The future of internet based training in the lodging industry.

By: Bo A. Hu, Douglas C. Nelson, Carl G. Braunlich & Yu-Chin Hsieh


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Abstract:

It has become clear in recent years that the Internet has dramatically affected all aspects of hotel operations. Although the Internet has been primarily used as a medium for marketing and communications, it has the potential to reshape the way in which many other vital operations are performed, such as the distribution of training programs. The proliferation and popularity of the Internet now makes it possible to separate trainees and trainers by both time and location. This study examines expert's predictions of using Internet based training and identifies its benefits, drawbacks and barriers to entry in the lodging industry. The findings of the study have direct implications for hotel operators, training professionals, and technology vendors for their future training plan, budget, technology inputs, and product development.

Keywords: internet based training | web | training programs | technology | lodging industry | hospitality industry

Article:

INTRODUCTION

The availability of the Internet provides the lodging industry with an important business opportunity to gain a competitive edge. While the World Wide Web, or simply “the Web,” an information-sharing model built on top of the Internet, has a proven track record in marketing, communication and reservations (Connolly, Olsen, & Moore, 1998; Gatty & Blalock, 1998; Higley, 1998; Murphy, Forrest, Wotring, & Brymer, 1996), success in some areas, such as training, has been limited. A recent survey of lodging managers found that using the Internet as a training tool was ranked the lowest among all its uses (Van Hoof & Combrink, 1998). However, with the increasing technological literacy and accessibility to the Internet by all levels of employees, Internet based training (IBT) might be an effective training alternative. For hotel operators, it also holds the promise of lowering the training costs and leveraging their investment in technology.
In recent years, employee training budgets have increased, as more and more hotels recognize the importance of training in improving the quality of service and reducing the rate of turnover. In response to the greater emphasis on training, some companies have offered different types of training programs. Technology-based delivery of training programs is becoming popular, although traditional training media of seminars and workshops still have their place. Technology-based training uses mainframe computers, floppy discs, multimedia CD-ROMs, and interactive video-disks. Most recently, Internet and Intranet have become preferred delivery options by individuals and companies. The purpose of this research is to anticipate and validate future trends of using the Internet as a training medium in the lodging industry, based on the opinions of hotel professionals, training specialists, and academics. The results of this study will provide hotels and training companies a valuable tool in planning and budgeting for future training needs.

LITERATURE REVIEW

Corporate Internet Based Training

Internet based training is defined as instruction that is delivered over the Internet or over a company’s intranet. Internet based training is spreading in the business world. According to International Data Corporation (IDC), a leading technology research company, the worldwide corporate training revenue will exceed $23 billion by 2004, a dramatic increase from the less than $2 billion market at the end of 1999 (IDC, 2002). A significant shift in content demand will occur. Instead of information technology (IT) content, business skills training will dominate the market, accounting for over 54% of the total revenue (IDC, 2002).

The Internet and other collaborative computer-based technologies have helped some companies train their employees in more cost-effective and innovative ways than ever before. The lodging industry is one of the many industries that can benefit from using IBT as a cheap and convenient alternative to on-site training (Van Hoof, Verbeeten, & Combrink, 2001). Because of the wide dispersion of employees and properties, many of the large hospitality companies are well-suited to adopt this new training tool. The availability and accessibility of computers and Internet access provide the lodging industry the necessary technological infrastructure to deliver IBT. A recent survey showed almost all respondents (94.7%) indicated that Internet access was available at their properties (Van Hoof et al., 2001). However, it was also revealed that only 12% of respondents indicated their properties presently offered IBT to their employees (Van Hoof et al., 2001), thus revealing that IBT is not yet common in the lodging industry.

Currently there are a few organizations that offer fully online and interactive training programs for the lodging industry. The leading player is the Educational Institute Hospitality Network, an Internet-based training and development system, available to hotel companies and properties on a subscription basis. Another major player in the hospitality IBT sector is HotelTraining.com, the first reservation sales training program specifically designed for delivery via the Web. The Sales
Training for Agents in Reservations (STAR) Workshop offered by HotelTraining.com, teaches agents to sell a reservation through an easy and enjoyable interactive text and audio format.

Advantages of Internet Based Training

Although IBT is still a relatively new training delivery method, it has already demonstrated some distinct advantages over traditional classroom training and over disk-based and computer-based training (CBT). The benefits can be summarized into two categories: tactical and strategic advantages (Driscoll, 1998). Tactical benefits include cost reduction, flexibility, equal learning effects, and ease of updating.

Cost reduction. Design and delivery are the main categories of investment in building and launching a training initiative. Design costs consist of time and travel to assess learner’s needs, staff time of instructional designers and programmers, and purchases of software, hardware, and other design and development tools. Delivery costs include producing and distributing materials, transporting learners and instructors for classroom training, and gathering and processing training results (Boisvert, 2000). The design costs for IBT are higher than those for traditional classroom training. However, the availability of ready-made programs, whose features can be easily replicated, has reduced the cost. When the costs are amortized over the life of the training program or the total number of trainees, IBT is significantly less expensive than traditional classroom training. The primary cost savings of IBT are in the delivery cost. With IBT, the trainees can learn from their offices or homes; travel expenses, and the rental costs of training facilities can be decreased or eliminated. In addition, IBT systems can perform or simplify many time-consuming administrative chores, such as distributing course materials and registering students for classes.

Flexibility. Many employees have difficulty fitting traditional classroom training into their schedules. With online training programs available 24 hours a day, 7 days a week, learners can access training materials at their convenience. IBT allows learners to proceed through a course at their own pace. Learners can repeat lessons they find particularly interesting and skip those they have already mastered or do not need. With self-directed IBT, learners do not have to wait for classes to form and can learn what they need, whenever they need it.

Equal learning effects. Previous studies show “no-significant-difference phenomenon” among different training delivery mechanisms, which means that learning in the classroom, by correspondence, through videotapes, through CBT, or by IBT are equally effective (Baer, 1998; Ives & Jarvenpaa, 1996; Swope, 1994). By comparing classroom training with IBT, Moore and Kearsly (1996) concluded that the quality of a course is not a consequence of the delivery methods, but how well it is designed, delivered, and conducted. Meanwhile, some researchers found online training to be superior to training delivered via other media due to its collaborative learning setting and the immediacy of feedback (Ellis, 2002; Kruse, 1999; Kubala, 1998; Schutte, 1997).
Ease of updating. IBT allows for the fastest, easiest, and, in most cases, least expensive updating. The instructor or training team simply makes the changes and uploads the new files on the server. Courses can be designed to access designated current information, such as the latest new product specifications, from any other server worldwide for on-the-fly update whenever anyone accesses the program (Hall, 1997).

In addition to the tactical benefits, IBT has several strategic benefits for the lodging industry, which deals with shorter time horizons for product and service development and enhances a company’s ability to compete in a global marketplace (Driscoll, 1998). The strategic benefits result from changing workforce, flattened organization structures, distribution systems, and training documentation.

Changing workforce. For the companies with worldwide offices, providing traditional training seminars in many countries can be expensive. IBT makes it possible to provide timely training to the global workforce, while simultaneously minimizing expenses. In addition, a growing number of employees, commonly referred to as telecommuters and flexible workers, are working at home or setting their own schedules. IBT provides a training option that meets the needs of people working in virtual offices. Furthermore, the increasing reliance upon contingency workers, hired to help a company during peak seasons, is another reason to use IBT. IBT courses offer an inexpensive means of teaching new hires without renting a facility or arranging a class.

Flattened organizational structures. Companies that experience downsizing or adopt flattened management structures can also benefit from IBT. The flattened organizations have fewer managers, and the remaining managers have less time for mentoring and providing on-the-job training for their subordinates. IBT bridges the gap between managers and their subordinates.

Distribution systems. Lodging properties, by their very nature, are geographically dispersed. Larger companies have properties and human resources operating across the country or even the world. Human resource development in this setting is expensive and difficult to manage. The centralized nature of IBT content delivery may be an effective solution to this strategic dilemma. For lodging companies that offer franchise programs, an IBT-supported development program may add value to the franchise package.

Training documentation. One of the primary advantages of IBT over traditional training program is the automatic monitoring and documentation of training progress. As learners with individual passwords log on, their completion of assignments and their progress toward reaching required levels of accomplishment can be tracked. This information can be used by management in performance evaluations, compensation, and promotion decisions.

Challenges of Internet Based Training
Despite its many advantages, IBT is not an educational panacea. It has costs, requires compromises, and poses problems. It is important to understand the disadvantages of using IBT, as they may not be as obvious as the benefits.

Computer literacy. Many IBT courses are “dead on arrival.” That is, learners never get started because they do not possess enough computer knowledge to access the course, such as the download and installation of the required plug-ins and logging in through the company’s intranet firewall. Even minor technical glitches, such as long download times and temporarily unavailable pages, can disrupt the learning process. To resolve this problem, lodging companies can require the IBT designers to minimize the technical requirements and decide the necessary level of computer expertise. It is also important to introduce the technical skills required prior to starting IBT.

More money and time. A clear disadvantage of IBT is the substantial technical infrastructure required to run programs. Apart from developing educationally effective training programs, certain computer systems requirements, network capacity, and network access are necessary (Hall, 1997). For companies with limited computer facilities, the initial cost can be high. Learners also found IBT courses take 20% to 40% more time and effort than traditional classroom courses (Kroder, Suess, & Sachs, 1998). Online discussions, brainstorming sessions, and problem-solving activities purportedly take longer than face-to-face communications. Sometimes misinterpretations and ambiguities can be caused by the lack of personal contact.

Limited bandwidth. Limited bandwidth means slower performance for sound, video, and extensive graphics, which are a part of many IBT programs. These restrictions can result in long waits for download. Some IT managers worry that the use of some web technologies, such as plug-ins or JavaScript, may exhaust the company’s network bandwidth, not leaving enough for other critical applications (Becker, 2000). One option for managing current bandwidth problems, particularly due to the use of plug-ins, is to use CD as video backups. By putting the video portion of IBT programs on CD-ROM for distribution to learners and keep the software on the server, bandwidth will not be the only option to be counted on (Boisvert, 2000).

Fear of losing human contact. There is a widespread belief that as training moves towards more computer-based, a glowing terminal will replace a friendly face (Hall, 1997). Decreasing instructor-led training makes some trainees uneasy (Sinclair, Sinclair, & Lansing, 2001). Some instructional designers also fear that learners, lacking face-to-face contact with the instructor and fellow learners, may fail to develop social skills required for their jobs.

Soft on soft skills. It is argued that IBT should not be used for teaching soft skills, such as team leadership, dealing with difficult people, and giving effective feedback. Such skills require making subtle judgments and being sensitive to nuances of emotion. It has been claimed that only a physically present instructor is capable of teaching employees skills such as judgments and sensitivity (Driscoll, 1998).
Less stimulations and supports. Some employees view traditional training as a personal reward, which offers them an opportunity to travel and meet new people at the company’s expense. However, IBT offers no such vacation. It is important to publicize IBT as the “Next Big Thing” or a reward for hard work and make those taking the courses feel special. Monetary rewards or career advancement could be used as incentives to encourage IBT participation.

Internet Based Training Options

Based on the different levels of IBT incorporation, as well as the instructional strategies in a training program, Internet based training can function in three broad models. They are complete IBT, IBT-supported training, and IBT-based training.

Complete IBT. This model is also known as “distance education,” in which all instruction and learning take place via the Internet, through asynchronous or synchronous delivery. In an asynchronous program, the learners and the instructor log on to the Internet at their convenience to brainstorm ideas on the online bulletin board, analyze case studies, and solve their assignment problems. Participants do not have to be online at the same time. Synchronous IBT is the most technically sophisticated IBT application, in which the learners and the instructor are online simultaneously and learners participate in a live, instructor-led class. Synchronous training tools, including whiteboards, shared applications, videoconferencing, audio-conferencing, and chat rooms, are necessary to facilitate the concurrence of training (Driscoll, 1998).

IBT-supported training. Another model that is possible with IBT programs is a hybrid of the distance education model and the traditional lecture-based training program. While learners complete their reading and assessment exercises on the Internet, topic coverage and learning reinforcement are done during lecture periods. This model is particularly effective when the training topics cannot be effectively delivered via IBT.

IBT-based training. For situations in which learners do not have access to the Internet, a third model of IBT is applicable. This model employs lecture-based training in which the trainer uses the IBT content to lead the training session and the trainer is only one accessing the IBT program. Although this model does not provide online assessment and tracking of training, many advantages of IBT remain, such as centralized training content, easy revision, and efficiency of resources dedicated to training program development.

Despite the potential exponential growth of Internet based training in the lodging industry, little research has been conducted on its actual and potential applications (Van Hoof et al., 2001). This study makes predictions concerning the use of the Internet as a training medium for the lodging industry. The conclusions of this study were based on integrative ideas from hotel professionals, training specialists and academics. Specifically, the benefits, drawbacks, and constraints of IBT and its current and future uses were examined.

METHODOLOGY
This study employed a modified version of the Delphi technique—a method for structuring a group communication process without direct individual contact and for reaching a consensus after refining the group opinions (Kim & Olsen, 1993; Linstone & Turoff, 1975; Sackman, 1974). The Delphi method is useful for reducing peer pressure for conformity and the influence of dominant personalities, collecting opinions from a group of geographically isolated experts, reaching consensus by forcing the group to logically consider the problem, and using anonymous controlled-feedback mechanisms which lead to more candid responses (Lloyd, LaLopa, & Braunlich, 2000; Sackman, 1974). Since it is not practical or possible to use model-based statistical methods to develop an in-depth understanding of expert’s attitudes towards IBT and predict its development, the Delphi technique, which enables some form of human judgmental input to anticipate and validate future trends (Rowe & Wright, 1999, 2000), serves the purpose of this study. One of the disadvantages of the Delphi Technique is that it may take several weeks or months to complete and tends to be administratively complex (Preble, 1983). Because the Delphi method requires several rounds of questionnaires, the researcher must efficiently collect, analyze, and mail the new questionnaires in a timely manner in order to maintain a high rate of interest and participation among the respondents (Preble, 1983). However, this research used an online survey, which reduced the time needed for data collection. Once a list of experts had been compiled, e-mails were sent to prospective participants to explain the purpose of the study and provide links to the survey website.

The Delphi procedure customarily involves two steps-assembling an expert panel and conducting surveys for consultation and provision of feedback (Kim & Olsen, 1993; Masser & Foley, 1987). A set of criteria (Table 1) was established by which to select panel members not only experienced and knowledgeable of the training programs in the lodging industry, but also having a sound understanding of IBT. Initially, after an extensive review of trade and academic journals, a thorough investigation of lodging training programs, and several rounds of peer referrals, 45 professionals were invited to the study through emails and phone calls. The experts were from four major fields: twelve human resources managers in charge of hotel training, ten lodging training consultants from training companies and associations, ten academics specializing in hotel training, and thirteen editors of leading lodging trade journals. They were advised of the selection criteria and asked to check their qualifications. Of the 45, 16 responded that they met the criteria and agreed to participate. Each major field had four expert participants.

**TABLE 1. Ten Criteria of Expert Selection**

1. 10 years of research/publication history in hotel industry human resource development
2. 5 years management experience in a hotel training department
3. 5 years management experience with a hotel training vendor
4. Having completed training programs for a minimum of five hotel properties of over 250 rooms each, either during pre or post opening
5. 5 years management experience in developing the Internet training programs of any type
6. 5 years of experience in developing the Internet training programs of any type
7. 10 years of research/publication history in computer based training development
8. 5 years of experience in business training using web supported materials
9. 5 years experience in managing distance education programs
10. Having made at least one presentation on hotel training at a national conference in the past five years

A website was set up for two rounds of surveys. In the first round, an e-mail explaining the study objectives and providing the links to the survey was sent to the participants. The panelists were asked five general questions of IBT in the lodging industry: (1) What are the benefits of using the Web to conduct training? (2) What are the drawbacks of using the Web to conduct training? (3) What are the constraints that act as barriers to the success of using the Web to conduct training? (4) How does the lodging industry currently use the Web as a training medium? (5) In the future, how do you think the lodging industry will utilize the Web for training? Open-ended questions were used in the first round of the survey to collect expert’s opinions with regard to IBT. Their responses were submitted to the researchers immediately via the Internet.

The first round survey generated a total of eighty-three responses, which were coded for further inspection. After several rounds of consolidations, seventeen duplicate or similar items were eliminated, which resulted a structured questionnaire with sixty-six items under the five questions as listed in Table 2 to 7. Each item was evaluated based on a seven-point Likert scale ranging from “strongly agree” (7) to “strongly disagree” (1). Emails were again sent to the panel members with the link to the new survey website. In the second round, three participants withdrew from the study and one was added, resulting in fourteen respondents: three hotel human resources managers, two training consultants, five academics, and four hospitality journal editors.

DATA ANALYSIS AND RESULTS

The data from the second round survey were analyzed in two stages. In the first stage, univariate analysis of variance (ANOVA) was conducted on each item, aiming to detect whether the expert’s work fields of academy, publishing, training companies, and hotels have an effect on their views of IBT. GLM procedure was used because of the unbalanced cell frequency. The results revealed that of the 66 items, three items were found to be significantly different, indicating the respondent’s work fields might have an influence on their opinions about IBT in the lodging industry. Post hoc multiple-range tests of Student-Newman-Keuls were further conducted to examine how panelists’ opinions differ on these three items due to their different work field. The results of ANOVA and post hoc tests of three items were shown in Table 2.
The experts from academics, training companies and trade journals tended to view top management as a barrier to develop IBT in terms of financial and human resource support, while the three hotel panelists— all holding managerial positions—had a lower agreement level. This highlights a disconnection between those researching and providing training and those purchasing it. In addition, the responses for two other items in the current utility of IBT in the lodging industry were found to be significantly different. The panel members from training companies moderately disagreed with the others about IBT’s current application in yield management. The two panelists might not realize the existence of related training programs offered by other training companies or designed and delivered by the training teams in hotels. It would appear that those using the technology feel a lower popularity of IBT than the outsiders. When being asked about the current use of the Web for training in the lodging industry, the experts from academics and trade journals rated IBT’s popularity lower than those from training companies and the industry, indicating another disconnection between those who are with the greatest stake in the use of IBT and those who are on the outside looking at it.

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The second stage of data analysis aims to examine the expert’s consensus opinions of IBT in the lodging industry. Due to the potential biases caused by the panelist’s different work fields, the three items discussed above were not included. The means, standard deviations (SD), and coefficient of variations were computed for the sixty-three items segregated on the five general questions from the first survey. The coefficient of variation is a measure used to compare the dispersion in groups of scores, indicating the consensus among the panelists for a particular item—the lower the coefficient of variation, the greater the similarity of responses to each individual item (Lloyd et al., 2000; Vogt, 1993).

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Table 3 ranked seventeen benefits of using IBT in the lodging industry. All the items had a coefficient of variation percentage below 50, indicating consensus among panel members on each benefit. The five top-ranked benefits are consistent with the advantages of using IBT in the general businesses, which are: (1) distributing consistent information, (2) learning at a convenient time, (3) learning in a different location, (4) proceeding at each trainee’s own pace, and (5) allowing trainers to track trainee’s performance in a timely manner.

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The results of the survey of drawbacks of Internet based training were shown in Table 4. The experts also showed a consensus on fourteen disadvantages of using IBT in the lodging industry. The top five drawbacks identified by the experts are: (1) higher requirement of trainee’s self-motivation, (2) confidentiality and privacy issues, (3) longer time in development, (4) lack of bandwidth and technological infrastructure, and (5) requiring computer use training to trainees.
As indicated in Table 5, all but one of the constraints of using Internet based training had a coefficient of variation below 50 percent, indicating a consensus among panel members with regard to most items listed. The different level of the end-user's technology facilities and the lack of high-speed Internet access were the most important constraints when considering adoption of Internet based training in the lodging industry. The top two barriers were followed by lack of visual and audio quality caused by low bandwidth and lack of understanding of IBT’s dynamics. In addition, the experts also indicated that the initial cost of computer equipment and lack of space to place training computers in most mid-market, economy and budget hotels were constraints.

Except for conducting strategic planning training, the panel members had consensus on eight current applications of Internet based training in the lodging industry. As listed in Table 6, the first five applications were: (1) industry required certifications, (2) sanitation training, (3) distance learning degree, (4) line-level skill training, and (5) occupational safety and health administration (OSHA) training.

Table 7 shows that the experts were in agreement on nine potential uses of Internet based training in the lodging industry in the future. Internet virtual synchronous training programs that link trainers and trainees in real time via Web-conferencing was predicted to offer the most potential. Online simulation trainings for both managers and frontline staffs might also be quite popular in the near future. Experts also predicted IBT would be used for new employee orientations and for retraining current staff.

As one of the first attempts to examine the applications of Internet based training in the lodging sector, this study investigated its benefits, drawbacks, barriers, and its current and future potential usage in the industry. The Delphi method allows the experts in this field to list all possible items under each category, which was then used to generate a questionnaire to examine the collective opinions on IBT.

The experts listed seventeen benefits of using IBT in the lodging industry and had broad consensus on most of them. The most highly rated benefits include distribution of consistent information, learning at a convenient time, location, and at the trainee’s own paces, allowing trainers and trainees to track the performance, immediate feedback, and updated training information. However, the experts had less unanimity on IBT’s ability to increase inter-activity among the trainers and improve learning retentions, indicating that the interactive feature of IBT requires further development before it yields its full potential.
As for the drawbacks of Internet based training, the experts believed both trainees and trainers need to be more self-motivated while involving in training via the Web. The lodging companies should make efforts to motivate employees to use IBT to its full extent, which could be achieved by improving the quality and variety of the IBT programs and including the accomplishment of an IBT training program as a promotion or compensation criterion. In addition, some existent technical issues may lead to disadvantages of IBT, such as lack of bandwidth and technological infrastructure, inability of using video, and confidentiality and privacy issues. Long time required to develop the program, computer knowledge of the trainees, potential distractions of surfing the Web were also regarded as possible drawbacks that discourage the hospitality businesses to use Internet based training to replace their current training media of CD-ROM or on site training.

Most of the factors that impede Internet based training’s usage in the lodging industry centered on costs (such as initial equipments and outsourcing), lack of technological infrastructures (such as end-user’s technology facilities, high speed internet access, low bandwidth, and computer rooms), and lack of manpower to maintain the system. Other barriers include lodging companies’ resistance to change and their ignorance of the dynamics and benefits of IBT, indicating that demonstration and promotion of the IBT programs are essential in popularizing this cutting edge delivery model. In addition, all groups, except the managers, viewed hotel’s top management as a barrier to the use of IBT. The personal involvement with the previously mentioned drawbacks may account for some perceived resistance of managers to use IBT as noted by the other groups.

Even though the experts indicated the limitation of IBT on mechanical skill trainings, they did acknowledge the current use of IBT in earning certificates and degrees. This is consistent with the finding of Van Hoof, Verbeeten and Combrink (2001) that Internet based training was most useful in pursuing certificates and degrees. In fact, IBT has been used for delivering training in such topics as sanitation, occupational safety, and OSHA training, company history, and product knowledge.

In the near future, the experts predicted that synchronous training programs linking the trainer and the trainee in real time will be most popular. More and more simulation IBT programs will be used to train line-level staff, supervisors, and managers. It is expected that traditional classroom orientations, and trainer training will be replaced by IBT.

SUMMARY

It is not a matter of “if” IBT programs will be used in the lodging industry; it is rather a matter of “when” and “by whom.” Even at this stage of the game, a few progressive lodging franchisors are employing IBT as a value added strategy to their flags. Many more lodging operators are struggling with the complexity and recurrent costs of Web design as it may apply to training programs. Off-the-shelf software products that can be used for the complex training requirements of the lodging industry are still in their infancy.
However, as usage of Internet increases by the general public, which includes management and staff employed in the lodging industry, and as bandwidth becomes more available, the stage will be set for wider use of IBT programs in corporate training. It appears that the lodging industry, with its geographically-dispersed product and constant need for training, is an industry that could take full advantage of IBT programs.

As Internet based training is still at its early stage in the lodging industry, it is recommended that the online training industry focuses on promoting its accessibility, quality and cost-effectiveness. For hotels interested in switching to Internet based training, a realistic assessment of costs and benefits needs to be conducted. In addition, the online workshop’s credibility and effectiveness should be evaluated and some basic criteria, such as focus and objectivity, should be met.

REFERENCES


