

Managing Education Programs in the Age of Information: Transformation to the Conceptual Age

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Abstract: Although this forewarning was intended primarily for a business audience, the message rings true for all kinds of firms, including educational institutions. Information technology is no longer solely in the domain of scientists and technologists. The increasing availability of information technology and the ubiquity of the Internet are shaping educational institutions and the way in which education programs are developed, marketed, instructed, delivered, serviced, and evaluated. In short, the Age of Information has a growing and deeply profound impact on the way in which Director of Education and Deans manage education programs. This paper will apply the evolving role of the chief academic, the emerging paradigm as well as recommend some strategies for becoming a “wired” Director of Education.

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1. Introduction

Now more than ever, students have expanding options when selecting education programs and instructional delivery methods. With shrinking geographic boundaries, learners have more options when choosing education programs. Distance learning institutions now not only have to compete with traditional resident institutions and established distance learning firms, but also distance learning programs launched by traditional campus-based institutions, and a growing number of business and educational institution partnerships, consortiums, and training firms. Furthermore, the ubiquity of the personal computer has moved learning into the house and office (Desouza, 2003). Distance learners can now choose different delivery options, including such methods as correspondence, CD-ROM, video, teleconferencing, and synchronous and asynchronous web-based education. For the Director of Education, rising to these challenges requires a clear understanding of the expectations and needs of the Age of Information learner (Dyba et al., 2005).

The traditional role of the Director of Education in program development involved managing a new curriculum development project once the advisory group, industry experts, or market research identified a new program area. However, “Internet time” has changed program development and consequently the Director of Education’s role. The new economy has given rise to newly defined occupations which demand a whole new set of job skills. The question then becomes, not which new programs should we suggest, but rather, how do we best prepare students for these new positions for which no curricula exists? This shift will require the Director of Education to

participate in the market research stage of program development. The pedagogical expertise of the Director of Education can assist in market research by facilitating needs assessments, identifying competencies and outcomes, and evaluating the competitiveness of similar programs of other providers (Greespan, 2004). In the Age of Information, the accelerated rate of innovation and change has shortened the “shelf life” of degrees and knowledge. This not only spells the demand for more frequent program review and a shortened revision cycle, but also increased opportunities. Ask yourself—does this new program need to be a degree program when a certificate program can provide the requisite skills set and meet the market demands for trained professionals in a shorter period of time?

2. Material and Methods

Just as the Age of Information has shaped program development, course development has been affected as well. In *Growing Up Digital* (1998), Don Tapscott identified eight aspects of interactive learning. Educating the “Net generation,” or even early technology adopters, requires some new strategies in addition to the tried and true learning principles (Coleman et al., 2005). These changes include the need for “just-in-time” content. Today’s learners have immediate access to information and often expect just-in-time access to learning as well. For course development, this introduces a need for small, accessible, and multimodality chunks of learning engagements and access to peers and faculty. There needs to be a shift from linear, instructional, teacher-centered, one size fits all course designs to hypermedia, constructivist, learner-centered, and

customizable course designs. The digital age has also presented Director of Educations with numerous productivity tools to assist with course development (Gross et al., 2002). These include hardware (e.g. scanners, high-speed printers, digital cameras, and servers) and software (e.g., desktop publishing applications, authoring systems, and file transfer protocol software) solutions that can hasten the course development process and enhance the quality of the presentation of course materials. New production tools and delivery mechanisms have also affected the make-up of the course development team (Lumb, 2007). In addition to managers of programs, editors, desktop publishers, instructional designers, course developers, instructors, and subject matter experts, the Age of Information course development team needs individuals with technical expertise. If the courses will be presented online or use web enhancements such as applying boards, chat, or whiteboards, a web developer should be part of the course development team (Reifer, 2004). If the course involves interfacing with a student database or uses specific software, an information technology professional should also be engaged in the project (Meyer, 2006).

Program Delivery

Program delivery is an area of distance education administration that has seen the most development and innovation and is the one that should be approached with the highest level of caution. It is imperative that savvy Director of Educations and Deans stay current on developments in delivering distance learning programs. There are many options for delivering distance education and additional new entrants emerge daily (Wang, 2007). The ability to discriminate between the functionality of each delivery options is critical. For institutions exploring their first or even next program delivery vehicle, selecting the appropriate delivery medium is the most crucial step and one that should not be rushed. It is critical to stay focused on the learning objectives and desired outcomes and avoid becoming enamored with the “glitz and glitter” of a polished interface without fully understanding the capabilities and limitations. Another element of growing importance is media selection (Wang, 2007). There are many examples of institutions that were early adopters of web-based technology that did not critically select appropriate instructional media. Even technophile Net Generation learners are not interested in long-term, paperless, and totally on-screen learning. Audio, streaming video, and animation can all enhance a learning engagement, but only if it supports the learning objectives. The task of the Director of Education in the Age of Information is to select an appropriate mix of instructional media that optimally support the stated learning objectives. Delivering technology enhanced distance learning

also presents Director of Educations with new issues to consider such as technical support, student orientation, faculty training, and cost and ease of retooling the delivery process. It is imperative for an Director of Education to address and monitor the efficacy of each of these elements (Meyer, 2006).

3. Results

There are many different methods to deliver distance education programs. These methods range from low-tech paper-based correspondence to the state of the art blending of multiple technologies such as the Internet, streaming video, and live video-conferencing. Some require a large investment in a technological infrastructure; others are less costly. To ensure that a distance learning program is effective and successful, several elements need to be present or have been considered in the planning process (Sommerville, 2000). Careful consideration of content and knowledge base, instructional design, communication and delivery vehicle, interaction, learning environment, and learning management are essential to an effective distance learning program. Selection of a particular delivery media should be determined by the content to be taught, which is to be taught, where learning is to occur and how the learning will be measured (Reifer, 2004). Although the Internet has made distance learning a popular buzz word in academic circles, distance learning is by no means a new way of delivering instruction (Jorgensen et al., 2005). Paper and textbook based distance study has a rich history dating back to the 1800's. Paper was the medium of choice for these first distance learners. Although often overshadowed by methods using higher technological devices, paper based distance learning remains an effect alternative for delivering instruction at a distance. Well-designed course materials including textbooks, periodicals and journals, study guides, written assignments, graphics and illustrations can provide sound instruction and yield measurable learning outcomes (Pink, 2005).

Strengths:

- Learners are familiar with the tools, slight if any learning curve
- Ease of delivery
- Students do not need any special equipment
- Good alternative for providing education to underprivileged and remote populations
- Often coupled with higher tech way (e.g. video, audio, CD-ROM, or e-mail).

Weaknesses:

- Instruction is only as sound as the course design
- Distributing materials via mail can be costly and time consuming

- Can be viewed as less effective because it is less sensational than higher tech methods

- There is an association of paper-based instruction with the correspondence courses which is sometimes perceived as having compromised educational value.

Audio Teleconferencing: Audio teleconferencing is distance learning that uses the telephone. This way is often coupled with printed materials and sometimes other technologies. Audio teleconferencing is a synchronous medium and can be a cost effective choice (Lane and Valerdi, 2007).

Strengths:

- Use of familiar and accessible technology — the telephone

- Ability to set up a call on short notice
- Relatively low cost

Weaknesses:

- Students are time-bound
- Not well suited for large groups

Video: Numerous distance learning programs have implemented video based distance learning programs. Video can add demonstrative elements to a paper-based system. Students can view a video (generally a VCR tape) from their house or office and complete corresponding assignments (Kitchenham et al., 2007).

Strengths:

- Learners are familiar with the tools, slight if any learning curve

- Ease of delivery
- Many households have a video cassette player

- Tapes can be re-used by many different students

Weaknesses:

- Quality tapes require high-end video and editing equipment

- Learners need to have clear expectations set.

This is not merely watching TV for credit.

Video Teleconferencing: Video teleconferencing combines audio and video elements to create an interactive and visual learning experience. This type of distance learning can be delivered via compressed video, satellite, or point-to-multipoint television (Keung et al., 2004).

Strengths:

- Can link remote sites in real time to classroom presentation

- Remote students can be part of a classroom group.

Weaknesses:

- Requires costly infrastructure
- Students required to meet at a particular site at a particular time

- It is advisable to have a trained site coordinator for each remote link up.

Computer Mediated Conferencing: The Internet and the World Wide Web has led numerous institutions to launch distance learning initiatives. Several platform vendors have emerged on the market that claim to suggest turn-key solutions for online learning.

Strengths:

- Effectiveness in enhancing learning outcomes

- Modest cost

- High degree of portability

- Facilitation of peer-to-peer learning through learner interaction

- Ability to provide a permanent record of the classroom application.

Weaknesses:

- Sound instructional design is paramount. Online materials do not translate to online learning.

- Beware of a technology solution. One size does not fit all in online learning. It is important to know.

- Your audience.

The Age of Information has virtually eliminated geographic boundaries. Institutions are no longer limited to solely relying on locally available faculty. House offices and telecommuting are commonplace. This not only broadens the available pool of expert faculty, but also changes the way in which Director of Educations must manage faculty remotely. Just as distance educators go to great lengths to reduce the isolation of the remote learner, Director of Educations must work to reduce the isolation (and the potential resulting loss of productivity) of a dispersed faculty (Jorgensen et al., 2005). This can be done through various means including periodic conference calls, facilitating an online faculty lounge, sharing relevant resources, best practices, and research, or establishing a faculty mentoring or buddy system. Faculty training is even more pivotal in the Age of Information. Faculty members need to be trained to use effectively any program delivery or productivity tools required to execute their responsibilities. Successful Age of Information Director of Educations provide faculty with access to resources to stay current in their respective disciplines. This can be done through e-mail, application lists, or web sites (Jorgensen et al., 2005). Remote faculty requires a different type of management. Controls need to be in place to effectively track and monitor assignments, feedback, and student-teacher communications. Duties and responsibility need to be more project-based and measurable, and performance expectations clearly defined. Communication needs to be honed to ensure

accountability since compensation for part-time and adjunct instructors is often fee-for-hire.

Student Satisfaction

According to Regis McKenna in his book *Real Time* (1997), the Age of Information is a time of “the never satisfied customer.” Choices empower the consumer. If an education institution cannot adequately serve a student, the student has an increasing number of options to choose from and may be more motivated by the desire for a specific product or service than by school loyalty. This presents a challenge to the Director of Education in the Internet era. Students, considering themselves consumers, rightly demand high quality and outstanding customer service. The Director of Education is responsible, at least in part, for ensuring that students have a positive learning experience. At ISIM University, we use a theatre metaphor when applying quality and the student experience. Students only see what is “in front of the curtain,” that is, the quality of the education materials, online interface, the feedback received from the faculty, and the assistance they get on the phone from the staff and administration. Students do not see anything behind the curtain—how hard the staff and faculty are working or how busy they are. They only witness what manifests in their learning experience. Integrating technology into the learning process is not merely a pedagogical and technological pursuit. There are many student services issues to consider that requires the Director of Education to become involved in the student satisfaction process. Student orientation and managing the learner’s expectations is an important part of the Director of Education’s role in student services.

Director of Educations invest a great deal of time and energy into measuring the effectiveness of the education and training programs. The Age of Information has not changed the importance of outcomes assessment, but it has impacted the methods used. There are a number of automation tools that assist Director of Educations in measuring student performance and progress through the course. Many distance learning delivery platforms are integrating back-end databases that can import student information and retain, store, process student records, and generate grade reports and transcripts, and completion reports. Further, the proliferation of alternative instructional delivery methods has put distance learning under scrutiny, hence increasing the importance of measuring program efficacy, student success, and completion rates to validate the school’s effectiveness.

Assess your current situation — what distance education equipment, technology, program, and human resources do you already have? What needs to

be added or augmented? What fiscal resources can you apply to the development of distance education?

Collaborate with individuals in applying of what your institution needs, wants, and can reasonably expect to accomplish with reference to distance education. Meet with vendors and visit other distance institutions to see what is available. Consider the effects of new delivery mechanisms on institution policy. Will class size be different for distance education classes, for example? Develop a plan and allow for gradual implementation of new technologies. Ownership entails? Who owns the material when faculty collaborates in developing a distance education course? Can a faculty member sell lecture videotapes to another institution? Consider the issue of intellectual property rights does faculty who contribute material for distance education courses own that material?

4. Discussions

In the age of the restless education customer, the need for the Director of Education to be a student advocate increases as all aspects of the student’s experience with an institution affects the student’s perception of the quality of the program. The Age of Information has presented educational institutions and education administrators with great opportunities and challenges. It is critical for an Director of Education or Dean to become increasingly aware or involved in all operational aspects of their institution as it affects the student experience. Just like the life-longer learners returning to schools and colleges, the Director of Education also often needs to be re-tooled to rise to meet the challenges of the new era. Continued education and professional development training should be part of the Director of Education’s professional growth plan. Director of Educations should also take the Distance Education and Training Council’s distance education course, DETC Evaluator Training Program, and become an Accreditation Evaluator the experience is priceless. Innovation is changing the educational landscape at an unprecedented rate and Director of Educations must conscientiously keep these advances on their radar screens. Further, because of the sheer volume of research on these advances, it is also advisable that Director of Educations network with their peers, attend conferences and workshops and continuously sharpen their skills.

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