Faculty Use and Perceptions of the Internet in Marketing Education

Rajiv Vaidyanathan

Linda Rochford

and

Paul Johansen

University of Minnesota-Duluth

110 SBE, 10 University Drive

Duluth, MN 55812-2496

Phone: (218) 726-6817

E-mail: rvaidyan@d.umn.edu

and

Rajshree Agarwal

University of Central Florida

February 5, 1998

Faculty Use and Perceptions of the Internet in Marketing Education

Abstract

While there is an increasing amount of research on exactly *how* the Internet can be used to enhance the educational experience (e.g., Atwong and Hustad 1997, Canzer 1997), there is little research on the physical and psychological resources available to marketing faculty at Universities. This paper discusses the potential uses of the Internet for marketing education and presents results of a survey on faculty perceptions and uses of the Internet among WMEA members.

Faculty Use and Perceptions of the Internet in Marketing Education

How is the Internet and the World Wide Web (WWW) revolutionizing teaching and learning? How do we as marketing educators incorporate the Internet into the curriculum? How well do resources for students and faculty match the needs for exploiting the Internet's educational benefits?

The answers to these questions depend on the synergies between the Internet and pedagogy as well as the resources available to provide students and faculty with access to the Internet. While there is an increasing amount of research on exactly *how* the Internet can be used to enhance the educational experience (e.g., Atwong and Hustad 1997, Canzer 1997), there is little research on the physical and psychological resources available to marketing faculty at Universities. This paper discusses the potential uses of the Internet and the World Wide Web for marketing education and presents results of a survey on faculty perceptions and uses of the Internet among Western Marketing Educators Association members.

What is the World Wide Web (WWW)?

The Internet is among the most versatile tools for marketing education (Atwong and Hustad 1997). One of the fastest growing segments of the Internet is the WWW. Very simply, the WWW is a standardized, global, Internet-based information access and retrieval system. As the latest among the other widely used Internet protocols, the Web is particularly attractive for its user-friendly, point and click technology that offers graphical, audio and video capabilities. Moreover, sophisticated search engines make seeking information regarding any subject matter an easy task. With the increased accessibility and low price of connecting to the Internet, providing information on the Web is fast, relatively easy and inexpensive.

Some research has examined the use of the Internet and the WWW as a communications tool for marketing departments (McBane 1997) and even on the design

characteristics of academic marketing department sites (Lincoln, McCain and Vega 1997), but not on the attitudes and behaviors of individual marketing faculty.

Benefits of the Web for Marketing Education

Because of the versatility of the Internet, its use by marketing educators is clearly on the rise (Atwong and Hugstad 1997). There are many examples of the innovative use of the Internet (and specifically the WWW) by marketing educators (e.g., Siegel 1996). An important feature of the Web is that its structure differs inherently from other modes of printed and oral communication. A student reading a textbook, or listening to a lecture, has limited ability to follow a particular concept in any other direction than the prescribed one. Thought processes, though, often do not progress in just one channel. All knowledge is related, and there can be several avenues that one could pursue from any one point. A limitation of flat text is that the author of the document decides about the flow of context and the reader is bound by these decisions. On the other hand, a web document essentially has hyperlinks, which allow choice of related directions. These hyperlinks foster creative thought, and give the reader the ability to either continue with the thought and context of the main document, or branch into related topics. This liberates the writer, reader and thinker from the strict imposition of structure inherent in a non-web document. As an example, consider a chapter or a lecture on pricing. A well-prepared web document would contain, not only the material traditionally presented in a textbook, but several hyperlinks that allow the reader to set the pace of learning. Definitions and pointers to earlier chapters allow immediate access to prerequisite information for the person who needs to brush up on the foundations, while hyperlinks to related concepts and "higher" ideas are a click away for the more advanced student.

An additional benefit of the WWW is the access it provides students and faculty for communication and information exchange (Atwong 1997). Students can easily post questions for their instructor and communicate with other students while instructors can provide feedback and information to individual students or an entire class via e-mail or a

discussion group. Web sites also offer students access to innumerable sources of information for researching, say, case studies (Wood 1997).

Pedagogical Usage of the Net

The Web represents a powerful pedagogical tool for research, access to case studies, and for information exchange and communication. While the use of the Internet in K-12 education has been rapidly growing only relatively recently, colleges and universities have been involved with the Internet since its inception and should thus reflect a more sophisticated use of the medium in education (Kennedy 1997).

The WWW is a great starting point for research, both for students and for faculty. For finding information on an unfamiliar topic, there are a variety of information repositories that can be searched by subject or keyword. There has been a particular commitment by government agencies to make their data accessible on the Web. For consumer researchers, there are also some actual data sets that are available for free on the web (e.g., the GVU data sets available at http://www.gvu.gatech.edu/user_surveys/, or some Project 2000 data sets at http://www2000.ogsm.vanderbilt.edu/).

The interface offers a convenient way to present case studies and information to the student. Some marketing faculty are already using the web for marketing cases (e.g., http://garnet.acns.fsu.edu/~chofack/homework.html). Even as early as 1992, there was discussion in the marketing literature on the benefits of using "electronic cases" to develop students' critical thinking and problem-solving skills (Harris and Stinson 1992). The WWW also offers a convenient way to assign students homework and reading assignments. With the huge increase in the availability of magazines on the net, you can have students read articles from Time, Business Week, Fortune, etc. all using their WWW client.

One of the simplest ways of using the Web for teaching is to provide course information, homework and reading assignments on it for instant access for both current and potential students (e.g., see the collection of marketing syllabi available online at

http://nsns.com/Syllabits/mar/). In addition to providing convenience, it can shift some of the costs of providing paper copies to the student.

Communication is a significant use of the Internet. It can provide students with immediate access to faculty and staff via e-mail. With the rapidly growing rate of electronic communications, this may turn out to be an important way to make personal contact with students in an increasingly time poor society. Further, students can communicate with each other through class bulletin boards, discussion lists and chat rooms and benefit from each other's questions and comments. The benefits of communication via the WWW may be particularly significant for part-time and nontraditional students that are not on campus on a daily basis. It can also provide a means for students to communicate with one another outside of class, which can facilitate team-based projects and assignments. Instructors often find e-mail helpful to gauge class progress. It also forces students to put their questions in writing, familiarizing them with similar communication expectations in the business environment (Vasarhelyi and Graham 1997).

Current Faculty Use and Perception: Results from a Survey

To explore how the WWW is actually being utilized in marketing education, a questionnaire was developed to survey marketing educators about their perceptions and practices. The population surveyed was Western Marketing Educators Association (WMEA) members. WMEA members were selected for this survey because WMEA membership suggests a particular interest in advancing marketing education and practice, a likely group to adopt the WWW for teaching applications.

Method

The sampling frame consisted of all current members of WMEA. A current membership list was obtained from the WMEA web page. During the week of October 13, 1997, all members with e-mail addresses were sent an e-mail requesting their

participation in the survey. The survey itself was created and maintained on a web page and survey participants were asked to complete the survey on the web. All WMEA members without listed e-mail addresses were mailed a paper version of the survey. Included in the mailing was a self-addressed, stamped envelope so the survey could be returned at no cost to the respondent. The paper version was identical to the web version. For members with e-mail addresses, two reminders were sent via e-mail over the course of four weeks (every two weeks after the original message). Of the 266 members who were requested to participate in this survey electronically, 78 visited the web page and completed the survey, resulting in a response rate of 29.32%. Of the 71 WMEA members who were mailed the questionnaire, 17 completed and returned the survey for a response rate of 23.94%. Overall (combined) response rate was 28.18%. The low response rate was a surprise and is discussed in the conclusions.

Sample Characteristics

The average age of the respondents was about 49. Interestingly, the respondents tended to be male dominated (76% male versus 24% female). The sample was also skewed towards senior faculty – 51% of respondents were full professors, 30% associate professors, 8% assistant professors, 3% professors emeritus, 3% non-tenure-track faculty and 5% "other". Almost all of the respondents (93%) indicated that they taught undergraduate marketing classes (an average of 4.53 classes per year). Almost 48% of the respondents taught graduate marketing classes (an average of 1.53 per year). Of classes taught by faculty, the most common class taught by faculty was the undergraduate Principles of Marketing class (59% of respondents). Each of the other marketing classes was taught by 25% or less of the respondents.

Results

Use of E-mail in Teaching

By far the most common usage of the Internet is for e-mail. Our survey attempted to measure the extent of e-mail usage among marketing faculty. Although the most commonly reported usage of e-mail was for communicating with faculty within their school (87%, followed by faculty at other schools at 79%, and friends and relatives at 74%), almost 66% of the respondents indicated that they used e-mail regularly to communicate with students in their classes. However, when asked "How would you describe your use of electronic mail?" 80% of respondents marked the "Teaching" option (followed by 61% for "Research"). This could suggest that many of the e-mail communications between faculty (notinvolving students) are considered by respondents to fall under the "teaching" category. When asked how they used (or planned to use) e-mail in their classes, the largest percentage of respondents indicated "to provide feedback to students." In terms of the future, the largest differences between current use of e-mail and projected future use was "to provide information to the class as a whole between class periods" (42% currently use, 51% intend to use next year) and "to send assignments to the class as a whole" (23% currently use, 37% intend to use next year). It also appears that few faculty require the use of e-mail in their marketing classes. When asked to agree or disagree with the statement "Students in your marketing classes are **required** to use e-mail" the mean on the 5-point scale was 2.61 with 1 (disagree) being the modal response (almost 45% of respondents marked "1").

Use of the World Wide Web (WWW) For Teaching

One of the fastest growing Internet services today is the WWW. Its multimedia

capabilities make it an exciting tool for education. Research was by far the most widespread use of the WWW by respondents (almost 87%), followed by teaching (68%), entertainment (65%), administration (26%), publication (making publications available on the web; 11%), and student recruitment (2%). Interestingly, a majority of marketing faculty (57%) indicated that they had actually used or demonstrated the WWW in their classes. However, only 33% indicated that they had a web page set up for any of their classes. The most popular current uses of the WWW in classes were for posting the course syllabus (31%), for student research (23%), and for web-based assignments (25%). Interestingly, the survey results do empirically support the fact that web usage will be increasing in the future. For every category, the number of respondents indicating that they planned to use the web in the upcoming year was greater than the number currently using the web – to post the course syllabus (31% vs. 49%), to post course hand-outs, notes (23% vs. 40%), student research (25% vs. 32%), chat (9% vs. 21%), web-based assignments (26% vs. 42%), grade book (1% vs. 8%), aggregating student comments, ideas (8% vs. 18%), disseminating student comments, ideas (9% vs. 24%). Although overall the planned usage of the web for teaching is still low and will likely be low next year, the percentage increase in planned usage (55% across all categories) is impressive. Of all the different Internet services available, the WWW was seen as the most useful for teaching (mean=7.00 on a 9-point Not Useful-Very Useful scale), followed by e-mail (mean=6.69), listservs/mailing lists (mean=4.41), FTP (mean=4.27), Usenet newsgroups (mean=4.14), internet chat (mean=3.79), and finally gopher (mean=3.65).

Attitudes Towards Internet Services

Respondents were also asked to provide their level of agreement or disagreement with a series of statements. The rating scale was a nine-point Likert scale ranging from strongly disagree (=1) to strongly agree (=9).

Respondents as a whole were in disagreement as to whether "all business faculty should use Internet services in the classroom" (56% less than 5; 14% at the midpoint; mean=4.8). However, they strongly felt that "all business students should become knowledgeable of Internet services during the course of their degrees" (100% over 4; mean=8.32). Encouragingly, faculty seemed to think that the Internet could improve the quality of teaching. In response to the statement "faculty use of the Internet can improve the quality of their teaching," The modal response was 9.0 on the 9 point scale (83% over 4; mean=6.60). Further, they seemed to agree with the statement that "The WWW is a good pedagogical resource" (87% over 4; mean=6.56). When asked their level of agreement with the statement "Business students should be comfortable doing research using the WWW," over 98% of the respondents provided a rating of 5 or higher on the strongly disagree to strongly agree scale (mean=7.81).

Access to Resources

Obviously, for a meaningful evaluation of Internet usage to be performed, it is important to evaluate the resources available to business school faculty. We explored faculty and student access to resources by asking respondents about the computer hardware they had access to, availability of Internet services, and level of familiarity with the WWW.

In terms of computer hardware, the survey found that a majority of the faculty

(almost 92%) used an IBM compatible running Windows. Less than 5% of the faculty in the sample used Apple Macintosh computers. The implications of this for application software designers are to ensure that software targeted at business faculty run in an IBM/Windows environment. It is perhaps not surprising that we see a majority of the pedagogical tools accompanying texts (presentation software, test banks, simulations) available only for Windows or DOS environments. In terms of raw processing power, an astonishing 77% of the faculty had either Pentiums or better. About 14% had an 80486-based PC and only one respondent had less than an 80486 CPU in their computer. In summary, a vast majority of marketing faculty seem to have relatively high powered multimedia computers fully capable of taking advantage of the resources available on the Internet. Fortunately, only about 2% of the respondents reported **not** having a direct (e.g., Ethernet) connection to the Internet that allowed for high-speed Internet access. The University was the primary Internet access provider for most (92%) of the respondents.

Student access to the Internet seemed more limited overall. Sixty-three percent of the respondents indicated that over 90% of the undergraduate student had an e-mail account. This is surprising given that about 66% of the respondents said that undergraduate students did not have to pay any additional fee to have a campus e-mail account. However, faculty did not seem to think that student access to the Internet limited their ability to implement e-mail teaching applications (63% less than 3 on a 5-point scale; mean=2.29).

Apparently, many Universities offer students access to the Internet via computer labs because the respondents reported better numbers for student access to the Internet

(beyond e-mail). Although only about 46% of the respondents reported that 100% of the undergraduate student body had Internet access beyond e-mail, on the whole about 66% of respondents indicated that over 90% of the undergraduate student body had access to the Internet beyond an e-mail account.

Two items attempted to measure faculty level of comfort with the Internet. On the 9-point Likert scales, over 55% of the faculty circled a number higher than 5 when asked to indicate their agreement with the statement "I consider myself an 'Internet Surfer". When put another way and asked to indicate agreement with the statement "I feel ignorant when it comes to services available over the Internet," only about 25% of the respondents circled a number over 5 (indicating agreement) with this statement. Thus, faculty seem to consider themselves fairly comfortable with the Internet. As an interesting side note, statistically, there was a marginal difference between the web respondents and the mail respondents to these questions (p=.129, p=.079 respectively).

Discussion and Conclusions

The results of this descriptive study show that marketing faculty, in general, are currently not the most active users of Internet-based pedagogical resources. However, the findings are encouraging to the extent that faculty seem to have a generally positive view of the Internet. Also, the results of the survey indicate that faculty usage of the Internet is increasing rapidly. Marketing faculty do believe that the use of the Internet improves the quality of their teaching and they overwhelmingly feel that business students should be comfortable with and knowledgeable about Internet resources. Their attitude about the usefulness of the Internet for teaching seems overwhelmingly positive.

Of all the Internet services, the two that faculty seem to consider most valuable for teaching are the WWW and e-mail. While we don't seem to be at the level of "universal" internet or e-mail access, lack of student access to the Internet did not seem to be a major factor inhibiting faculty efforts to integrate the Internet into the marketing classroom. Faculty certainly seem to have access to state-of-the-art computing resources.

Some substantive implications of the results of this survey are that marketing faculty perceive the Internet to be an important pedagogical resource and actually intend to make greater use of the Internet in their teaching process. This implies that the different individuals involved in educational process need to adapt their products and services to meet this behavioral change or they will be left behind. There are several such groups of people that need to heed the results of this survey. One can already see how textbook manufacturers are gearing up by offering interactive cases, presentation CD-ROMs, dynamic web sites, etc. in support of their marketing textbooks. As a faculty, we need to commit ourselves to educating ourselves about the opportunities that the Internet offers in enhancing the educational experiences for our students. Students themselves need to realize the importance of this mode of education and demand access to computing resources. University administrators need to allocate resources to develop the use of the Internet and the access to the Internet for both students and faculty.

The biggest surprise we faced when conducting this research was the overall low response rate to our call for survey respondents. We felt that making the survey available over the web would make it easy for respondents to quickly view and complete the survey. We felt it would also make it less likely for the survey to get lost in the shuffle of papers. Acknowledging the fact that having only a web-based survey would skew the

results towards "Internet-savvy" respondents, we also sent out a mail version of the survey to WMEA members without e-mail addresses. Our response rate was extremely low for both versions. The topic of the survey was of clear relevance to the sample. We also received no complaints about the ability of faculty to access and complete the web survey. The data collection period was also timed so that it did not clearly fall during a "break" period. Sufficient time was provided for faculty to access the page and complete the survey. The results reported here are limited to the extent that they are based on a small sample.

Given the rapid growth of the Internet and computer technology in general, it is inevitable that these resources will play a greater part in the marketing education process. Surveys on faculty use and perceptions of Internet services will be more useful if they are tracked over time. Trends in usage of and attitudes towards the Internet will provide useful information to creators of pedagogical resources on how best to present material in the future. It is important for such trends to be tracked over the next few years, as the availability of electronic resources becomes more widespread. This study is just the first stage in that continuing process.

References

Atwong, Catherine T. (1997), "The Theory and Practice of Web Teaching," in *Proceedings of the 1997 Western Marketing Educators' Association Conference Proceedings*, George E. Belch and Linda J. Morris, Eds., 5.

Atwong, Catherine T. and Paul S. Hugstad (1997), "Internet Technology and the Future of Marketing Education," *Journal of Marketing Education*, 19 (Fall), 44-55.

Canzer, Brahm (1997), "Marketing Education on the Internet: A World Wide Web Based Introductory Marketing Course Design for the Virtual-U Project in Distance Education at Simon Fraser University," *Journal of Marketing Education*, 19 (Fall), 55-65.

Harris, William D. and John E. Stinson (1992),"Bring Today's Business Environment Into the Classroom Through The Use of Electronic Case Studies," in *Proceedings of the 1992 AMA Summer Educators' Conference: Enhancing Knowledge Development in Marketing, Vol. 3*, R.P. Leone and V. Kumar (eds.), Chicago, IL: American Marketing Association, 368-374.

Kennedy, Shirley Duglin (1997),"Creative Educational Use of the Internet," *Information Today*, 14 (October), 46-47.

Lincoln, Douglas J., Gary McCain, and Manrique Vega (1997), "Marketing Educator Website Adoption: Where Are We?" in *Proceedings of the 1997 Western Marketing Educators' Association Conference Proceedings*, George E. Belch and Linda J. Morris, Eds., 6-9.

McBane, Donald (1997), "Marketing Departments on the World Wide Web: State of the Art and Recommendations," *Journal of Marketing Education*, 19 (Spring), 14-25.

Siegel, Carolyn F. (1996), "Using Computer Networks (Intranet and Internet) to Enhance Your Students' Marketing Skills," *Journal of Marketing Education*, 18 (Fall), 14-24.

Vasarhelyi and Graham (1997), "Cybersmart: Education and the Internet," *Management Accounting*, August, 32-36.

Wood, Marian Burk (1997), "Use the Web to Research Case Studies," *Marketing News*, 13 (August 4), 7, 19.