impact on a modern marketing education.

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Table 1
Sources For the Study

Journal of Marketing Education	N=33
Marketing Education Review	N=19
The Journal of Higher Education	N=4
Technology and Learning	N=3
MIS Quarterly	N=3
British Journal of Educational Technology	N=3
Technology Teacher	N=3
Journal of Management Education	N=1
Educational Technology	N=1
Journal of Academic Librarianship	N=1
Journal of Advertising Education	N=1
Journal of Advertising Research	N=1
Journal of Organizational Behavior	N=1
Organization Science	N=1
Academy of Management Journal	N=1
Journal of Marketing	N=1
American Business Review	N=1
Journal of Consumer Research	N=1
Journal of Education for Business	N=1
Total Articles Included in Study	N=80

Table 2
Literature Components and Primary Studies

Components	Primary Studies
Active Learning	Lawson, White & Serge (1998); Everett, Siegel, & Marchant (1999); Sautter, Pratt and Shanahan (2000); Daly (2001); Gillentine (2001); Paul & Mukhopadhyay (2001)
Internet Marketing Degree Requirement	Norwood (1961); Kaynama & Keesling (2000); Mohr (2000); Benbunan-Fich, Lozada, Pirog, Prilick, & Wisenblit (2001); Mitchell & Strauss (2001); Ueltschy (2001); Wiliamson, Brookshire, & Wright (2002)
Marketing Department Websites	McBane (1997); Preston (2000); Linclon (2001)
Pedagogical Obstacles	Fraley & Vargas (1975), McCorkle & Alexander (1998); McNeily & Ranney (1998); Suter & Kopp (1998); Jackson (1990); Everett, Siegel, & Marchant (1999); Karakaya, Ainscough, & Chopoorian (2001); McCorkle, Alexander, & Reardon (2001); Williamson, Brookshire, & Wright (2002); Jones & Kelley (2003); McBane (2003)
Student Benefit and Obstacles	Divine, Wilson, & Daubek (1997); McCorkle, Reardon, Alexander, Kling, Harris & Iyer (1999); Castleberry (2001); Clarke, Flaherty, & Mottner (2001); Karakaya, Fahri, Aincough & Chopoorian (2001); Sweeney & Ingram (2001); Celsi & Wolfinbarger (2002); Ferrell & Ferrell (2002); Malhotra (2002); Peterson, Albaum, Munuera, & Cunningham (2002); McCorkle, Alexander, Reardon, & Kling (2003)
Distance Learning	Alavi, Wheeler, & Valacich (1995); Canzer (1997); Webster & Hackley (1997); Berger & Dobie (1999); Clow (1999); Kaynama & Garland (2000); Ponsurick, France, & Logar (2000); Berger & Topol (2001); Dacko (2001); Eastman & Owens Swift (2001); Hammer (2001); Smith (2001)
Future of Marketing Education	Atwong & Hugstad (1997); Siegel (1996, 2000); Natesan & Smith (1998); Jones, E., Menon, Smart, & Tomkovick (1999); Bearden, Ellen, & Netemeyer (2000); Lazer, Bill and David Frayer (2000); Bell, Deans, Ibbotson & Sinkovics (2001); Evans (2001); Haytko (2001); Young (2001); Malhotra (2003)

Figure 1
Concepts and Gaps (Areas of Future Research)

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                    ┌──────────────────────────────────┐
                    │ Marketing Education and the Internet│
                    └──────────────────────────────────┘
                                    │
        ┌───────────────────────────┐   ┌───────────────────────────────┐
        ┊   E-Ethics in Marketing*   ┊   ┊ Collapsing International Boundaries┊
        └───────────────────────────┘   └───────────────────────────────┘

   ┌────────────────────────────────────┐   ┌───────────────────────────────┐
   ┊ Technology & Marketing Department Value┊   ┊      The Infinite Internet 2   ┊
   └────────────────────────────────────┘   └───────────────────────────────┘

     ┌──────────────────────┐              ┌──────────────────────┐
     │ Departmental Websites** │              │  Future of the Internet │
     └──────────────────────┘              └──────────────────────┘

  ┌──────────────────────┐   ┌──────────────────┐   ┌──────────────────────┐
  │ Student Benefit and Obstacles │   │  Active Learning  │   │ Pedagogical Obstacles │
  └──────────────────────┘   └──────────────────┘   └──────────────────────┘

        ┌──────────────────┐                    ┌──────────────────────────┐
        │ Degree Requirement │                    │ Distance Learning Courses │
        └──────────────────┘                    └──────────────────────────┘
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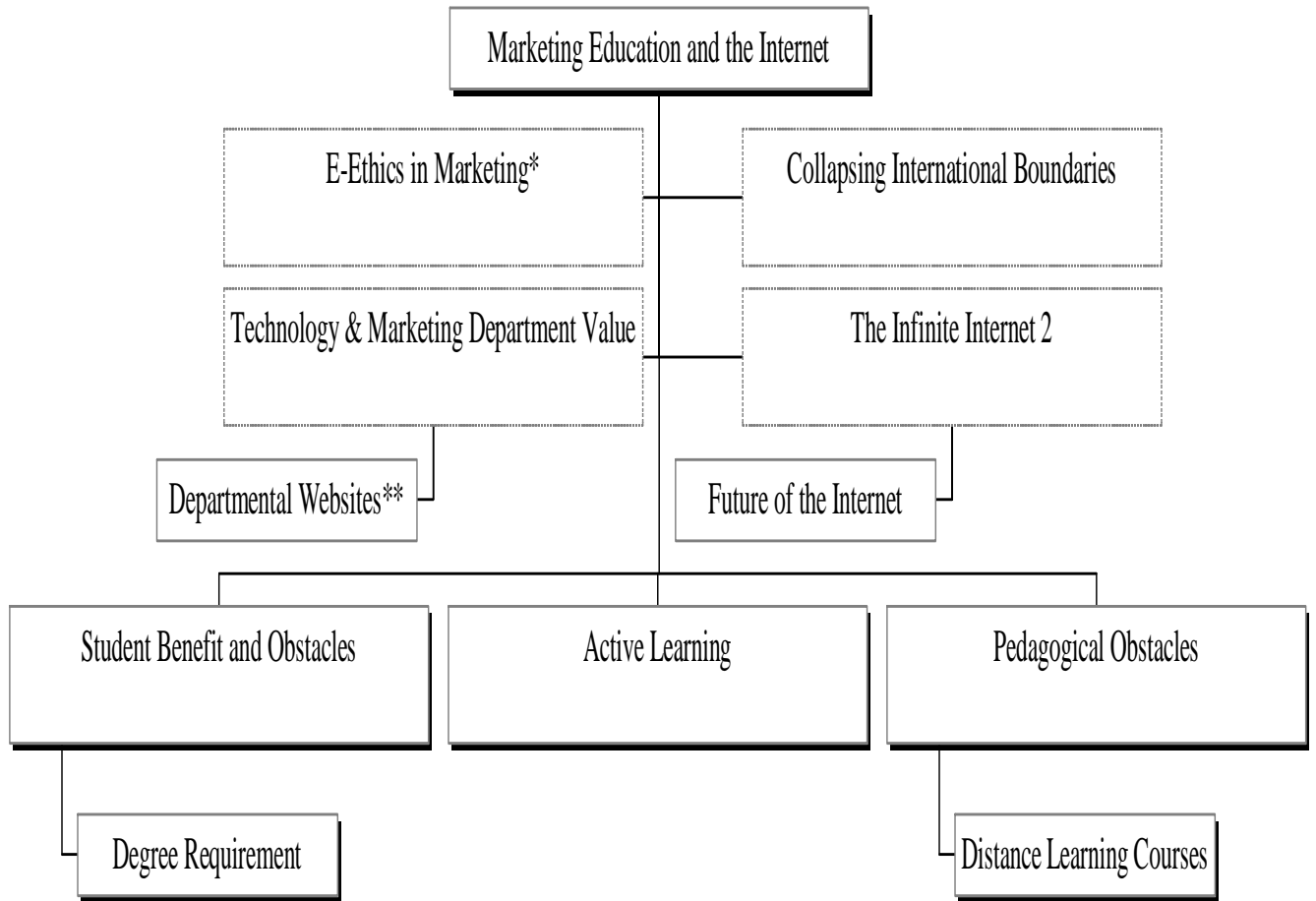
*Gaps in the literature are indicated in dashed lines.
**Existing components in the literature are indicated in lined boxes.