

REPORT



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Distance Learning at the Tipping Point

Critical Success Factors to Growing Fully Online Distance Learning Programs

Over the last few years, institutions of higher education have embraced online learning and increasingly offered educational programs through web-based distance learning. The emergence of web-based distance learning leveraged individuals' increasing access to the internet and coincided with the "dot-com" boom. As a result, much of the discussion within the web-based distance-learning growth story has focused primarily on the enabling technology platforms that make e-learning possible. However, web-based distance learning is not predicated solely on technology or software infrastructure. For most institutions, it is the technology and academic services and support infrastructure that have proven to be the critical factors in driving program success.

This study focuses on fully online distance learning, defined as instruction delivered entirely at a distance via the World Wide Web, primarily in the form of credit-based courses comprising programs leading to certificates or degrees. Eduventures estimates that the fully online distance-learning market is a rapidly growing opportunity - growing in excess of 40 percent annually, with approximately 350,000 students generating \$1.75 billion in tuition revenues for institutions.

Among the key factors that drive successful distance-learning programs are an integrated set of direct and indirect services: the critical technology and academic services that directly impact the student and faculty online learning experience and the technological and operational infrastructure that ensures program success. Before initiating distance-learning programs, institutions

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must carefully consider the way in which they will - or can - manage these direct and indirect services. Moreover, the integration of direct and indirect services is necessary to ensure consistent, quality program operation.

Institutions that have had success with web-based distance-learning initiatives recognize that fully online programs demand an institutional focus, a high level of administrative and student support, and a reliable technical infrastructure. These elements are more critical in the development of online courses and programs than in the development of online course supplements. When the teaching and learning experience that is core to the institution's operation and mission is delivered entirely online, every aspect of that experience, and the total solution enabling its delivery, must be at the highest level of quality and confidence.

This paper will identify and analyze critical success factors for fully online, degree-granting distance-learning programs through analysis and a series of institutional case studies examining the experiences of select institutions with leading programs that have partnered with e-learning vendor eCollege. These institutions have been strategically successful, while meeting the needs of today's students by delivering a quality experience in this new modality. This study will provide a useful tool for institutions by examining the factors and considerations behind the success of these leading programs.

Market Overview

An Introduction to Fully Online Distance Learning

An argument can be made that web-based distance learning is evolutionary rather than revolutionary, as the Web is simply the latest technology resource in the long march of distance-learning history that began with correspondence courses in the 1890s and extended through the eras of radio, broadcast television, cable, and satellite television. However, the Internet offers an unparalleled level of interactivity, enabling a dynamic, engaging learning experience more akin to the classroom experience than previous static forms of distance learning.

Colleges and universities have employed various strategies to take advantage of the Web as a vehicle for delivering education. Institutions have implemented these strategies with varying levels of university commitment, assorted pedagogical models and expectations, and differing types of web-based solutions. A broad spectrum of offerings are termed "online learning," however, Eduventures' research indicates three core models, each with its own set of characteristics and requirements:

- *Supplemental Programs*, through which students attending class on campus complete some amount of coursework online;

- *Hybrid, or “Mixed Mode,” Programs*, combine on-campus courses with a fully online course component to reduce seat time; and
- *Fully Online Programs*, in which students complete their courses entirely at a distance with no on-campus component.

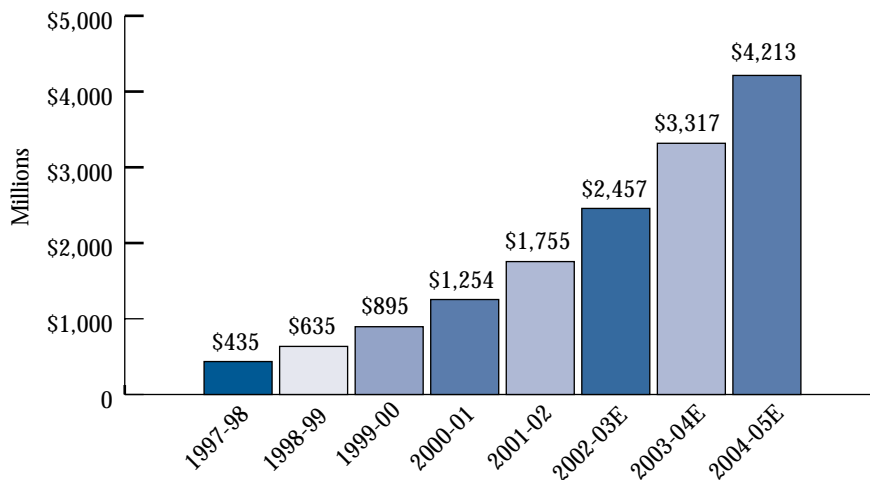
Among these models, fully online programs represent the most challenging shift in the delivery of education, with institutions educating and serving students who are completely removed from the campus environment. The most pressing issue for institutions lies in creating an engaging, pedagogically sound experience, while simultaneously providing a full suite of academic and administrative services to students who may never set foot on the physical campus. The delivery of services in this new modality requires a new type of institutional infrastructure.

The Drivers Behind the Boom

The fully online distance-learning market is large and rapidly growing. A number of widely cited statistics and forecasts have suggested that millions of students are enrolled in web-based distance-learning courses and programs. However, these statistics most often refer to the number of enrollments, as opposed to the number of unique students, in online learning programs and also include a large portion of students in hybrid programs - i.e., individuals taking courses both on campus and online. Therefore, the inclusion of these students significantly inflates the true size of the distance-learning population.

Eduventures estimates that the number of unique students enrolled in fully online distance-learning programs in 2002 was approximately 350,000, representing two percent of all students enrolled in postsecondary education in the U.S. Assuming an

FIGURE 1: FULLY ONLINE DISTANCE LEARNING MARKET GROWTH (1997-2005E)

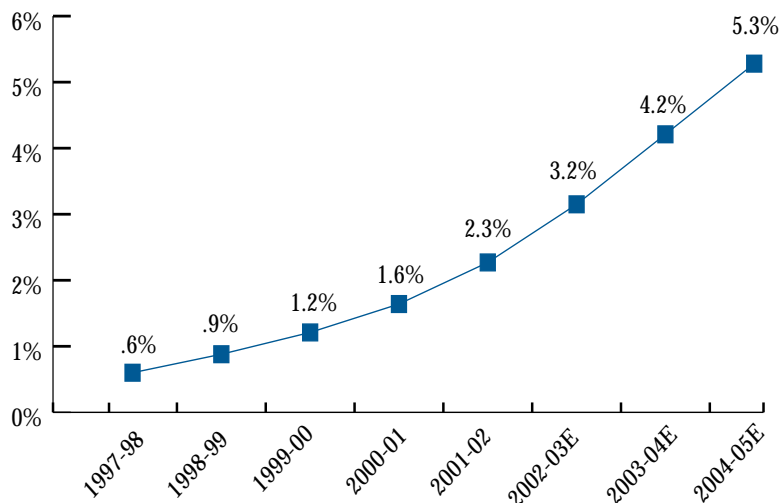


average annual tuition and fee rate of \$5,000 for these students across a variety of certificate and degree programs, the fully online distance-learning market currently generates nearly \$1.8 billion in revenues. [Figure 1]

With access to quality programs expanding daily, web-based distance learning represents the dawning of a new era in higher education. However, increased availability of education - supply - is meaningless without demand. Indeed, a critical factor driving growth in web-based distance learning is a surge in demand for access to postsecondary education, coupled with a new, unparalleled technology delivery channel. Students' ability to access courses at their convenience from virtually any location with an Internet connection has expanded the potential pool of students seeking educational opportunities at a distance.

According to the National Center for Education Statistics (NCES), enrollment in degree-granting postsecondary institutions increased from 14.3 million students in 1995 to 15.4 million students in 2001. Enrollment is projected to rise to 17.7 million students in 2012, an increase of 15 percent. But even within this growth forecast, NCES acknowledges, "the enrollment projections do not take into account such factors as ... the economic value of an education, and the impact of distance learning due to technological changes." While it is difficult to forecast along those variables, clearly both economic and technological trends positively impact demand for higher education.

FIGURE 2: FULLY ONLINE DISTANCE-LEARNING STUDENTS AS A PERCENTAGE OF TOTAL POSTSECONDARY ENROLLMENTS (1997-2005E)



Source: Eduventures analysis and National Center for Education Statistics

In fact, non-traditional students - of which working adults compose the vast majority - have been the fastest growing demographic segment in postsecondary education across the last decade, and it is this segment of the population that is driving growth in distance-learning programs. Figure 2 highlights the growing percentage of fully online students as a percentage of all postsecondary education enrollments.

These non-traditional students often work full-time and attend classes part-time; are married, have children and/or other familial obligations; and are degree-completion or continuing education students. Many are pursuing education in order to gain new skills and advance their careers.

These busy, consumer-savvy students are looking for quality, convenience, and flexibility in an educational program - qualities that align closely with the value proposition of web-based distance learning. Oftentimes, non-traditional students do not see the campus as integral to their educational experience when the same experience can be achieved through a more flexible online format. Therefore, the confluence of student needs and the potential of fully online distance learning creates virtually limitless opportunities for institutions to serve students with online educational offerings. It thus becomes especially important and timely to examine what factors within fully online programs are critical to success - particularly given the challenges involved - in serving this growing and demanding student population.

Addressing the Opportunity Through Fully Online Distance Learning

Institutions with fully online distance-learning programs are seeking to rapidly grow these programs in line with the new opportunities that they present. Many institutions have rather painlessly developed online supplements for on-campus courses or experimented with offering a few fully online courses. However, oftentimes, institutions do not realize the extent of technology and services resources required to scale their programs and achieve success in the fully online distance-learning arena.

In developing fully online programs, it is critical that institutions make sufficient investments in their technology and services infrastructure. The efficient operation of a fully online program rests upon the strength of its technology and services architecture, as the core business of the institution is now being delivered entirely via the Web. The strategic and operational risk involved in developing a fully online program is far higher than with on-campus e-learning supplements or hybrid

programs in which there are physical classrooms and administrative offices on which to fall back.

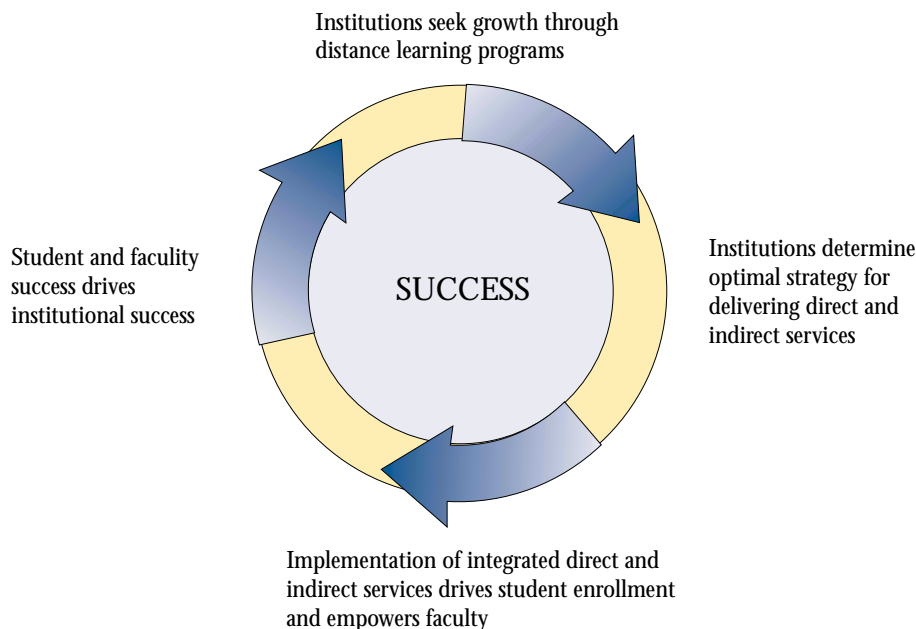
The section that follows will highlight the elements that successful institutions need to consider and examine why these factors are critical.

The Critical Elements: Driving Toward a Blueprint for Success

Students and faculty are the key inputs in the distance-learning equation, and a formula that equals program success is defined by the effectiveness of the services that drive student and faculty success. Eduventures articulates these services that drive success as “direct” and “indirect” services, reflecting their relationship to and impact on the student and faculty experience in web-based distance learning. They are defined as follows:

- *Direct Services* directly touch the students and faculty within the online program and, as such, are the most critical to the program success. Direct services include the e-learning platform, student support, and faculty support.
- *Indirect Services* comprise the enabling administrative architecture for the effective delivery of direct services. Indirect services include technology infrastructure and program administration.

FIGURE 3: THE WEB-BASED DISTANCE LEARNING SUCCESS LIFE CYCLE



An optimal, quality combination of these direct and indirect services - essentially, the right systems, processes, and practices to meet student and faculty needs - will provide the institution with the foundation for a successful program, as illustrated in Figure 3. Eduventures has developed an analytical framework consisting of success factors through our conversations and consultations with numerous institutions that have developed fully online web-based distance-learning programs. Figure 4 presents direct services elements along with an analysis of their criticality to program success and associated challenges.

Direct Services

Direct services are especially critical in driving program success because of their centrality to the student and faculty experience.

E-Learning Platform

The features, functionality, and overall interface of the e-learning platform are the student's window into the entire online learning experience. The e-learning platform is effectively the lecture hall, a place for conversation and study, the professor's office, the library, and administrative offices - all in one. To enable a successful learning experience in this environment:

- Interactions and presentation of materials must be engaging,
- Communication forums must be available,
- Learning materials and advice must be accessible,
- Administrative transactions must be able to take place, and
- Questions must be answered and support provided.

Likewise, the e-learning platform must be easy for faculty to use and master, while balancing this ease of use with a robust level of functionality that provides for the creation of engaging learning experiences and advanced course management.

Student Support

It is imperative that institutions provide adequate support for all students in the fully online experience. As Figure 4 indicates, the majority of critical success factors are in fact technology-related services, versus technology products. It is important for students to be able to access technical support resources around the clock in order to address questions and concerns and assure that they can access online courses without difficulty. Academic support resources ranging from tutoring to advising are also critical. These support resources are just as important, if not more so, for distance-learning students, as they are for on-campus students. However, often institutions do not consider the criticality of access to these resources.

FIGURE 4: DIRECT SERVICES FRAMEWORK

CATEGORY	COMPONENT	DEFINITION	CRITICALITY	CHALLENGES
E-Learning Platform	Course Management System (CMS)	<ul style="list-style-type: none"> • Software that enables the development, delivery, and administration of web-based courses and academic resources 	<ul style="list-style-type: none"> • Creates web-based teaching and learning environment based on available features and functionality • Influences participants' experience based on user interface, ease-of-use, etc. • Serves as primary tool for faculty to design, develop, and administer courses 	<ul style="list-style-type: none"> • Balancing platform functionality with ease of use • Managing new, increasing software licensing expenditures required for platform and related services
	Portal	<ul style="list-style-type: none"> • Software that integrates access to full suite of academic and administrative services and resources 	<ul style="list-style-type: none"> • Provides web-based self-service model for faculty and students • Serves as a communication vehicle to reach university community 	<ul style="list-style-type: none"> • Integrating multiple systems and technologies can be difficult, costly, and time-consuming • Coordinating institutional departments to support portal implementation
Student Support	Help Desk (Technical Support)	<ul style="list-style-type: none"> • Technical support for students to resolve web-based platform and general computing issues 	<ul style="list-style-type: none"> • Helps minimize obstacles students may face in conducting course activities • Supports student retention and course completion rates 	<ul style="list-style-type: none"> • Staffing and maintaining 24x7 support services • Staffing help desk with individuals who possess expert technical knowledge of e-learning platform and related issues • Integrating technology to manage queuing and issue resolution
	Academic Advising	<ul style="list-style-type: none"> • Resource through which students seek and receive academic and career-related guidance and support 	<ul style="list-style-type: none"> • Supports student retention, program completion, and placement rates • Serves as a link for students to the broader institutional community 	<ul style="list-style-type: none"> • Establishing an effective advisory model for the Web • Translating traditional face-to-face service to a web environment
	Tutoring / Academic Support	<ul style="list-style-type: none"> • Course and program-specific tutoring and academic assistance services 	<ul style="list-style-type: none"> • Supports student retention and course and program completion rates • Connects students to the broader institutional community 	<ul style="list-style-type: none"> • Establishing an effective model for web delivery • Translating face-to-face service to a web environment

FIGURE 4: DIRECT SERVICES FRAMEWORK (cont.)

CATEGORY	COMPONENT	DEFINITION	CRITICALITY	CHALLENGES
Faculty Support	Instructional Design	<ul style="list-style-type: none"> Guidance and assistance delivered to faculty to support their development of online courses and resources 	<ul style="list-style-type: none"> Helps ensure that the pedagogical objectives of faculty are met Assists time-strapped faculty in developing engaging courses 	<ul style="list-style-type: none"> Identifying and retaining talented instructional designers Creating collaborative development process that meets the needs of faculty and instructional designers
	Training / Professional Development	<ul style="list-style-type: none"> Training and development to build faculty members' skills and competencies in developing and managing online courses 	<ul style="list-style-type: none"> Empowers faculty to adopt new tools and resources to strengthen pedagogy Improves faculty confidence in their use of online tools and resources Serves as a marketing mechanism for online learning initiatives 	<ul style="list-style-type: none"> Providing incentives for faculty to participate in training and professional development programs Developing an efficient model for delivering training Meeting the potential demand for services as online learning gains acceptance
	Help Desk	<ul style="list-style-type: none"> Technical support for faculty regarding web-based platform/ authoring tool and general computing issues 	<ul style="list-style-type: none"> Helps minimize obstacles faculty may face in conducting course activities 	<ul style="list-style-type: none"> Staffing and maintaining 24x7 support services Staffing help desk with individuals who possess expert technical knowledge of e-learning platform and related issues

Faculty Support

For faculty, support is just as crucial. A supply of well-trained faculty that are comfortable teaching in the online environment is a key determinant of the ability to scale an online program. Faculty success, which should in turn drive student success, requires instructional design and multimedia support and resources, ongoing training and professional development, and a help desk and technical experts whom faculty can turn to for support.

Indirect Services

In many ways, indirect services can be considered the foundational elements for program success, as they are absolutely critical to ensuring the effective delivery of direct services.

Technology Infrastructure

An array of servers, databases, and software applications is required to power the e-learning platform, as well as a network service infrastructure and hosting environment to ensure a high degree of reliability and uptime. The quality of indirect services dictates the stability of the user experience. However, maintaining this infrastructure to ensure the utmost reliability and uptime can be immensely complex and challenging. All aspects of an online learning program rely on the constancy of the technological infrastructure, just as the traditional campus learning experience relies on the constancy of the institution's facilities infrastructure.

Program Administration

Administrative services must be accessible to fully online distance learning students via the Web in the same way that student services are easily available to students on campus. Otherwise, fully online students have no means by which to register for courses, purchase textbooks, conduct other commercial transactions, or access library resources. Web-enabling these services requires a degree of institutional flexibility, because of the many processes and people affected, as well as technological competence. Providing administrative services online also requires extensive systems integration, which can be a formidable technology challenge for institutions with disparate information systems.

Integration of Direct and Indirect Services Is Key

More than simply providing a set of direct and indirect services, effectively integrating the direct and indirect services will drive the efficiency and success of a program. All service elements need to be seamlessly integrated and work together to ensure a cohesive learning experience. Through the e-learning platform, students will need to be a click away from support. And the underlying availability of that support is dictated by systems, departments, and people working together in an integrated

FIGURE 5. INDIRECT SERVICES FRAMEWORK

CATEGORY	COMPONENT	DEFINITION	CRITICALITY	CHALLENGES
Technology Infrastructure	Hardware, Software and Databases	<ul style="list-style-type: none"> Servers, hardware, software, and databases supporting the web-based learning applications 	<ul style="list-style-type: none"> Provides foundation for technology infrastructure Determines scalability of learning platform Dictates the stability of the user experience 	<ul style="list-style-type: none"> Maintaining a variety of systems and platforms is difficult and costly Upgrading system to ensure highest quality infrastructure
	Technology Delivery Management	<ul style="list-style-type: none"> Hosting, network environment and datacenter 	<ul style="list-style-type: none"> Ensures reliability (e.g., protects against server failures) and uptime (e.g., 24x7 student and faculty access) 	<ul style="list-style-type: none"> Maintaining this infrastructure is extremely costly and difficult Upgrading systems to ensure highest quality infrastructure
	IT Staff	<ul style="list-style-type: none"> Technical experts supporting the web-based learning platform and the institution's technology infrastructure 	<ul style="list-style-type: none"> Provides support and maintenance for complex technical infrastructure and related systems Develops solutions to address acute technical problems or system failures 	<ul style="list-style-type: none"> Attracting and retaining IT professionals Delivering sufficient training and professional development to keep staff skills current Managing the cost requirements of an internal IT staff
Program Administration	Web Services	<ul style="list-style-type: none"> Infrastructure for providing online services including registration, e-commerce, library, and other administrative resources 	<ul style="list-style-type: none"> Enables online students to access the same administrative resources and services as on-campus students 	<ul style="list-style-type: none"> Transitioning campus-based services to an online format Coordinating institutional departments and functions to migrate services online
	Marketing	<ul style="list-style-type: none"> Outreach activities to drive student enrollments for online program 	<ul style="list-style-type: none"> Generates student interest in online program offerings 	<ul style="list-style-type: none"> Lacking marketing competencies can hinder program promotion and success Implementing marketing programs can be costly
	Strategic Planning	<ul style="list-style-type: none"> Set of activities for outlining key targets and objectives for online program development 	<ul style="list-style-type: none"> Ensures alignment between institutional vision/mission and online program objectives Drives effective operation of the program and management of program growth 	<ul style="list-style-type: none"> Establishing commitment for online efforts across key institutional constituencies Identifying and applying best practices to extend development of web-based distance learning efforts

capacity to assure that, for example, a student is assigned an academic advisor who can be accessed through an online channel. A lack of integration between direct and indirect services creates many possible points of failure across the program. Therefore, not integrating these services can be costly.

Institutional Capacity vs. Institutional Needs: An Argument for Outsourcing

The various challenges presented in the direct and indirect services frameworks (Figures 4 and 5) illustrate that these services can be very difficult for most institutions to manage. And, because institutions do not specialize in the provision of these services, the variable costs of attempting to provide these services internally can be extremely expensive.

Prior to launching a fully online distance-learning program, institutions must evaluate their internal capabilities and capacity to provide these services. Institutions' capabilities in these service areas vary significantly. While some institutions are able to draw from existing resources, many institutions that do not have sufficient internal resources rely on outsourcing to close the gap between institutional needs and institutional capacity. Figure 6 presents a simplified assessment of the direct and indirect services capabilities for three broad categories of institutions.

For example, a large research university may find that it has the IT talent and resources available to staff its own technical help desk, create a reliable network infrastructure and cluster of servers dedicated to e-learning, or even develop its own e-learning platform. Many prestigious institutions have taken this approach, but

FIGURE 6: INSTITUTIONAL CAPABILITY TO DELIVER SERVICES

Category	Component	Community College	Medium-Sized College	Large/Research University
E-Learning Platform	Course Management System			
	Portal			
Student Support	Help Desk			
	Academic Advising			
	Tutoring / Academic Support			
Faculty Support	Instructional Design			
	Training / Professional Development			
	Help Desk / Ongoing Support			
Technology Infrastructure	Hardware, Software, and Databases			
	Technology Delivery Management			
	IT Staff			
Program Administration	Web Services			
	Marketing			
	Strategic Planning			

with mixed results. In contrast, however, at a community college, administrators may need to find technology tools and expertise, train faculty, and bring basic administrative services online, in addition to addressing the costs associated with the ongoing management of these activities.

Rather than internally maintaining costly systems, recruiting IT talent, and managing data centers and everything from faculty technology training to a help desk, many institutions have chosen to outsource certain or all of these functions. As most institutions lack the capacity and expertise to deliver an integrated combination of direct and indirect services, there is a need for focused vendors to address this issue.

The Need for Service-Focused Vendors

After recognizing the need to outsource certain direct and indirect service elements, institutions select products and services from a variety of vendors. Firms delivering direct and indirect services to colleges and universities include:

- *Course Management System (CMS) Providers* - These companies develop and deliver stand-alone, web-based learning platforms. For these vendors, the software architecture, product features, and platform functionality are typically tailored to enable the creation of online supplements to traditional campus-based courses.
- *Consultancies* - These firms possess competencies in strategy development, systems integration, and/or faculty development services that can be applied to institutional distance learning efforts. These companies offer specific strategy and technical expertise and play a key role in assisting institutional efforts to integrate technology platforms and systems and re-evaluate administrative processes.
- *Full-Service Distance-Learning Specialists* - These companies have developed turnkey, integrated solutions - combining all components of the direct and indirect services highlighted in Figures 4 and 5 - to facilitate institutions' implementation of fully online distance-learning programs. These companies combine technology and service infrastructure solutions to meet the highly responsive service needs of online distance learning.

While institutions can turn to numerous providers to secure key elements of an online learning solution, a handful of leading firms has emerged to assist higher education customers. Eduventures has evaluated the scope of leading firms' product and service offerings in Figure 7 according to the components of Eduventures' direct and indirect services frameworks. Eduventures has assessed these firms' offerings based on their ability to fulfill the objectives of a fully online distance learning program.

FIGURE 7: VENDOR CAPACITY FOR FULLY-ONLINE DISTANCE LEARNING

Category		Blackboard	Collegis	eCollege	PWC	WebCT
E-Learning Platform	Course Management System					
	Portal					
Student Support	Help Desk					
	Academic Advising					
	Tutoring / Academic Support					
Faculty Support	Instructional Design					
	Training / Professional Development					
	Help Desk /					
Technology Infrastructure	Hardware, Software, and Databases					
	Technology Delivery Management					
	IT Staff					
Program Admin.	Web Services					
	Marketing					
	Strategic Planning					

Colleges and universities should first examine vendors' offerings from the perspective of their specific institutional needs. Areas where institutional capacity to provide services is low represent the greatest opportunity for value from a relationship with an outsourced vendor. For example, Figure 6 suggests that most institutions would particularly benefit from support in areas such as the provision of a course management system and portal; technical help desk; and technology infrastructure, as these are not generally core competencies of academic institutions.

Concurrent with this self-assessment, institutions should also consider vendor competencies and determine how firms' expertise aligns with and supports online learning. Across the vast span of direct and indirect services required for fully online distance learning, most vendors have chosen to focus their efforts on a narrow band of activities, as illustrated in Figure 7. CMS providers like Blackboard and WebCT

have devoted much of their organizational energies to developing and licensing e-learning platforms; institutions simply seeking a technology platform for learning would likely consider one of these vendor's solutions. Most consultancies also choose to focus their efforts within discrete distance-learning areas, managing technical infrastructure and integration issues or providing help desk solutions. Firms such as Collegis fall in this category. A small number of leading professional services firms, such as PricewaterhouseCoopers or KPMG, have developed practices targeting higher education, but these firms partner for components of web-based distance-learning solutions.

However, many institutions will find that implementing a fully online distance-learning program demands a broader set of integrated capabilities than those offered by CMS providers or even the largest professional services firms; full-service distance-learning specialists have developed expertise across the entire spectrum of direct and indirect service elements. In addition, they provide an integrated solution tailored to meet the needs of institutions' fully online distance learning programs. Moreover, these firms eliminate the complexity of institutional efforts to manage multiple software systems and solutions. In particular, eCollege has distinguished itself as the clear leader in the fully online distance-learning market with its focus on the comprehensive, programmatic needs of distance-learning participants - institutions, administrators, faculty, students, and staff.

An examination of selected eCollege higher education customers reveals examples of institutional strategies and approaches to providing direct and indirect services to drive web-based distance-learning success. The case studies that follow highlight three institutions - Bismarck State College, a comprehensive community college; The University of Wyoming, a public research university; and Strayer University, a publicly traded for-profit institution - that have achieved key targets and objectives in working with a eCollege to develop fully online distance-learning programs.

Bismarck State College

Institutional Context

Founded in 1939, Bismarck State College is a comprehensive community college and one of 11 campuses within the North Dakota University System. The college serves approximately 3,000 credit students each semester and more than 16,000 individuals through its Corporate and Continuing Education programs. According to Bismarck's mission statement, the institution "emphasizes the necessity of remaining open to evolutionary change to best fulfill present and future demands which will be placed upon it."

An Online Program to Execute on a Vision

Bismarck's dedication to managing evolutionary change is notable with respect to the development of its online program. Donna Thigpen, the president of Bismarck State College, emphasizes that a detailed strategic planning process has been critical to the program's success. The College's decision to launch its online program was a strategic reaction to new demands placed upon the college. Bismarck realized in the mid-1990s that demographic trends in the geographic region that it serves were shifting dramatically. If the trajectory continued, the institution projected that the reduced number of 18-20-year-olds that comprised its traditional student population would have a significant impact on enrollments.

In fact, Thigpen reports that the fastest growing population in North Dakota is adults over the age of 85. Faced with this trend, finding a way to maintain its enrollments, if not increase them, was an issue of institutional survival. The College responded to this challenge in an entrepreneurial fashion, determining that a web-based distance-learning program would be key to growing its enrollments. After researching the experiences of other institutions with web-based distance-learning programs, Bismarck conducted a strategic evaluation of its strengths in various academic programs and decided to bring certain niche offerings online.

One such offering was Bismarck's academic program that addresses the training needs of the energy industry. As a national leader in offering certificates and degrees in the energy industry, Bismarck launched an online program that prepares students for careers in energy-related fields. In partnership with associations and firms within the energy industry, the program has been particularly successful and is highly regarded. Bismarck's web-based energy program reaches nationwide, and interest in the program continues to build rapidly via word-of-mouth. The students enrolling in classes at Bismarck via the distance-learning program represent an opportunity on a grand scale for the institution's continued success.

Since the first online classes - six general education and elective classes that enrolled 67 students - were offered in the fall of 1998, the web-based distance-learning program has grown to 85 online courses with nearly 750 students in Fall 2002. Bismarck leads the state of North Dakota in online learning, having grown enrollments in excess of 100 percent for more than four straight years.

Critical Factors Behind Bismarck's Success

The key challenges faced by Bismarck in the launch of its program revolved around developing a program infrastructure from a policy, technology, and student services perspective. Faculty needed to be trained and brought to a level of technical proficiency; an IT infrastructure needed to be implemented; and a technical support help desk needed to be staffed. Bismarck administrators knew that these tasks would be challenging for a small institution with limited resources; moreover, the success of this program would be critical to the institution's overall mission and viability.

Recognizing that the potential benefits and opportunities associated with launching a web-based distance-learning program outweighed the risks, the institution mapped out a strategy for building and growing the program from the ground up. As a small, two-year institution with limited resources, Bismarck decided to partner with an outsourced e-learning vendor. Initially, its expectations for service were not delivered by the vendor that it had hired to help pilot the program. The institution recognized, however, that it would require a turnkey solution to meet its needs across a variety of direct and indirect services categories and partnered with eCollege.

Direct Services - Providing an Infrastructure for Student and Faculty Support

President Thigpen acknowledges that the web-based distance-learning program could not be successful without properly training faculty and providing them with the help and support that they need. Starting from scratch, Bismarck realized that it needed instructional designers but had none, a significant problem given the challenges of instructional design and course development in an online environment. Thus, the institution relied on eCollege's team of instructional designers for support.

The technology platform's ease-of-use was also an important concern. The College wanted to ensure that it would be both easy for students to use and easy for professors to design courses in. Dave Clark, vice president of operations and corporate and continuing education at Bismarck, notes that the institution was impressed with the full array of tools offered by eCollege - particularly those allowing faculty to design online courses, and assessment resources.

The institution views student support as a critical element of student retention, and it believes that the reliability, consistency, and quality of this support are critical for success. Bismarck also notes that it is nearly impossible for a small institution in a

rural area to have the resources, expertise, and IT talent to staff its own support services, arguing that an outsourced solution has been most effective for the college.

Bismarck considers the student technical help desk, staffed by eCollege, to be a major factor behind the program's success and its smooth operation. The college is especially aware of this after experiencing problems with its previous technical support help desk provider. Today, Bismarck has confidence in its support infrastructure as well as in the reliability and uptime of the e-learning technology platform itself. Without having to be concerned about directly providing these services, Bismarck is able to focus its resources internally on teaching, learning, and program administration.

Indirect Services - A Foundation for Program Success

Lane Huber, director of distance education at Bismarck, notes that the institution immediately realized that it did not have the technology infrastructure to scale an online program; he argues that outsourcing the school's technology infrastructure was perhaps the most important consideration in the program's development.

Bismarck administrators report that the strategic planning process was critical and the College applied a business-like approach to environmental scanning and forecasting. President Thigpen notes that, "Historically, colleges look at the past to forecast the future. Instead, we looked at the trend lines and asked 'What is going to happen? What trends will impact the institution? Which positive trends can we make work for us, and which negative trends can we mitigate?'" Through careful planning and strategic thinking, Bismarck has charted a path for the continued success of its program.

University Of Wyoming

Institutional Context

Located in Laramie, Wyoming, the University of Wyoming is the only four-year postsecondary institution - and one of only eight institutions - in the state. The institution serves students across nearly 100,000 square miles of territory and enrolled more than 11,500 students in the fall of 2001.

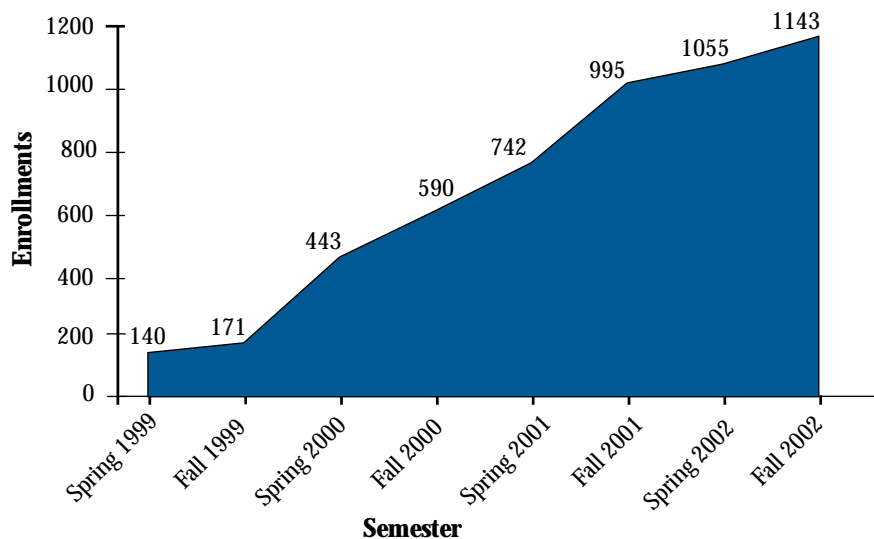
The University's distance-learning program lies within the University's Outreach School, which is tasked with the mission of extending the University's educational programs to the state of Wyoming and beyond. The Outreach School's Division of Outreach Credit Programs manages its web-based instruction activities. Through its program titled "Online UW," the institution offers online programs in the areas of business administration, family and consumer sciences, and RN/BSN completion in nursing, as well as graduate majors in instructional technology and nursing, and online certificates in real estate and family and consumer sciences.

An Online Program to Execute on a Vision

The University of Wyoming has a long history of distance learning dating back to 1892 when University president Albinus Alonzo Johnson saw extension activities as "the missionary spirit of the church applied to education." The University's extension program was the first of its kind west of the Missouri River to offer correspondence courses. Since that time, the University has offered courses via instructors who flew by airplane, audio teleconferencing, and video telecourses. With a commitment to outreach and heritage in distance learning, the University has extensive experience in serving non-traditional students who are unable to attend courses at the main campus. The Online UW program was launched as another way to reach those students.

Fall and Spring semester enrollments in UW programs have grown more than 700 percent since Spring 1999. (Figure 8) Over this time, the number of courses offered has grown from 10 to 44. Annual enrollments for Online UW programs totaled more than 2,940 for 2002, across 117 online course offerings.

**FIGURE 8: ONLINE UW PROGRAM
FALL & SPRING SEMESTER ENROLLMENTS**



The Online UW program's genesis was a program review within the entire Outreach School. A task force had been created, and it was recommended that the University pursue online learning through the Outreach School. The Outreach School investigated what would be required to launch an online program, closely examining resources across the entire institution. Ultimately, the University determined that it did not have the IT infrastructure, staff, or administrative resources to launch an online program on its own. For these reasons, Wyoming chose to work with an outsourced vendor to meet its needs. After working with a number of local vendors, Dr. Judy Powell, former dean of the Outreach School, recommended and established an institutional partnership with eCollege to grow its web-based distance-learning offerings.

From the beginning, the Online UW program sought to answer the question, "How can additional students be reached and degrees be delivered in this new medium?" In maintaining a student-service focus, Maggi Murdock, associate vice president of academic affairs and dean of the Outreach School notes, "We are here because students need us to be here; we do whatever it takes to be sure that we help those students." In addition to a focus on serving students within the state of Wyoming, the Online UW program would also provide a new opportunity to the institution's successful initiatives beyond Wyoming.

Critical Factors Behind Wyoming's Success

The University was challenged to translate the Outreach School's distance-learning mission and history into a successful web-based offering. This transition would challenge Wyoming's traditional architectures for providing student and technology services. In fact, Wyoming's administrative infrastructure was effectively re-envisioned within the context of the online program and the direct and indirect services elements required for success.

Direct Services - Providing an Infrastructure for Student and Faculty Support

Initially, the University did not realize the scale of student services that would be required to operate the program effectively. At the time of the Online UW program's 1999 launch, the University did not provide access to student services in an online format. Since that time, student services are increasingly available online, but from the beginning services from eCollege have proven especially important in web-enabling administrative services such as online student registration. The technical help desk service offered by eCollege is also critical for the institution, as it did not have this function previously. As an additional student support measure, the Online UW program assigns an online academic advisor at the very beginning of a student's pursuit of a degree online to ensure student academic success.

After examining the institution's internal capabilities in the area of faculty support, the University determined that the need for instructional designers and other faculty support could be served through the existing staff within the Outreach School and the University's Center for Teaching Excellence. Arietta Wiedmann, associate dean of the Outreach School and division head of Outreach Programs at the University of Wyoming, notes that it has been important not only to give the faculty the e-learning platform and the instructional design support, but also to provide them with release time to design best practices for online learning with other colleagues.

Indirect Services - A Foundation for Program Success

Online UW administrators attribute the program's remarkable growth in part to the support it has received in partnership with eCollege. Larry Jansen, program coordinator, notes, "We would not have been prepared to handle the skyrocketing enrollments with our infrastructure; administrative services for student and faculty support from eCollege were fundamental in achieving growth." Jansen also suggests that program administration is perhaps the most underemphasized element in the consideration of online programs by institutions; institutions need to be concerned not just with bringing courses online, but also with the administrative elements that provide the foundation for those online courses.

From a technology perspective, the University chose to partner with eCollege because it lacked the resources to develop and maintain its own systems to support e-learning. Administrators within the Outreach School report that the “behind-the-scenes” architecture is critical to serving students effectively, though it is not immediately visible to students unless there is a problem. The Outreach School also has been careful to ensure integration with the University’s broader systems, and it continues to work to integrate systems and practices across the broader university community.

Strayer University

Institutional Context

Strayer University traces its history back to 1892, with Dr. S. Irving Strayer's founding of Strayer's Business College of Baltimore City. Since that time, the for-profit institution has expanded throughout the mid-Atlantic U.S., serving more than 14,000 working adults at 20 campuses in Maryland, Virginia, Washington, D.C., and North Carolina, and worldwide via its Strayer Online web-based distance-learning program. Not only have thousands of students graduated from Strayer programs with practical skills to advance their careers, but the institution has also built a \$100 million per year business. Publicly traded on the NASDAQ exchange, Strayer Education, the parent company of Strayer University, is valued at more than \$450 million. Strayer has credited the business's improved operating margin and profitability to the continued growth of its online program.

An Online Program to Execute on a Vision

Throughout its history, Strayer has adapted to meet the educational needs of the working adult population, providing classes tailored to their time demands in formats ranging from 12-course certificates and diplomas to master's degrees. In 1996, the University saw online learning as a logical extension of its mission and orientation to convenience. Distance learning has provided yet another vehicle to serve working adults with a valuable educational experience.

Strayer began its early web-based distance-learning efforts by offering synchronous distance-learning courses, a model that features real-time interaction between professors and students. Today, Strayer offers both synchronous and asynchronous online courses, the institution has found that approximately one-third of its student population prefers the synchronous model and the real-time interaction it provides, while two-thirds of students prefer the "anytime, anywhere" value proposition of the asynchronous model.

Following on its success with its initial synchronous web-based distance-learning offerings, Strayer sought to create "the best asynchronous offering in the online market," according to Scott Steffey, COO of Strayer Education. Strayer invested significant resources in its asynchronous program. The institution expanded its admissions staff focused on driving distance-learning enrollments and partnered with eCollege to help implement and launch the new asynchronous model. Strayer's asynchronous, web-based distance learning programs went live in July 2001. The program has grown to include more than 300 classes. For the Summer 2002 term, Strayer Online enrollments increased 92 percent to 3,612 students compared to the same term in 2001.

Critical Factors Behind Strayer's Success

Strayer faced an important challenge in reproducing the success of its synchronous program in an asynchronous format. The institution needed to translate best practices and lessons learned from its synchronous program to the asynchronous offering. This transition required an entirely new technology infrastructure and support system. From a business perspective, Strayer made the decision to work with an outsourced provider, eCollege, because the institution believed that doing so made the most sense in terms of total cost of ownership and generating the best return on its distance-learning investment.

Direct Services - Providing an Infrastructure for Student and Faculty Support

Strayer was intent on creating an engaging learning experience for students, enabled by a robust level of functionality within the e-learning platform. The platform needed to be easy to use for both faculty and students, and it was also important, according to Pam Bell, director of Strayer Online, that the platform utilize a standard web browser for universal access. Strayer determined that interactivity was critical for student success in providing more than a “page-turning” experience, given the lack of a classroom or synchronous element in the model.

Student support is absolutely critical to Strayer's online business plan, especially because of its strong focus on customer service. Strayer largely attributes the success of its online program to its emphasis on this student support infrastructure. To this end, the 24-hour, seven-day-a-week technical help desk provided to students and faculty by eCollege has been especially important for Strayer to meet its students' expectations. The institution has also provided online tutorials and orientations to students in order to familiarize them with the interface, tools, and process behind the online learning experience. This focus on providing a support infrastructure and guidance services to students has been critical in driving student course completion and retention rates according to Strayer officials.

In terms of faculty support, the institution has developed its own internal support and training resources, with additional assistance from eCollege. Faculty support and instructional design assistance are viewed as key to not only driving efficiencies, but also to assure that faculty have the assistance and tools they need to create engaging learning experiences that will drive positive student outcomes.

Indirect Services - A Foundation for Program Success

Bell argues that an integrated approach to direct and indirect services is critical to Strayer's online success and believes that no one administrative element should be prioritized over another. However, she notes that it is necessary to work closely across departments and with a vendor to ensure success in program administration.

The reliability and scalability of the technical infrastructure behind the e-learning platform were paramount concerns for Strayer, as the technology would need to be able to scale rapidly along with the program. This capability was an especially acute concern for Strayer because of the criticality of the online program to Strayer's overall business. By partnering with eCollege, system downtime has not been an issue and overall technology risks have been mitigated. By outsourcing the backbone technology elements of its web-based distance-learning program, Strayer is able to focus on its core activity of delivering education programs to working adults.

Conclusion

It is in the midst of today's rapidly growing distance-learning marketplace that true success stories are beginning to emerge. The experiences of the institutions profiled in this paper highlight a few of these stories, demonstrating how institutions are supporting their success through working with an outsourced vendor. For Bismarck State College, web-based distance learning is a key component of its growth strategy. At the University of Wyoming, a long tradition of distance learning and outreach activities is being extended further through the Web. And for Strayer University, web-based programs continue to be key to the institution's growth as it meets student needs for flexibility and accessibility.

Numerous other institutions are striving to duplicate the success of web-based distance-learning programs such as these. The pioneering efforts continue. Fully online programs represent the dawning of a new day for higher education, and these programs will be at the core of colleges' and universities' efforts to expand access to postsecondary education in the U.S. in decades to come.

As fully online distance-learning programs grow in scale, the operational approach requires continual evaluation and assessment. And, as the demands of students and faculty continually change and new technologies become available, the technology infrastructure required to support and deliver fully online distance learning will become even more complex. The direct and indirect services frameworks set forth in this report provide an important tool for examining critical success elements at this point in the evolution of fully online distance learning. Utilizing the framework to assess institutional capacity to deliver these critical services and then creating solutions to provide them should better position colleges and universities for success. Over the long term institutions must evaluate critical success factors even more closely to take their programs to the next level.

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Distance Learning at the Tipping Point

Critical Success Factors to Growing Fully Online Distance Learning Programs

by Sean Gallagher, Analyst
with Adam Newman, Director, Research Group

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