

STATE-LEVEL VIRTUAL UNIVERSITIES: A COMPARATIVE CASE STUDY

by

HAIXIA XU

(Under the Direction of Libby V. MORRIS)

ABSTRACT

Distance education is no longer a novel learning format for higher education, with over two thirds of colleges and universities in the United States offering distance educations to 12 million students in 2007. Accompanying the exponential growth of distance learning in higher education is the phenomenon of virtual universities, especially state- or system-level virtual universities. From the rush of experimentation came a wealth of knowledge, and yet more formal research studies of the virtual university phenomenon have been few until now. To address this gap in the literature and gain a thorough understanding of the consortial approach to distance education, this study employed a comparative case study design to examine the organizational aspects that influenced three relatively long-lived state-level virtual universities in their ability to sustain. The purpose of this study is to identify the structure of the virtual universities in supporting their mission, the mechanism and strategies in serving member institutions, and the conflicts within these virtual universities. This study was designed as a comparative case study, with a focus on three exemplary state-level virtual universities, including: Kentucky Virtual University, Ohio Learning Network, and UT TeleCampus. A total of 43 people from the three virtual universities participated in this study, primarily representing three groups: the state higher education board, the management teams of the virtual universities, and the administrators from

higher education institutions participating in the three distance education consortia. Data were collected from various sources, including site visits to Kentucky and Ohio, 33 individual and group interviews with the participants, analysis of written documents, and informal observations. Using Bolman and Deal's theory of organizational frames (1997), each case was analyzed from the four perspectives, structural, human resources, political and symbolic. The findings help to better understand virtual universities in terms of the perceived needs, mission, structure, services, challenges, and changes in the past decade. The findings will also inform leaders of higher education as they plan, develop, and maintain administrative goals and structures for statewide online learning initiatives.

INDEX WORDS: Virtual University, Distance Learning, Higher Education Innovation, Organization and Governance

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DEDICATION

To the many marvelous teachers in my life.

Without their genuine confidence, I would never be where I am today.

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CHAPTER ONE

INTRODUCTION

Distance education is no longer a novel learning format for higher education. According to a report released by the National Center for Education Statistics in December 2008, during the 2006-7 academic year, 65% of 2- and 4-year Title IV degree-granting postsecondary institutions offered college-level, credit-bearing distance education courses. Twenty-nine percent of 2- and 4-year institutions reported degree programs that were designed to be completed entirely through distance education. The distance education enrollments were estimated to reach 12.2 million, including 77% reported in exclusively online courses, 12% in hybrid courses including both online and face-to-face components, and 11% in other types of distance education courses (Parsad & Lewis, 2008).

Along with the exponential growth of distance education, innovations in distance education have emerged at institutional and state levels. Higher education institutions—especially those in the private sector—have established online for-profit subsidiaries since the late 1990s. The launch of the Western Governors University (WGU) in 1996, a cross-state degree-granting university offering exclusively online programs, triggered the vision of a *virtual university* and spurred the rise of distance education consortia as a means by which to broaden access to higher education. As the alternative to Western Governors University, California Virtual University (CVU) was launched a year later as the pioneer of a state-level virtual university movement. A joint project of the state's three public-college and university systems and private colleges, CVU in the late 1990s maintained an electronic catalog of more than 1,600

courses available over the Internet, on television, or through other technologies (California Virtual U. Doubles Its Course Offerings, 1998).

Although CVU came to a sudden dissolution in 1998, the model was adopted by other states in the following decade and there came into existence many distance education consortia, or *state-level virtual universities* as they are called in the media literature, although not all bore the name “virtual university.” According¹ to a 2003 report by the National Center for Education Statistics, of the 2,320 higher education institutions that offered distance education courses during the 2000-01 Academic Year, 60% participated in some type of distance education consortium. Among these member institutions of consortia, 75% reported participating in a state consortium, 50% in a system consortium¹, 27% in a regional consortium, 14% in a national consortium, and 4% in an international consortium. Compared with private colleges and universities, public higher educations are more likely to participate in distance education consortia. In spring 2002, 83% of public two-year institutions and 68% of public four-year institutions reported participation in distance education consortia of some sort, primarily in the form of state-level virtual universities (Lewis & Waits, 2003).

Definition and Delimitations

As is fully addressed in Chapter 2, there is no uniform definition of the term *virtual university*, due to the complexity of this innovation. This study uses the definition at the official website of the Western Governors University:

The “virtual” in virtual university comes from “virtual reality”—computer-world lingo that refers to something that appears to be real in a physical sense, but is not. A virtual university is a new kind of higher education institution that does not have a classroom

¹ According to the NCES report, a system consortium refers to a consortium within a single university system or community college district.

building or location in the physical sense. It uses technology to reach students wherever they are. It is not constrained by geography; it has no campus in the traditional sense.

For this study, the term *state-level virtual university* is adopted to refer to non-degree-granting distance education consortia at the state level (by statewide governing or coordinating board, such as Kentucky Virtual University or Tennessee Board of Regents) or at the system-level (by a single-sector university system office, such as SUNY Learning Network, the University of Texas TeleCampus, and Washington Online Virtual Campus). Other kinds of virtual universities are not the focus of this study, such as the regional virtual universities (e.g., Southern Regional Electronic Campus), or multi-state virtual universities (e.g., Western Governors University), or stand-alone virtual universities (e.g., University of Phoenix Online), or individual campus efforts in developing online learning venues (e.g., Penn State World Campus). These organizational approaches, however, are discussed in Chapter Two.

In the past decade, nearly every state has launched a virtual university in the form of a consortium. Unlike the stand-alone accredited Western Governors University, these distance education initiatives are not “real” universities in the sense of degree granting, but consortia of participating institutions within a specific state governing or coordinating board. A majority of these virtual universities were created by the state to reach students who would otherwise have no access to higher education. Accordingly, they were largely funded through legislative allocation, at least at the start-up stage (Trigg, 2002). Without exception, they maintain electronic portals containing courses and programs offered online or using other delivery systems. Some of them also offer services to participating institutions (e.g., technological service, consulting service, grants for developing new programs), or to students (e.g., online registration, online tutoring, help-desk.), or to faculty (i.e., training workshops, grants for delivering new

courses). In addition to serving as a clearinghouse and service provider, some virtual universities attempted to use this structure to bring about policy changes in the distance education arena, which has historically been governed loosely, if at all (Zeller, 1995).

Statement of the Problem

As an innovative educational structure, state virtual universities are still undergoing experimentation and transformation. While a few state-level virtual universities have demonstrated a fair amount of success in achieving their goals and meeting the state demands, many others are still in the early phase of development and face the critical issue of sustainability. Consequently, leaders of virtual universities call for a better understanding of how virtual universities can operate to improve their performance and meet their goals to continue to grow and prosper. For example, Darcy Hardy, Assistant Chancellor of the University of Texas System and CEO of the University of Texas (UT) TeleCampus pointed out, “there is without a doubt a lack of understanding about what the TeleCampus really does, the value it ultimately adds, and how complex the collaborative can be” (Epper & Garn, 2003, p. 47). Although this comment was referring to the UT TeleCampus, it is an indicator of the lack of a sound understanding of the operation of virtual universities overall, their pitfalls, and the good practices, primarily due to the variety of virtual universities and the complexity of their operations.

Virtual universities are not sufficiently addressed in the literature to date. As a recent phenomenon, virtual universities—degree-granting and non-degree-granting consortia alike—have been the focus of numerous discussions yet not based on a solid foundation of data. The current literature on state-level virtual universities is even more scant and far from substantive; what literature exists is limited to discussion of this innovative structure, clarification of the term

and classification of its varieties, description of its organizational models, and suggestions of a framework to study policy issues concerning virtual universities.

Missing from the literature is a close-up analysis of the consortial approach to distance education efforts at the state (or system) level. While current literature has presented a landscape of state-level virtual universities and in some sense answered the question “*who are they*,” there are few data-backed studies addressing questions such as “*what do they achieve*” and “*how do they achieve it*”. For example, it is also important to know how they structure their organization, how they serve their constituencies—whether it is student, faculty, or higher education institution—how they solve the conflicts and issues arising within the organization, and how they attach meaning or value to their activities.

Among the few studies on state-level virtual universities, they tend to focus exclusively on the perspective of those running virtual universities; hence ignoring the fact that there were various players within the organization, each with their own interest. It is the interaction of different groups and interests—staff of the virtual universities, participating higher education institutions, and students enrolled in the courses and programs through the virtual universities—that shapes the work of the virtual universities and determines the functions and operations of the virtual universities. This study is unique in that it investigated the experiences and perceptions of two groups that comprise a virtual university, respectively, the management team that runs the organization and the selected representatives of member institutions that participate in the organization.

Research Questions

To address this gap in the literature and gain a thorough understanding of the consortial approach to distance education, this study employed a comparative case study design to examine

the organizational aspects that influenced three relatively long-lived state-level virtual universities in their ability to achieve their missions. Bolman and Deal's theory of organizational frames (1997) was adopted to guide this study and analyze the results. Specific research questions include:

1. What organizational and governance structures are in place to support the mission of the virtual universities?
2. What strategies do the virtual universities use to engage and serve higher education institutions and targeted audience?
3. What factors have the potential to cause conflicts within the virtual universities?
4. How are distance education consortia effectively developed and sustained?

Research Methodology

To obtain in-depth information, this study was designed as a descriptive case study using a qualitative approach (Merriam, 1988; Yin, 1994). Three public virtual universities were chosen as exemplars, based on the advice of an expert on state-level virtual universities. Combined, these three organizations were representative of exemplary institutions of this type in the United States. Individually, each of the three organizations was unique in its own way: Kentucky Virtual University is a pioneer virtual university with a national reputation; Ohio Learning Network excels in facilitating distance education initiatives by its member institutions, both public and private; UT TeleCampus distinguishes itself by its quality assurance system and its focus on collaborative online degree programs instead of individual online courses. A total of 43 people from the three virtual universities participated in this study, primarily representing three groups: the state higher education board, the management teams of the virtual universities, and the

administrators from higher education institutions participating in the three distance education consortia.

Data were collected from various sources, including site visits to Kentucky and Ohio, 33 individual and group interviews with the participants, analysis of written documents, and informal observations. Data were analyzed following constant comparative analysis from grounded theory (Strauss & Corbin, 1994). In accordance with Goetz and LeCompte's 1984 guidelines, for each case, the data were read through several times before notes and comments were made; the notes were classified into a primitive outline; and, the outline developed into a detailed description of each case. A second level of analysis involved developing categories within each case (within-case analysis), followed by a thematic analysis across the cases (cross-case analysis).

Significance of this Study

The past decade has evidenced the rise, growth, and in some cases dissolution, of virtual universities in nearly every state. It is fascinating to see how some highly publicized institutions like California Virtual University dissolved after very brief operation, while a few well-established institutions like Michigan Virtual University persist but have shifted their focus from postsecondary education to the K-12 sector. Both researchers and policymakers wonder what has helped some state-level virtual universities to sustain and prosper while their peers have perished. An in-depth examination of these exemplary state-level virtual universities is significant for the virtual universities, for states that fund these initiatives, and for many higher education institutions that participate in these distance education collaboratives.

This study is of significance for policymakers at the state level, considering the state input to distance education consortia and the participation of a large number of higher education

institutions. Using a structural perspective, this study took a close look at the goals and strategies of three exemplar state-level virtual universities and examined whether these innovative structures achieved the statewide goals of expanding access to higher education or simply catered to the needs of colleges and universities through serving primarily traditional residential students. This study will help higher education leaders at different levels (i.e., institution, system, and state) better understand consortial arrangements, be better able to develop policy and plans for these virtual institutions, and be able to draw some useful practices for planning and implementation at traditional institutions.

This study also explored the changing trends of distance education governance in the states where state-level virtual universities are in operation. Historically, distance education in the United States has lacked a public policy agenda (Epper, 1997; Zeller, 1995); using a collaborative model, the virtual university represents an innovative effort by the states to facilitate distance education. Through examining these alternative models in three states, this study provides insights into the feasibility of a consolidated system of distance education.

This study is also useful for other virtual universities at the state- or system-level, especially for those still in the early phase of developing collaborative structures of this kind. Drawing upon the experiences of participating institutions as well as the management team of the virtual universities, this study recorded the interactions between the two groups and demonstrated how the interactions helped to redefine the missions of the organization and determined the strategies to engage higher education institutions.

The findings from this study also provide implications for colleges and university that are already in or considering joining a distance education consortium in their state. The research identified aspects of virtual universities that were positively perceived by member institutions,

and it explored inter-institution collaboration within the three organizations. Because online education makes it possible to learn “anytime, anywhere”, traditional higher education institutions have the potential to collaborate with each other beyond geographical boundaries. However, how to collaborate effectively remains a challenge. This study explored this issue as well.

Organization of the Study

This dissertation is organized into five chapters. Chapter 1 identifies the research problem, defines the purpose of this study, presents the primary research questions, and states the significance of study. Chapter 2 reviews two bodies of relevant literature, one on distance education in general and the other on virtual universities specifically. Chapter 3 focuses on methodology issues involved in the choice of research approach, research design, and data collection and analysis. Chapter 4 provides background information and research findings on each of the three state-level virtual universities, using data from document review and interviews conducted in person or by telephone. Chapter 5 provides a summary of the research findings, compares the similarities and differences of the three cases, and discusses the implications for higher education. A list of recommendations is generated for developing a virtual university, and directions for future research are proposed.

CHAPTER TWO

LITERATURE REVIEW

This chapter provides the background for understanding historical and contemporary distance learning in postsecondary education in the United States. Reviewed are the two bodies of literature available to date pertaining to the focus of this study: one on distance education in general and the other specifically on virtual universities. Three types of literature were primarily reviewed, respectively, books, peer-reviewed journal articles, and reports by professional associations. As virtual university remains a recent phenomenon and hence is insufficiently addressed in the literature, this section also draws upon relevant articles from *the Chronicle of Higher Education* on state-level virtual universities.

Literature on Distance Learning in Postsecondary Education

The first part of this chapter examines five aspects of distance education, including: a historical review of distance education, its effectiveness and a cost analysis of distance education, challenges posed, governance, and the constituencies of distance education (i.e., providers, faculty, students). Although there is a vast literature on teaching and learning in the online environment, it is not of direct relevance to this study and therefore is not included in this section.

Historical Review of Distance Learning

As early as in late 1800s, correspondence learning emerged as an alternative to the traditional residential learning (Holmberg, 2005). Since the early 20th century, technology has played a significant role in the rapid development of distance education, first with the spread of radio broadcasting around 1910, then educational television in the 1930s, teleconferencing in the

1970s and 1980s, and most recently e-learning since the 1990s (Moore, 2003; Morabito, 1999). This section reviews the three phases of distance education, including correspondence study, experimentation with “new technologies,” and web-based education (or online education).

Distance education began with the teaching of adult learners by correspondence. In the United States, the earliest programs emphasized home schooling, liberal education, and vocational training. In 1881, the Chautauqua Correspondence College was founded, and two years later, it was authorized by the State of New York as the Chautauqua College of Liberal Arts to offer collegiate instruction by correspondence and to award diplomas and degrees (Bittner & Mallory, 1993). Correspondence study did not enter the university sector until 1892, when the Extension Department was established at the newly founded University of Chicago. Under the leadership of President William Rainey Harper, who was inspired by his experience at the Chautauqua Institute, the university announced the first adult, university-level distance degree in the world (Moore, 2003).

However, it was the public land-grant universities that proved to be the most fertile ground for distance education in the following decades. Among the pioneering institutions were the State University of Iowa (later renamed Iowa State University), The Ohio State University, Pennsylvania State College (later Pennsylvania State University), and the University of Wisconsin. By 1930, 39 American universities reportedly offered correspondence teaching (Bittner & Mallory, 1993). In addition to degree-granting programs, a continuing education unit was later established as a uniform measure for non-degree continuing education on American campuses, which led to the proliferation of non-credit correspondence courses on many university campuses. Noticing the increasing enrollment, university correspondence educators

started feeling the need to distinguish themselves from the home study schools. In 1968, they decided to call their method *independent study* (Moore, 2003).

Technology played a key role in distance learning from the beginning. Experimenting with “new technology” began with the spread of radio broadcasting during the 1910s and 1920s. Unfortunately, these attempts to deliver programs through radio failed to take off, due to lack of investment and faculty resistance. In 1934, one of the pioneering land-grant universities, the State University of Iowa, became the first university to broadcast educational television programs. The 1970s witnessed the application of direct broadcast by satellite (DBS), and other forms of teleconferencing. Compared with previous models of distance education delivery, the satellite television programs were generally designed for group use, i.e., they fitted in well with the view of education as something that occurs in “classrooms,” unlike the correspondence study. By the mid-1980s there were around 200 college-level “tele-courses” produced by universities, community colleges, private producers, and public and commercial broadcasting stations (Moore, 2003).

The advent of internet technologies in the late 1980s gave distance education a new meaning and a new role. In the era of correspondence study and “new technologies,” distance education was regarded as an unimportant and marginal activity by comparison with traditional face-to-face, residential learning. However, recent technologies like Internet and World Wide Web have made distance learning an increasingly integral part of postsecondary education. Internet technology gives contemporary distance education the potential for students to interact with each other both synchronously and asynchronously.

In the 1990s, a number of universities started running web-based distance education programs, many setting up separate management units for online education. Since then online

distance education has spread around the world, and has become the primary form of distance education in the United States (Lewis & Waits, 2003). According to the National Center for Education Statistics, in 1995 and 1997, only one third of the 2-year and 4-year postsecondary institutions offered any distance education courses (Lewis, Farris, & Levin, 1999). It jumped to 56% in 2001 and 66% in 2007. In 1995, three quarters of a million students were enrolled in distance education courses at the postsecondary level. The distance education enrollments doubled in 1997 and quadrupled in 2001. The enrollments continued to grow and reached an estimate of over 12 millions in 2007, 16 times of the enrollments of 12 years ago. There is no doubt that online distance education is experiencing an exponential growth.

Accompanying the growth of distance education is the emergence of distance teaching universities in the 1970s, heralded by the founding of the Open University (OU). In the United Kingdom, a commission was formed in the late 1960s to identify ways of expanding the higher education system, especially by opening admissions to working class adults (Cerych & Sabatier, 1986). The final product was the establishment of the “University of the Air” that has become known as the Open University (OU). The OU has been described as one of the legends of successful policy implementation ever attempted in the educational field. In part due to its tremendous success, the OU has been widely emulated in other countries, such as China, India, and France (Moore, 2003).

Even though the OU model has never been replicated in the United States, there is no doubt that the OU has influenced the organizational models of distance education in this country. For example, some institutions founded in the U.S. in the 1970s and in the late 1990s, though much smaller, exhibited some of the characteristics of the open universities. Also influenced by the example of the OU were the efforts at consortial organizations for delivery of distance

education (Moore, 2003). A detailed review of distance education consortia is presented in the second part of this chapter.

Effectiveness and Cost Analysis of Distance Education

From the very beginning, the effectiveness and efficiency of distance education have been questioned, resulting in numerous studies. The most-cited work by Russell (1999), *The No Significant Difference Phenomenon*, contains a comparison of 355 research reports, summaries, and papers on the use of technology for distance education spanning 70 years. It claimed that the learning outcomes of distance education students were similar to those of traditional on-campus students; therefore, there were no significant differences between distance and residential education. Another important source is the *No Significant Difference Phenomenon* website maintained by the Western Cooperative for Educational Technology as a companion piece to Russell's book. This website expands on the offerings from the book by providing access to appropriate studies published after the release of the book in 1999. A review of the recent studies (1999-2006) confirms that “no significant difference” still holds true. However, there is no denial that there are other views and conclusions that are reached through extensive research on the effectiveness—or ineffectiveness—of distance education. The majority of opposing views is reported as producing a significant difference while in some the opposite. The differences can be accounted for by the degree of rigor of the research and by various aspects of outcomes the researchers focused on, such as satisfaction of learner, attitudes of learners, performance dimensions, student retention rates, etc.

Cost reduction is frequently cited as an objective to be served through the introduction of information and communication technologies within educational institutions. However, there is a paucity of valid and reliable data on the question of costs (Farrell, 1999). Several reports by the

Alfred P. Sloan Foundation analyzed the twin issues of the cost of online education and its potential profitability by looking closely at distance education at six universities: Rochester Institute of Technology, University of Illinois at Urbana-Champaign, University of Maryland University College, Drexel University, Pace University, and Pennsylvania State University. These reports pointed to two broad conclusions: these institutions were not losing a lot of money on distance learning, yet they were not making much either. Cost wise, on some campuses technical support, technology, and extra faculty pay made online programs more expensive to deliver. On other campuses, producing individual online courses is at least as cost-efficient as producing traditional courses; but as universities continued to expand their operation, the costs became harder to define (Carr, 2001).

WCET's Technology Costing Methodology Project has revealed that technology-mediated delivery was more expensive than face-to-face instruction. The extent to which it cost more depended on a number of factors, including the amount, type, and cost of human assets utilized in the process of course development (Jones, 2002). Bates (2000) stressed that the new technologies would not reduce cost but can improve cost-effectiveness, and that the costs of technology-based teaching could be measured accurately using activity-based costing. Some studies over the past two decades have shown that *mega-universities*, the large distance education systems enrolling more than 100,000 students, teach more cost-effectively than traditional universities. The UK's Open University is widely recognized for a superior cost-effectiveness, with the education of a student costing only 40 percent of the average cost in the traditional universities. In contrast, smaller distance universities or programs are not as cost-effective as large systems (Daniel, 1996). To ease the burden of IT costs, institutions should

consider cost-sharing through collaboration, partnerships, and consortia (Finkelstein, Frances, Jewett, & Scholz, 2000).

Challenges Posed by Distance Education

The rapid growth of online education has brought new issues to traditional higher education institutions, accrediting bodies, and state and federal government. A report issued by the Council for Higher Education Accreditation (CHEA) in 2002 pointed out that online distance learning could alter the traditional faculty roles in higher education and what we mean by “higher education institutions” and “a college degree.” Furthermore, it challenges political agreements about safe delivery of student aid, what counts as higher education quality, and the effectiveness of self-regulation. All these issues challenge the existing policies of postsecondary education institutions.

The rapid growth of online education has brought tremendous challenges to the accrediting bodies. One is the large number of distance learning programs and the time it takes for the accreditation review process. Another challenging question is whether distance education programs should use the same accreditation standards as traditional college curricula. Further, assuring quality in distance learning presents three major challenges to accreditation: (1) what accreditors should do to ensure that the *alternative designs of instruction* (e.g., distance learning) sustain a level of quality commensurate with the standards of their respective organizations; (2) what accreditors must do to ensure that the *alternative providers of higher education* (e.g., online programs offered by traditional higher education institutions, new online degree-granting institutions, distance education consortia, corporate universities) sustain a level of quality commensurate with the standards of their respective organizations; and (3) should accreditors

further expand their attention to include ensuring the quality of independent and discrete learning activities focused with an *alternative focus on training* (CHEA, 2002).

The rise of virtual universities in the 1990s has further challenged accrediting bodies to devise new ways of measuring quality. Jones International University, the first-ever degree-granting virtual university, earned accreditation in 1999 and thereby triggered the debate over accrediting standards for online higher education. The questions it raised have put accreditors and policy majors in a quandary: should they treat the new, electronic institutions the same way they have treated traditional colleges? Should they develop new approaches? If so, what should those approaches be? Does anyone understand online education well enough to decide? Do we need new standards? Will the old standards work? (Olsen, 1999)

Taking into account the complexities of issues, it came as no surprise when accreditation experts reportedly had more questions than answers. David A. Longanecker, former Assistant Secretary for postsecondary education at the US Department of Education noted, “it [distance education] is leading to a very different concept of quality assurance than we have traditionally had—but I’m not sure what that is.” (Olsen, 1999, A29)

To address these challenges, the six regional accrediting commissions have adopted a common statement for reviewing distance learning. This statement, *Principles of Good Practice in Electronically Offered Academic degrees and Certificate Programs*, developed by Western Cooperative for Educational Telecommunications (WCET), called for scrutiny of five key areas of institutional activities that have proven essential to institutional quality; specifically, teaching and learning, curriculum, student support, faculty support, and student learning outcomes (WCET, 2001a). To explicate these principles, another important document, *Best Practices for Electronically Offered Degree and Certificate Programs* was developed shortly after to “assist

institutions in planning distance education activities regarding the electronically offered degree and certificate program, and to provide a self-assessment framework for those already involved” (WCET, 2001b, p. 1). Three years later, the Council of Regional Accreditation Commission, the group made of all the regional associations, hired WCET again to develop a set of supplemental guidelines to set standards for granting accreditation to assist schools in assessing their own distance education programs (Ashby, 2004).

Online distance education has also challenged current governmental policies. For instance, the 50-percent rule, originally passed in 1992 to curb the growth of fraudulent diploma mills, prohibited institutions that enrolled more than half of their students at a distance or offer more than half of their courses via distance from participating in federal financial-aid programs. For years online education advocates argued that the rule limited the growth of distance education. As congress approached the reauthorization of the Higher Education Act, “the question looms large of whether—and if so, how—federal institutional and student financial aid standards should change to permit students in distance learning environments to have access to Title IV” (Carnevale, 2003). In 2006, following the unprecedented growth in online education programs, Congress revoked the rule altogether.

Governance of Distance Education

Zeller pointed out in 1995 that what distinguished the United States from many other countries was that it had lacked a comprehensive public policy agenda for distance education. In many countries distance education is linked to a national agenda and addresses particular economic and social objectives. Historically, government interests in the United States “center on short-term technical, regulatory, administrative, and cost issues rather than on the development of distance education as an instrument of public policy” (p. 124). This view

confirmed Quigley's observation in 1989 that in North America, distance educators appeared to view "access" not in terms of students' access to education opportunities but as institutions' access to the "student market." This emphasis on the "marketing" of distance education signals the entrepreneurial character and institutional ownership of distance education in the United States.

According to Zeller (1995), states in the U.S. varied in the populations they attempted to serve. Some states focused almost exclusively on secondary school students and perhaps teacher education. Others focused on postsecondary education, and a few, on business and industry. While some states attempted to serve all of the client groups.

The states also differed widely in their distance education operations. Some states had well-coordinated and technically sophisticated distance education systems. Others appeared to have little interest in developing any distance education capability at all. Zeller (1995) developed four descriptive, conceptual models to categorize distance education systems in the United States by policy orientation: *Laissez-faire*, *consortium*, *coordinating board*, and *comprehensive*. The *laissez-faire model* of distance education (e.g., Illinois) is characterized by individual initiative with no state-level, comprehensive plan; no collaboration in planning, course development, audience identification, programming, or sharing of equipment or facilities; self-contained, with little or no reliance on resources outside the institution. The *consortium model* (e.g., Washington) is characterized by some coordination, often by a group of providers; little routine long-range planning or development; little or no emphasis on the postsecondary education access needs of the general public; state funding for the distance education infrastructure and campus-specific initiatives. State-level planning is routinely carried out in the *coordinating board model* (e.g., South Carolina) "by a special board or committee with representatives from various providers

and related agencies. In this model the state owns and controls the technical capacity to some extent through the coordinating board, which it convenes; however, individual institutions may also own their own equipment.” (p. 136) The *comprehensive model* has a more ambitious mission—to expand education opportunities to a broad range of student populations in a cost-effective manner. State-level planning, coordination, integration, and delivery in this model is assigned to one institution or agency designated or created for this purpose. Such an agency may have degree-granting authority, with institutions also providing degree programs within the distance education system. In this model, the state facilitates a shared ownership and control of technology; and individual institutions do not develop a separate technical capacity to deliver distance education. It is obvious that with the infusion of Internet technologies into higher education, many states are making efforts in incorporating public agenda into distance education. Many states have created state-level virtual universities as the agency to facilitate or coordinate distance education offerings among higher education institutions.

Zeller (1995) also critiqued the poor coordination of distance education at the state level. While distance education programs were planned and taught by individual institutions, they were seldom coordinated. However, for a successful statewide program, campus administrators must consider access and other important policy issues when developing distance education programs, an argument shared by other scholars (Galdieux & Swail, 1999; Moore, 2003; Southern Regional Education Board, 2002).

Based on Zeller’s research, a comparative case study by Epper (1997) examined three states’ experience with distance education development. Specifically, Epper (1997) explored the forces for coordination and competition within the three state systems of higher education by looking closely at state policies and structures for distance education. The study illustrated that

“state higher education institutions must coordinate in order to compete” (p. 581), as it is difficult for individual institutions to act alone to make the front-end investments required to provide a high-quality distance education product to a large number of students. She also pointed out that this had broad implications for governance in the future, pushing institutions toward consolidated systems or formal partnerships.

Constituencies of Distance Education: Providers, Students, and Faculty

Distance education providers

Evidence suggests that distance education is becoming an increasingly visible feature of postsecondary education in this country. According to the a report by the National Center for Education Statistics (Parsad & Lewis, 2008), during the 2006–2007 academic year, 66% of all two-year and four-year degree-granting institutions offered distance education courses for any level or audience. Consistent with the historical pattern, public institutions were the most likely to offer distance education courses. In 2007, 97% of public two-year and 89% of public four-year institutions offered distance education courses, compared with 53% in the private four-year institutions, 70% in for-profit four-year institutions, and 18% in for-profit two-year institutions. Nearly 40% of the total enrollments in distance education were in public two-year institutions, 29% in public four-year institutions, and over 15% each in private four-year institutions and for-profit four-year institutions. Less than one percent of the distance enrollments were from private two-year and for-profit two-year institutions.

In 2007, 32% of all two- and four-year institutions reported offering degree or certificate programs that were designed to be completed totally through distance education, an increase from 20% in 2001. Specifically, 29% offered degree programs and 17% offered certificate programs. Of the estimated 11,200 college-level programs, two thirds were reported as degree

programs and one-third as certificate programs. Asynchronous internet-based technologies were cited as the most widely used technology for the instructional delivery of distance education courses, as they were reported to be used to a large extent in 75%.

Traditionally, distance education had focused on vocational education, and thus the for-profit sector had been an active part of the distance education landscape from the beginning. Many for-profit colleges and universities were set up in the e-commerce boom of the late 1990s, raising money in stock offerings tied to their distance education programs (Moore, 2003). For-profit institutions, like the University of Phoenix, have a large share of the online enrollment. Although they enrolled only 5% of students at degree-granting institutions in 2004, they attracted 37% of all online students, according to Eduventures, an education-consulting company based in Boston. That proportion is expected to fall to 32% in 2008, in part because of competition from traditional higher education institutions (Foster & Carnevale, 2007). However, in the competition for online students, traditional institutions hold typical advantages such as name recognition and geographic dominance, according to a report by Eduventures, Inc. (Carnevale, 2007). Foster & Carnevale (2007) suggested that public institutions should create online programs that dominate their regions so that collectively, they would be able to take the lead in the online market instead of letting for-profit universities run the show.

Students in distance education

Distance education has been considered form of education predominantly for adult students (Moore, 2003). With the advent of web-based education, there is an ongoing debate in the academic world as to whether this still holds true. It has been assumed that it is predominantly adult learners who take online courses because online learning allows them to continue working full-time and attending to their family obligations. The “typical” online student

has been generally described as “over 25 of age, employed, a caregiver, with some higher education already attained, and equally likely to be either male or female” (Gilbert, 2001, p. 74). However, recent statistics published by the National Center for Education Statistics (2003) indicate that interest and enrollment in online courses spans all age groups. By the end of 1999, 57% of those considered to be traditional undergraduates, ages 19 to 23, had enrolled; those ages 24 to 29 enrolled at a rate of 56%; and those 30 and older enrolled at a rate of 63%. The statistics did confirm that equal numbers of men and women were enrolling, and with the exception of American Indians and Alaska Natives (of whom only 45 percent enroll), roughly 60 percent of all other races enrolled (Gilbert, 2001, p. 3). Despite institutional bragging about how they teach students from all over the world, international students constitute only a small percentage of the online enrollments in American higher education (Carnevale, 2007).

The increasing percentage of residential traditional students deserves great attention from institutional leaders and policymakers. Many administrators have embraced online distance learning because they believe it represents a means by which to recruit adult students living some distance away from their campuses. The statistics cited above, however, are an indicator that, increasingly, as institutions offer online courses, they attract traditional undergraduates in residence on campus and not the geographically dispersed students that administrators anticipated (Phipps & Merisotis, 1999). According to a report by Eduventures, 64 percent of students enrolled in an online program lived within the same geographic area as the institution offering the program, and 36 percent of them lived within 50 miles of it. Only 27 percent of online students lived in an area of the country separate from the institution in which they were enrolled (Carnevale, 2007). In addition, online learning is also becoming popular among high school students. By the end of 1999, 65% of those age 18 or younger had enrolled in an online

course (NCES, 2001). High school students who have experienced online learning want to be able to continue to learn this way in college, and they tend to make decisions about where they will go to college based on how “wired” the institution is and how many online course offerings it has in its curriculum. The fact that online courses are being populated by students who are also taking face-to-face courses on campus is creating a set of concerns, ranging from fees to assignment of faculty course loads—none of which is being addressed or resolved easily (Gilbert, 2001).

Retention is becoming a critical issue in online distance education. Researchers and administrators wonder why attrition from online courses is approximately 50 percent of those enrolled nationwide. Some feel that the heart of the issue is the quality of the courses offered or the differences in teaching and learning online, whereas others believe that the very life circumstances that draw students to online courses—jobs and family obligations—get in the way of their continuation (Carr, 2000, p. 51). Whatever the specific factors are, the role of the institution in the retention of the virtual students cannot be ignored. To reduce attrition in the online classroom, Palloff & Pratt (2003) made the following proposals for institutional leaders embracing distance education: (1) improve possibility of access by using simple course design, and encourage access through public sources, such as libraries, and computer labs, if needed; (2) intervene with students who are having difficulty with online communication to help them develop techniques that they feel comfortable with; (3) assist students with time management, (4) educate and orient students to the demands of and differences in online learning; and (5) design high-quality courses and programs that are learner-focused and responsive to student needs.

Distance education faculty

The size of instructional faculty involved in distance education is inproportionately small, considering that a majority of institutions offer distance education. The National Center for Educational Statistics indicates that about six percent of instructional faculty and staff taught at least one distance education class in fall 1998. Few demographic characteristics (e.g., gender, race/ethnicity), conditions of employment (e.g., academic rank, tenure status), or aspects of education and experience (e.g., highest degree attained, years in current job) were associated with either dimension of participating in distance education. Institution type was associated with teaching distance education classes: faculty at public two-year institutions were the most likely to teach distance education courses (Bradburn & Zimbler, 2002).

There is no consensus as to whether faculty participation in distance education is associated with their employment status (full- or part-time). Bradburn & Zimbler (2002) did not see the association based on the 1998 data; however, the data of 2004 Integrated Postsecondary Education Data System (IPEDS) suggested that the percentage of faculty teaching distance education courses was related to their employment status as well as the type of institution in which they taught in the fall of 2003. Eight percent of full-time and six percent of part-time instructional faculty and staff reported teaching a distance education course in fall 2003. A larger percentage of full-time instructional faculty and staff at public institutions offering primarily associate's degrees and certificates taught via distance (18%), compared with their part-time counterparts at the same type of institution (6%) or either full- or part-time instructional faculty and staff at any other types of institution (3%-8%) (NCES, 2006). Carnevale (2004a), however, reported the trend that online adjuncts were in high demand, as colleges increasingly turned to part-time faculty members to help expand their distance education programs. The strategy saved

money for colleges, most of which were dealing with tight budgets. In addition, full-time faculty members were often reluctant to make the shift from the familiar setting of the lecture hall to the unknown arena of the virtual classroom.

Concerns of faculty regarding participation in teaching online include a lack of standards for an online course, the threat of fewer jobs, and a decline in usage of full-time faculty which faculty believed results in a decline in quality of faculty (National Education Association, 2000; Phipps & Merisotis, 2000). In addition, faculty noted lack of time, increased workload, lack of institutional support, lack of scholarly respect in the areas of promotion and tenure, and a lack of training as other obstacles in participating in distance education (Baldwin, 1998; Bonk, 2001; Lee, 2001; Northrup, 1997; O'Quinn & Corry, 2002; Parisot, 1997; Schifter, 2000).

Literature on Virtual Universities

The second part of this chapter focuses exclusively on virtual universities, a recent phenomenon accompanying the integration of online education into higher education. The literature reviewed covers six themes: (1) a historical review of virtual universities, (2) classifications of virtual universities, (3) a profile of state-level virtual universities, (4) policy framework on state-level virtual universities, (5) failure and success factors for virtual universities, and (6) virtual universities from a national perspective.

Historical Review of Virtual Universities

Virtual universities originate in distance education universities that emerged in the 1970s, pioneered by the Open University (OU) in the United Kingdom. With an annual enrollment of more than 100,000 adult students and around 20,000 baccalaureate graduates each year, the OU teaches around 20% of all part-time higher education students in the UK. It has not only fulfilled the expectations of expanding the higher education system through reaching more members of

the working class, but also has demonstrated that distance is no barrier to the delivery of high quality education. It is ranked by the government near the top of UK universities in both research and teaching (Moore, 2003).

In part due to its success, the OU has been widely emulated in more than 20 nations around the world for nearly 30 years. The most notable mega-universities include the China TV University System, Centre National d'Enseignement a Distance in France, Indira Gandhi National Open University in India, etc. (Daniel, 1996). Despite their differences, these distance education universities share important similarities: they are single-purpose (often called "single-mode") distance teaching institutions dedicated solely to distance teaching and learning; and they are generally national universities employing teams of experts to design courses, having flexible admission policies, and enjoying economies of scale through large enrollments (Moore, 2003).

Among the countries that have not set up a national open university, the most notable is the United States, primarily

“as a result of the fragmentation of control of higher education, with each state jealously defending its own local higher education establishments. Where open universities were successfully established, because of their large scale and consequently large total costs, the scale of provision was nearly always national, and that required national political commitment and leadership, especially in facing up to the higher education lobbies. In United States this kind of political leadership is lacking.” (Moore, 2003, p. 11)

With this said, the distance teaching university movement initiated by the UK's Open University did leave its mark on distance education in the United States at both institutional and state levels. At the institutional level, some institutions that were created in the late 1960s and 1970s, though much smaller, showed some of the characteristics of the open universities. Among

the first of these innovations was Nova University of Advanced Technology (now Nova Southeastern University after merging with the Southern University of the Health Sciences), a nonprofit institution inaugurated in 1964. Nova Southeastern University offered degree programs both in the classroom and as distance education, through regional centers in the state of Florida. Seven years later, the Empire State College was created within the State University of New York system to deliver bachelor's and associate degree programs exclusively at a distance with an annual enrollment that reached 6,000. In contrast with the open universities around the world that are single-mode universities, most of the American distance education initiatives in the 1960s and 1970s were embedded within dual-mode institutions that offered distance education programs as an extension of their campus-based programs, which continued to dominate their missions (Moore, 2003).

Virtual institutions started to emerge in the United States in the 1990s. The forces driving the development of the virtual sector were identified as follows: (1) the increasing capacity, flexibility, and suitability of information and communication technologies for educational applications; (2) the capacity of the technologies to “unbundle” functions that have traditionally been provided by one institution; (3) the realization that the quality of the learning experience can be enhanced by applying information and communication technologies; and (4) the perception of many institutions that the application of information and communication technologies will enable them to increase their market share in an environment that is increasingly competitive. Within this context, virtual universities have witnessed an era of experimentation at both institutional and state levels.

At the institutional level, with the expansion of online learning to the postsecondary education arena, traditional higher education institutions and corporate worlds started to deem

distance education as a lucrative market with the potential for generating revenues. The for-profit sector, pioneered by the University of Phoenix, was quick to enter the market by offering online courses and degrees. Seeing the profitability of online education, some traditional universities started to develop independent for-profit online enterprises in the late 1990s. In October 1998, New York University (NYU) announced the formation of a for-profit subsidiary, NYUOnline, to develop and market continuing education courses on the Internet. NYU hoped to generate enough revenue from distance education courses to subsidize some of its higher-cost on-campus courses. Its perception of the growing market for distance education was shared by a few other colleges and universities, who subsequently set up for-profit subsidiaries for online distance learning such as the Fuqua School of Business at Duke University, Columbia University, University of Maryland University College, and Temple University. Raising capital appeared to be a principal motivation in each case, along with greater flexibility to operate in an increasingly competitive marketplace, including collaborating with for-profit firms (Dutton & Loader, 2002).

However, the “if you-build-it-they-will-come” assumption proved wrong, and some of the most talked-about web-based distance education enterprises quickly passed away. Columbia University is a good case in point. The key element in Columbia’s e-learning strategy was a company called Fathom, launched amid much fanfare in the spring of 2000. Fathom was a consortium of 14 leading U.S. and British universities, libraries, and museums; but more than 90 percent of its financing came from Columbia University, which drew on its stream of patent revenues to contribute an initial \$20 million. The intention was “to develop a knowledge-rich website that recreated the great bricks-and-mortar academic institutions—to establish a commanding presence for Columbia University in what Cole describes as “the high-end, high-

quality distance learning marketplace” (Kirp, 2003, 173-174). However, barely in operation for three years, the for-profit unit was shut down after losing millions of dollars (Carlson, 2003).

Columbia’s plight was hardly unique. Very few of the for-profit spin-offs survived the dot-com crash; by 2002, none of them had shown a profit. For example, NYU Online shut its doors; Cornell’s e-learning operation had few students and only modest earning expectations; Caliber, the Wharton School’s corporate partner, filed for bankruptcy; Temple University abandoned its for-profit unit without offering a single course. Temple’s president David Adamany plainly admitted that they did not see any profit potential there (Kirp, 2003).

Opinions vary as to what caused the dot-com crash. According to Kirp (2003, p. 184-185),

Where the promoters went badly wrong is in forgetting that technology is just a means, not an end—that the critical choices have to do with how it will be used, and for what purpose.... Their error lay in thinking that the economies of scale of e-commerce would work in online learning. To produce a sophisticated internet course costs a great deal (Unext reports that it spends a million dollars on a single course), and course development is not the main expense. Despite the vision of a robotic educational universe, teachers are still needed—even more so, it turns out, than in conventional courses.

Meyer (2003) identified three false assumptions that may explain what went wrong for the dot-com and virtual universities: the underestimated cost of product development, the elusive virtual market, and the value attached to traditional higher education. Kathleen Gilroy, Chairperson and CEO of OTTER Group at Cambridge, Mass, attributed the failure of many distance-learning programs to four factors, insufficient emphasis on the social experience of

learning, failure to sell courses that are unique, removal of faculty from their course offerings, and failure to price strategically (Measuring the Costs of Distance Education, 2001).

After the online spin-offs by private universities, the virtual campus is re-emerging. However, this time the speculators are public universities. Public universities are beginning to realize that with their name recognition and lower tuition rates, they are in a good position to compete with their for-profit rivals. Instead of creating commercial, online branches like their predecessors, they are embracing a not-for-profit model. Two big public research universities, the University of North Carolina and the University of Illinois, were reported to be moving quickly to establish their own distance-education enterprises, with the hope of making money and reaching more students already in the workforce (Foster & Carnevale, 2007).

Among more sustained exemplars of virtual universities are Jones International University, Western Governors University, and the University of Phoenix Online. Jones International University was founded in 1987 and started offering web-based courses in 1995. Catering to an adult audience, mainly working professionals, it received accreditation in 1999 and thus claims to be the world's first ever virtual university.

Western Governors University (WGU) was formed in 1996 with much media fanfare, following a 1995 meeting of the Association of Western Governors. A joint project of 19 states, WGU is a nonprofit, privately-controlled institution designed to offer courses from a network of existing institutions. It received accreditation from a group of four regional accrediting bodies in February 2003. In calling for a "virtual university," the governors lumped together two different but related goals. One was for their states to work together to develop and embrace courses that could be delivered to campuses in their region through computer networks and other technologies. The other goal, promoted most strongly by Governors Roy Romer of Colorado and

Michael O. Leavitt of Utah, was to give academic legitimacy to alternative forms of learning that technology made possible (Blumenstyk, 1995, 11 Western governors to study creation of “virtual university”). WGU distinguishes itself in the following ways (WGU website): (1) it was created specifically to help adult learners fit college into their already busy lives; (2) it is the first online university in the United States to be competency-based: under the system, students earn credits through demonstrated competence on skills or knowledge, which are intrinsically related to their professions; (3) its programs are in the high-demand fields of business, information technology, and education; and (4) it does not design courses itself. Instead, it is an administrative body that endorses, presents to the public, and coordinates the provision of distance education courses from participating institutions. However, it does provide its own degree programs and certification (Farrell, 1999).

The rapid growth of profit sector providers is another dimension of the emerging model scene. Direct providers of instruction, usually with a focus on a particular niche market, have become prevalent and profitable. For-profit institutions have gained much prominence in the past two decades, with the largest one being the University of Phoenix. Founded in 1976, the University of Phoenix delivers courses both in classrooms (through 55 campuses and 98 learning centers in 18 states) and at a distance. It was one of the first accredited universities to offer online college education, with complete degree programs via the Internet. It boasts an enrollment increase from 48,000 to 68,000 between 1999 and 2000, with an online enrollment of 18,500 in 2001 (Kreiger, 2001). It promotes itself as the largest for-profit university for working adults who need convenient, fast, and easy access to degree programs with a vocational orientation.

Similar innovations also took place at the state level. In a 1996 presentation titled *the Virtual University*, Twigg and Oblinger stated that an immense opportunity existed for

institutions to establish new forms of collaboration that could provide an opportunity for major improvements in access and learning as they met legitimate concerns regarding cost and quality, a statement shared by other scholars (Epper & Garn, 2003; Gladieux & Swail, 1999; Moore, 2003).

The concept of the Virtual University suits the interests of higher education institutions and states. From the market perspective, entrepreneurial interests motivated institutions to position themselves for what many expect to be a fast-growing, competitive market for college degrees and vocational certificates offered via the internet. Failing to stake a claim in the world of online education could result in losing students to for-profit organizations, like the University of Phoenix Online, which were already ahead of traditional institutions in the online education market (Deloughry, 1995). From a cost-efficiency perspective, putting resources in a consortial virtual university made sense financially, especially with the benefits of a systems approach, with division of labor, integration of technologies, and economic scale (Moore, 2003).

State governments welcomed the virtual university vision as well. As the principal providers of higher education services in the United States, they were concerned with providing greater access to postsecondary education opportunities at a lower cost. As a result, they looked to the new technologies as an instrument of expanding access without incurring additional cost and they saw the innovative virtual universities as opportunities to explore, develop, and influence policy innovation outside of the traditional structures (Epper, 1997). It is within the context of broadening access, controlling cost, and exerting policy influence that state-level virtual universities took shape in almost every state.

In 1997, California Virtual University (CVU) was first set up as an alternative to joining Western Governors University (WGU). Although CVU was terminated only two years later due

to lack of commitment from the state (Thompson, 2000), this initiative was replicated in other states and heralded the rise of state-level virtual universities throughout the U.S. (What Is the Electronic Campus, 2005).

A similar initiative, the cross-state distance education consortium known as Southern Regional Electronic Campus (SREC) was launched in January 1998 as an "electronic marketplace" of online courses and programs from the South's colleges and universities (What Is the Electronic Campus, 2005). Unlike WGU, SREB was created quietly, and still has not received the kind of public attention showered on WGU. Its "campus" has not attempted to reshape academe or to compete with anyone, but rather, to give students easy access to online courses offered by participating colleges. WGU and the Southern Regional Education Board's efforts are at opposite ends of the partnership spectrum. WGU is organized as something similar to a free-standing university, one originally intended to bring together, under a single academic banner, courses created by a variety of member institutions. In comparison, the SREB effort is a loose collective that started out providing members little more than a common website on which to market online offerings (Moore, 2003).

States and colleges seem to be picking up on SREB's approach. As other institutions contemplate creating new partnerships, the SREB's comparatively simple model appears to be the more widely adopted. WGU's approach, more revolutionary and less certain of success, has attracted many onlookers but few imitators. Many of the new collaborations being announced these days are decentralized, leaving control over academics to individual colleges (Carnevale, 2000).

In 1988, the National Governors Association report noted that "distance learning initiatives and expansions were reported by 37 states" (p. 23). Ten states reported they were

operating a statewide or regional distance education network, and 14 were planning one (National Governors Association, 1988). Seven years later, at least 15 states were engaged in planning for or implementing a new or better-coordinated statewide distance education system (Zeller, 1995). By 1997, several state-level virtual universities were in existence, including Educational Network of Maine, SUNY Learning Network, Kentucky Virtual University, and Colorado Electronic Community College. Two years later, 33 states had created virtual university initiatives (Epper, 1999). The 2001-2 Almanac of the Chronicle of Higher Education reported 45 state-level virtual universities in 38 states.² In 2002, the number increased to 61 state-level virtual universities in 45 states (Epper & Garn, 2003). At the time of this study, a total of 75 state or system-wide virtual university initiatives were identified in 47 states (See APPENDIX A). Although not all call their efforts virtual university, they stand for “new ways for institutions to work together,” according to Sally Johnstone, the founding director of WCET (Young, 2000a, A51).

Specifically, the following institutions stand out as the pioneering state-level virtual universities, including California Virtual University, Michigan Virtual University, and Kentucky Virtual University.

Many virtual universities are little more than online catalogues of courses and programs offered by other institutions. A salient example is the California Virtual University, which then-governor Pete Wilson announced in 1997 with considerable fanfare as a rival to WGU. It was the first state effort of its kind in the United States, and was much emulated by other states in the

² Based on the governance models of each state, there may be more than one coordinating or governing board in a state. For example, in the state of Georgia there are two boards: Department of Technical and Adult Education consisting of technical colleges, and the University System of Georgia consisting of 34 two- and four-year public institutions. Correspondingly, each sector had its own virtual university, respectively, Georgia Virtual Technical College and the electronic Core Curriculum (eCore).

following years. However, the venture existed only eight months before it was closed for various reasons (Dutton & Loader, 2002). It was later taken over by the California Community College System and renamed California Virtual Campus. It now maintains a course catalogue of more than 5,000 distance courses offered by accredited institutions in California and provides training, course hosting and other resources for faculty and staff developing online courses (California Virtual Campus website).

Unlike other state-level virtual universities, Michigan Virtual University (MVU) is a private, not-for-profit Michigan corporation. Established in 1998, MVU was founded by the State of Michigan based on the prototype of the Michigan Virtual Automotive College. The primary motivation for creating MVU was to support the state's economic development by providing convenient and cost-effective education and training to Michigan's current and future workforce. For nearly six years, MVU was the leading proponent of e-learning in both the commercial and education fields. Over the summer of 2004, MVU decided to dedicate its resources to serving the K-12 education community exclusively. Reportedly two factors caused the focus shift: a reduction of state funds entailed to narrow the focus, and higher education institutions developed their own capacity for online education and thus ensued declining demand for services (Carnevale, 2004b).

Kentucky was the first state in the United States to offer its residents a comprehensive package of online education resources: a virtual university, a virtual high school, and a virtual library. Kentucky Virtual University (KYVU), created with the Kentucky Postsecondary Education Improvement Act of 1997, was expected to play a critical role in developing a postsecondary education system that was accessible, efficient, and responsive to the needs of Kentucky's citizens and economic stakeholders. As one of the first state-level virtual universities,

KYVU was in the center of media attention in the late 1990s and was known for the generous state support and large student enrollments. However, it inevitably encountered the same challenges for the virtual university sector, such as declining funding from the state, and dwindling participation on the part of colleges and universities. In response to the changes, it conducted strategic planning in 2006 to restructure the organization.

Classifications of Virtual University

From the very beginning, *Virtual University* was a difficult concept to define, and the definition initially agreed upon is admittedly broad (Farrell, 1999). Was it an entirely new organizational model, a tweaking of the existing one, or a hybrid one? As states founded virtual universities, it became clear that a wide array of universities of different types operate under this generic term (Guri-rosenblit, 2001). Some scholars tend to explicitly regard virtual universities as internet-based university courses or programs (Dixon, 1996; Schank, 2002; Stallings, 2002), while others implicitly limit virtual universities to internet-based institutions or consortia at various levels (institutional, state, or regional) (Carcjodo, 2003).

The label “virtual” is widely and indiscriminately used around the world. Indeed, it is frequently used interchangeably with other labels such as open and distance learning, distributed learning, networked learning, web-based learning, and computer learning (Farrell, 1999). For example, Wolf and Johnstone (1999) simply clarified the definition of a virtual university/college as “academic degree granting with no campus” (p. 2).

The term “state-level virtual universities” is equally ambiguous. As Dr. Cathy Gunn (2000), the director of the Indiana Virtual Campus noted in an article in *Technology Source*, “comparing statewide virtual universities is risky because each is based on a different ideology and organizational structure” (p.1). Epper and Gran (2003) broadly defined the term as “distance

learning consortia that comprise membership of the public higher educations (two year and/or four year) within a single system or state”, and some researchers have created different classifications for state-level virtual universities. The typologies below help both scholars and practitioners to better understand the virtual university phenomenon.

Noticing the variety of the emerging distance education consortia, Smith (1998) categorizes distance education consortia according to three levels of institutional integration: the course broker, the collaborator, and the wholesale purchaser. The *Course Broker Model* refers to consortia that list course offerings from member institutions, yet they do not offer degrees. Its member institutions may share the cost of operating the collaborative, but they typically do not share revenues. Examples of this model are the Southern Regional Electronic Campus, and Iowa Communications Network. The *Collaborator Model* takes a further step in that its consortia have curricular, budgetary, and administrative structures that allow for the sharing of course, cost, and revenues. A case in point is Colorado Community College Online. The *Wholesale Purchase Model* represents the deepest level of integration. Such consortia “purchase” courses from its member institutions, assemble them into a degree program, and “resell” the courses and degrees to the distance education students. Currently most of the state-level virtual universities in America still serve as course brokers by means of electronically linking courses and programs from various institutions, and only a few have established themselves as cost/revenue-sharing entities, such as Kentucky Virtual University and the Connecticut Distance Learning Consortium. None of them, however, has achieved the level of collaboration as represented by the *Wholesale Purchase Model*.

A more notable classification was developed by Wolf and Johnstone (1999) in *Change* magazine to “clean up the language of electronically delivered academic programs” (p. 1).

According to their taxonomy, depending on institutional settings and distance learning methods, a virtual university may fall into one of six categories, three of which apply to state-level virtual universities: (1) *Virtual University Consortium*: no degree granting, centralized or coordinated student services, academic articulation, e.g., Kentucky Virtual University; (2) *Academic Services Consortium*: no degree granting, limited services, little or no articulation, e.g., Ohio Learning Network; (3) *University Information Consortium*: no degree granting, electronic course catalog, no coordinated student services, no articulation, e.g., Oregon Network for Education. Currently, most of the state-level virtual universities fall into the category of *University Information Consortium*, but some are already providing centralized services to participating institutions, and some have even built articulation among consortia members.

Based on a national survey, Epper and Garn (2003) proposed a new taxonomy exclusively focusing on state-level virtual universities, building upon the Virtual University taxonomy created by Wolf and Johnstone (1999). The new model has two dimensions: the degree to which the student services are centralized and the degree to which the virtual university is implementing business practices. This results in four consortial virtual university organizational types: distributed agency model, distributed enterprise model, central agency model, and central enterprise model (See Table 2.1). A national survey by Epper and Gran (2003) revealed that about 60 percent of state-level virtual universities provided centralized student services, and only 30 percent were behaving as a business enterprise by building revenue streams for self-sustainability and engaging in quality control performance, measurement, standardization, and/or benchmarking.

Table 2.1

Virtual University Two-Dimensional Taxonomy

Model (Percentage)	Low Business Practice (70%)	High Business Practice (30%)
High Centralization (59%)	<p><i>Central Agency Model</i> (39%)</p> <p>Provides central student services and academic articulation. Organizationally and financially embedded in an academic agency, such as a system officer or coordinating board.</p> <p>Example: <i>Kentucky Virtual University</i></p>	<p><i>Central Enterprise Model</i> (20%)</p> <p>Provides central student services and academic articulation. May be organizationally embedded in an academic agency, but behaves as a business enterprise by building revenue streams for self-sustainability and engaging in quality control performance, measurement, standardization, and/or benchmarking.</p> <p>Example: <i>UT TeleCampus</i></p>
	<p><i>Distributed Agency Model</i> (31%)</p> <p>Provides electronic course catalog; little or no services; no articulation. Organizationally and financially embedded in an academic agency, such as a system officer or coordinating board.</p> <p>Example: <i>Oregon Network of Education</i></p>	<p><i>Distributed Enterprise Model</i> (10%)</p> <p>Provides electronic course catalog; little or no services; no articulation. May be organizationally embedded in an academic agency, but engages in limited business practices, such as quality control, performance measurement, standardization, and/or benchmarking.</p> <p>Example: <i>Louisiana Board of Regents Electronic Campus</i></p>

Note. Based on revisions of Table 22 in Epper & Garn (2003), p. 55.

A Profile of State-level Virtual Universities from a National Perspective

Several studies and reports revealed that state-level virtual universities differ greatly by size, participating institutions, governance, organizations, functions, financial viability,

operational practices, degree of technology integration, and degree of success (Epper & Garn, 2003; Twigg, 2003). For example, online enrollments in these virtual universities ranged from barely three hundred to over forty thousand (Epper & Garn, 2003). In terms of participating institutions, a majority of the virtual universities involve only public institutions, such as the Educational Network of Maine, the State University of New York (SUNY) Learning Network, UmassOnline, and the University of Texas TeleCampus. In some states, the consortia consist of both public and private institutions, such as the Illinois Virtual Campus, Kentucky Virtual University, Michigan Virtual University, and the Ohio Learning Networks. Most consist of both two-year and four-year institutions, while some consist of exclusively two-year institutions (e.g., Colorado Community Colleges Online) or four-year institutions (UT TeleCampus). Some institutions are well funded by the state legislature (e.g., Kentucky Virtual University), some are entirely self-sustaining (e.g., Colorado Community Colleges Online), and some are on their way to being self-sustaining (e.g., Connecticut Distance Learning Consortium).

State-level virtual universities also have different functions. For some virtual universities, the primary function is as a referral site; others also provide online services to participating institutions such as infrastructure, and student and faculty services. According to a survey conducted by Oregon University System, overall, about 70 percent of the surveyed state-level virtual universities were offering online student services in 2000. Less than 50 percent offered services to online faculty, with the most commonly occurring faculty services being pedagogy and training opportunities. In contrast, the virtual universities had a weaker role in policy, as only 37 percent of the virtual organizations surveyed were providing information about distance education policies pertinent to their consortia and/or state (Zanville & Morihara, 2001).

Despite the diversity, these virtual universities have much in common. Except for Michigan Virtual University, all the state-level virtual universities are public institutions. Each of them primarily offers online courses, possibly together with courses delivered via other media. Most notable is that none of these state-level virtual universities is a “real” university in the sense of granting degrees. Without exception, each virtual university has adopted the consortial approach, and each operates a portal with participating institutions, courses, and degree programs that are offered at a distance. Consortia have become popular ways for many universities to collaborate, thus reducing the cost of technology acquisition and use and sharing the development of relatively expensive support systems such as marketing, student services, and in some cases, courses and curricula (Hanna, 2000).

Another similarity is that the state-level virtual universities unanimously adopted consortial approach. In reviewing the history of distance education, Moore (2003) noticed the collaborative, voluntary partnerships between public and private universities. Compared with the Open University model, this system favors the systematic approach to design and delivery of education, yet without establishing such permanent institutions. Moore described this emerging model as (p. 40):

A network of individuals and services that were linked together to provide the kind of services previously delivered by dedicated institutions.... Such a system has only a small permanent administration, consisting of specialists in design, technology, and learner support, whose responsibility is to commission, on a contractual basis, the mixture of personnel and other resources needed for each particular project

The advantages of the consortial approach are apparent. Collaborations or strategic partnerships that bring together two or more universities have the potential for increasing the

competitive positions of existing institutions. In a growing number of cases, university/business strategic alliances are being launched to build organizational capacity to deliver new services and programs and to reach new audiences. These new collaborations have many different forms, and they involve blending organizational missions, goals, programs, capabilities, and personnel to reach new learning strategies and opportunities (Johnson, Hanna, & Olcott, 2003). Kaufman (1991) stated that alliances were especially effective in times of complexity and competition in at least three ways: spreading risk, incorporating new ideas, and helping “the organization bypass cultural prohibition against previously heretical ideas or practices” (p. 25).

Differing views exist concerning the role of private partnership in the success of virtual universities. Rosevear (1999) addressed the importance of private partnership in a virtual university through examining the Michigan Virtual University, which consisted of eight organizations from higher education, industry and state government. Their conclusion is that the implications of inter-institutional alliances and cooperation were critical to the success of virtual universities, and that virtual universities need to develop partnerships with the private sector in order to meet the needs of the community and the industries that the virtual universities serve. Other researchers, however, expressed reservations about the role of partnerships with the private sector. For example, McCoy (2002) identified the partnerships with the private sector as a factor that caused the dissolution of the now-defunct California Virtual University and warned that public virtual universities would be better off seeking state commitment and should seek private partnerships with caution.

The collaborative nature of consortia determines their unique challenges. Based on the experience of the Online Consortium of Independent Colleges and Universities (OCICU), a regional distance education consortium, the biggest challenges for a distance education

consortium revolve around academic and administrative issues. Strict adherence to academic guidelines and approval process proved crucial for participating institutions to accept online courses and faculty as their own. Faculty at participating institutions need to be involved in decisions concerning the consortium to alleviate fears that students would choose consortium courses that competed with the member schools' courses. Another challenge concerns technology-related issues and the administrative procedures of each institution. Provider institutions used a variety of course management platforms, resulting in the potential for students at participating schools to be unfamiliar with the platform for a given course. Communication and collaboration are vital to ensuring high-quality service to OCICU member schools (Kennedy, 2006).

Policy Frameworks of State-level Virtual Universities

A policy analysis framework can provide guidance in looking at policy structures and identifying essential policy areas, activities, and processes that may be fundamental to the operation of a system or institution (Heck, 2004). To this end, various frameworks have been developed to analyze policies and structures concerning virtual universities.

For example, Kovel-Jarboe (1997) identified clusters of policies where institutional and state responsibilities interact, such as quality, student support, human and financial resources, governance, mission, programs, and infrastructure. Although Kovel-Jarboe was concerned with distance education programs at individual institutions, it seems apparent that virtual colleges and universities, as vehicles for collaboration, were designed in part to help solve issues at this very delicate interaction between institutions and states.

In 1998, when some virtual universities were still in their early development stage, Berg examined the policy differences between Western Governors University and the California

Virtual University using seven constructs. The study concluded that in the future public policy in relation to distance learning needed to address the key issues of credit, transferability, financial aid, and interstate enrollment policies.

To help decision makers look at the policy arena of distance education, Gellman-Danley and Fetzner (1998) proposed a policy analysis model consisting of seven key areas: academic, fiscal, geographic, governance, labor-management, legal, and student support services. Berge (1998) modified this model by adding two more areas: technical and cultural. Building on the two previous studies, King, Nugent, Russell, Eich, and Lacy (2000) synthesized these policy areas into a policy analysis framework (See Table 2.5) that includes three tiers (e.g., faculty, students, and management and organization). McCoy and Sorensen (2003) synthesized these perspectives into a new policy analysis framework, consisting of academic policy, access to education, funding/fiscal policy, governance/administration, private industry, and student services.

Failure and Sustainability of Virtual Universities

Virtual universities started operating a decade ago. However, many were not sustainable. This section reviews the failure of some of the most discussed virtual universities in America and Britain and addresses the sustainability issue.

The California Virtual University (CVU) announced its dissolution with the same media fanfare that accompanied its establishment by the former governor in 1997. The first of its kind in the United States, CVU's short existence—eight months, specifically—triggered speculations as to what had caused its failure. Some blamed the lack of state commitment for the collapse, and suggested that differences between hard money (state revenue supported) and soft money (corporate and foundation supported) may have provided unique challenges to the CVU (McCoy

& Sorenson, 2003). Others attributed the failure to the different interests of the key partners (Downes, 1999). Stanley A. Chodorow, former CEO of CVU, pointed out that two things led to the demise of the university: lack of an adequate financial structure in the original business plan, and resistance to collaboration among higher education institutions (Young, 2000b).

Attracted by the huge potential market in America, in 1999, the UK Open University established the United States Open University (USOU), its branch campus in America. However, after having spent \$20 million in barely three years, the university was unwilling to continue covering the losses of its American offspring. Arnone (2002) claimed that insufficient revenues and inadequate enrollments due to lack of regional accreditation were the main reasons for the termination of the US Open University. Kirp (2003), however, argued that lack of accreditation, too much of “Queen and cricket,” professors’ opposition to “not made here” distance courses and the missing personal element all helped to explain the failure of the U.S. OU. Krenelka (2005) and Meyer (2003) added that the problematic business plan, lack of brand recognition, and loss of an important advocate from the parent institution also contributed to the closure of US OU.

Jonstone (2007) analyzed the factors contributing to the failure of the UK’s eUniversities Worldwide (UK eU). The project was launched in 2000 with the idea that traditional universities could share marketing and technological resources to reach worldwide audiences with distance learning services. By April 2004, however, the board of the Higher Education Funding Council for England announced that it was pulling the project funding. The failure of this alliance was explained by the bad timing (e.g., emerging at the same time as the dot-com bust); its founding as a reaction to what universities in other countries were already doing, rather than being based on any empirically supported estimate of worldwide need or interest in online courses from English universities; making the very expensive decision to create its own course management

system instead of working with one that was available to buy or lease; and a business model that had expected much faster results than were possible.

Carnevale (2004c) reported several reasons for virtual university failures, including: low enrollment, minimal private funding secured to support the new ventures, large initial investments, using traditional college faculty with little experience in teaching in an online setting, poor business plans, and large investments in infrastructure and platforms that may not have been needed.

Can virtual universities innovate fast enough to stay ahead of the innovations that are occurring on individual campuses? How far can state-level virtual universities go? These are issues that were brought up in a symposium of 13 Virtual University leaders (Trigg, 2003). Trigg (2003) made the observation that “virtual universities that are entrepreneurial and keep their eyes on the ball—delivering programs that students need—have the best chance of success in meeting statewide goals”(p. 20). Similar opinions were made by Stallings (2000), who pointed out that “schools can get into trouble if they are not serious about the commitment, if they are too slow to move, if they aren’t flexible, or they fail to be entrepreneurial” (p. 5).

McCoy and Sorensen (2003) examined the policy documents of six public virtual universities. Their findings suggested that three themes prove fundamental to the operation of a public virtual university, respectively, a central focus on access to education, a commitment to providing integrated faculty resources, and maintaining comprehensive student services.

Kirp (2003) attributed the success of UK Open University (OU) to the following factors. First, using the British Broadcasting Corporation (BBC) as a broadcast channel provides invaluable promotion through the airing of the OU’s material. Second, printed texts did not challenge conventional ideas about teaching quality in the same way as television-led learning

did, and their successful use cautioned against precipitate enthusiasm for new technologies. Third, strong, consistent government sponsorship has been critical to the OU's success. Fourth, the co-option of part-time tutors from higher education institutions has contributed positively to the OU's image, establishing a basis of collaboration rather than competition with other universities. Fifth, OU's Rolls Royce model of course development may have over-compensated to convince a skeptical public that distance education was not a third-class education for the poor. And last, the insistence that faculty and staff must undertake research has emphasized OU's commitment to scholarship and undermined attempts to dismiss it as inferior.

A committee from the Southern Regional Electronic Campus (2001) emphasized the role of the states in ensuring the success of virtual universities and made the following recommendations. First of all, establishing system-wide guidelines and procedures for revenue-sharing is the first step to promoting collaboration. Current policies favor the credit-grantor and discriminate against those partners who provide important instructional and student support services to the distance learners. Second, state or system financing policy should promote and provide incentives for multi-institutional collaborative programs including cost and revenue-sharing. Third, to gain economy-of-scale, states, systems and voluntary consortia should pursue centralized services spanning multiple institutions. Fourth, states and institutions should provide institutions with the flexibility to make pricing decisions based on a business plan that reflects purpose, market, and knowledge of cost implications. And last, states and institutions require good information on technology-related costs for decision-making and must establish appropriate means for collecting and comparing this information.

Virtual Universities from a National Perspective

Despite discussions and descriptive studies on individual virtual universities, there had

been lack of a comprehensive national study with a solid foundation of data. This void was filled in 2003 with the completion of two studies, both of which bore significantly on the development of this project. Both studies attempted to address the question “whether virtual universities are meeting their goals for which they are designed,” but used different approaches.

In July 2002, Carol Twigg from the Center for Academic Transformation convened thirteen chief executives from various virtual universities to discuss issues related to the intersection of learning technologies. The outcome of the symposium, a monograph by Twigg (2003), provided great insights into the roles, policy issues, and the future of virtual universities in the United States. Specifically, this study examined the collaborative model currently adopted by the virtual universities, and revealed that, although virtual universities that rely on an institutional collaborative model may do a good job of supporting institutions as they move to online learning, it was questionable how effective they were at meeting statewide goals; in other words, although state-level virtual universities were providing support to higher education institutions, they were playing a limited role in creating new online programs and expanding access for new students.

Based on the discussions at the symposium, Twigg (2003, p. 9) identified the elements of success in meeting statewide goals:

“(a) keep the focus on increasing access for new students (rather than on supporting institutions), (b) find out what students and states need, and create a mechanism to respond (rather than aggregating what institutions have to offer), (c) leave the resolution of long-standing higher education policies to state policy makers (rather than trying to solve them in the virtual university), (d) create a business plan for self-supporting sustainability (rather than relying on state allocations), and (e) use a cost-effective

development and delivery model (rather than a bolt-on model).”

The theme running through each of these recommendations is the rejection of the collaborative model in favor of a more-focused, more-learner-centered, and more-entrepreneurial approach. The new model not only goes further to increase access by enrolling students new to higher education enterprises but also points the way to a clear and certain sustainable future.

Concerned with the question “whether virtual universities are meeting their goals,” Epper and Garn (2003), with the joint sponsorship of the State Higher Education Executives Officers (SHEEO) and the Western Cooperative for Educational Telecommunications (WCET), undertook a national study to examine the goals, functions, challenges, and outcomes of state-level virtual universities across the United States. The project identified 61 statewide virtual universities, and 51 of them participated in the survey. Surveys and interviews with consortia leaders were conducted to understand the landscape of these state collaboratives from a national perspective, and examined the issues and changes within this innovation.

The study by Epper & Garn (2003) confirmed that these consortia tended to be either centralized, providing both administrative and academic services to students; or a distributed service model, hosting an online catalog, with each participating institution offering most of the services on its own. The study also revealed the shift of current goals from broadening access to increasing state/system higher education efficiency and meeting state workforce needs. In terms of financial sources, most of these consortia were initiated with direct or indirect appropriations from the state, and continued to rely heavily on this funding source for operations. Yet as state allocations decreased and tuition and service fees increased over time, some consortia started to build sustainable revenue streams. Furthermore, a virtual university’s funding level is related to its impact on policy change; specifically, a well-funded virtual university is likely to report

greater policy change in tuition, program duplication, articulation, and transfer (Epper & Garn, 2003).

Bolman and Deal's Organizational Framework

Hanna & Associates (2000) describes how virtual universities lie on the periphery of the traditional universities and distinguishes themselves from traditional universities in philosophy, mission, funding, curriculum, instruction, students, faculty, library, learning technology, and physical facilities. Specifically, a virtual university has its campus going to students instead of the other way around; its mission is externally focused, not only on degree completion but on workforce development; financially, it is more self-sustaining and market-driven than the regular funding formula of \$ per full-time student; accordingly, its curricula are more flexible and include more content for workforce competence and development; it makes greater use of adjuncts with professional experiences and emphasizes a greater variety of instructional methods; it values and draws upon students' experience more than a traditional university does; and it is still campus-based but less reliant on physical plants. The two type of universities do have things in common: student credit-hours and degrees are productivity outcomes, the board of trustees comprises governs the university, and institutions need to maintain their regional accreditation.

Bolman and Deal's organizational frames (1997) are a widely recognized theory for explaining colleges and universities. Considering the similarities and differences between virtual universities and traditional universities, it is reasonable to justify this theory as a helpful device for exploring selected virtual universities in this study. The concept of organization frames by Bolman and Deal advocates using multiple lenses to look at complicated organizations as to what is working, what is not, and why it is so. Bolman and Deal identifies four organizational frames,

respectively, structure, human resource, political, and symbolic. Each of the four frames has its own image of reality; combined, they help to capture the subtlety and complexity of organizational life.

Specifically, the structural frame emphasizes goals, specialized roles, and formal relationships. Structures—commonly depicted by organization charts—“are designed to fit an organization’s environment. Organizations allocate responsibilities to participants and create rules, policies, procedures, and hierarchies to coordinate diverse activities. Problems arise when the structure does not fit the situation. At that point, some form of reorganization is needed to remedy the mismatch” (Bolman & Deal, 1997, p. 15). The human resource frame sees an organization as much like an extended family, inhabited by individuals who have needs, feelings, prejudices, skills, and limitations. They have a great capacity to learn and to defend old attitudes and beliefs. From a human resource perspective, the key challenge is to tailor organizations to people—to find a way for individuals to get the job done while feeling good about what they are doing. The political frame sees organizations as arenas, contests, or jungles. Different interests compete for power and scarce resources. Conflict is rampant because of enduring differences in needs, perspectives, and lifestyles among various individuals and groups. Problems arise when power is concentrated in the wrong places or is so broadly dispersed that nothing gets done. The symbolic frame sees organizations

as cultures, propelled more by rituals, ceremonies, stories, heroes, and myths than by rules, policies, and managerial authority. Organization is also theatre: actors play their roles in the organizational drama while audiences form impressions from what they see onstage. Problems arise when actors play their parts badly, when symbols lose their

meaning, when ceremonies and rituals lose their potency. We rebuild the expressive or spiritual side of organizations through the use of symbol, myth, and magic (p. 14-15).

Conclusion

Although virtual universities have bypassed some of the traditional decision-making processes due to their lack of a brick-and-mortar mindset, they have encountered problems. Epper and Garn (2003) identified the most common barriers faced by the virtual universities as inadequate funding and staffing, lack of collaboration among institutions, fear of competition among institutions, and lack of understanding of the virtual university by leaders at high levels in institutions and states. They suggested that in establishing or improving virtual universities, policy-makers pay more attention to the following areas: (1) set clear expectations for the virtual university in accordance to the organizational type and funding level; (2) develop common definitions for distance education enrollment to assess the impact of the virtual universities on expanding access; (3) clearly define the virtual university's role in statewide or system-wide policy change; (4) encourage the virtual universities to benchmark against their peers to hold the virtual universities accountable for measuring progress toward their goals; and (5) encourage sustainable business practices by taking more aggressive roles in collaborative program development, quality assurance, standardization, and scalability.

CHAPTER THREE

METHODOLOGY

The purpose of this study was to understand the consortial approach to distance education at the state level with a focus on examining the organizational aspects that influenced the state-level virtual university's ability to achieve its mission. Using Bolman and Deal's organizational frames theory (1997), this study attempted to address the following research questions:

1. What organizational and governance structures are in place to support the missions of the virtual universities?
2. What strategies do the virtual universities use to engage and serve higher education institutions and targeted audience?
3. What factors have the potential to cause conflicts within the virtual universities?
4. How are distance education consortia effectively developed and sustained?

The nature of these questions made qualitative research a logical choice for the type of data to be explored in this study (Merriam, 1988; Yin, 1994). To gain a holistic picture of the organizational aspects of the virtual universities, this study employed a multiple-case study research design, focusing on three state-level virtual universities, Kentucky Virtual University, Ohio Learning Network, and UT TeleCampus. Qualitative data were collected from each case primarily through semi-structured interviews and document analyses.

Case Study Research Approach

Case study is a widely used research design in many disciplines, education included, yet there is little agreement on what constitutes case study research. Some regard case study not as a

formal research strategy, but as the early exploratory stage of some other types of research strategy. Others tend to confuse case studies with ethnographic studies (Fetterman, 1989) or with participant observation (Jorgensen, 1989). Merriam (1988), however, defined case study “as a research design in its own right” (p. 5), one that is similar to survey research and historical research. She went on to present the characteristics of case study research: (1) Particularistic, in the sense that a bounded system can be identified as the focus of the investigation, whether it be a specific situation, event, program, person, or phenomenon; (2) descriptive, which requires that the end product is a rich, holistic description of the phenomenon under investigation; (3) heuristic, which means that case study research is problem-based, discovers new meaning, and illuminates people’s understanding of a phenomenon; and (4) inductive, which suggests that case study research employs inductive reasoning to discover new relationships, concepts and understandings, as opposed to verifying hypotheses, as is common in experimental studies.

Yin (1994) identified three conditions for using case study design rather than other strategies such as experiments, surveys, archival analysis, or historical research: the type of research questions posed, the extent of control an investigator has over actual behavioral events, and the degree of focus on contemporary as opposed to historical events. Specifically, case study is best in addressing exploratory questions such as “how” and “why,” and “is preferred in examining contemporary events, but only when the relevant behaviors cannot be manipulated” (p. 8). Moreover, case studies are “instructional in the early years of policy development and implementation” (Walin, 1997, p. 11), which makes it a method of choice for studying interventions or innovations (Lancy, 1993). As this study focuses on distance education innovations at the state level, and it was primarily concerned with “what the innovative

organizations are like” and “how they have become what they are”, case study was a natural approach for this research project.

Variations exist within case studies as a formal research design or strategy. Yin (1994, p.5) classified case studies into three similar forms, which he labeled “exploratory,” “descriptive,” and “explanatory”:

An exploratory case study...is aimed at defining the questions and hypotheses of a subsequent (not necessarily case) study...A descriptive case study presents a complete description of a phenomenon within its context. An explanatory case study presents data bearing on cause-effect relationships-explaining which causes produced which effects.

Based on this categorization, this study was designed as a descriptive case study in order to paint a picture of the organizational life of three virtual universities using four organizational frames and to tell the stories with the words of the insiders. The three main players include state higher education board, staff of virtual universities, and participating colleges and universities.

Qualitative Research Paradigm

As a research design, case study is not strictly a qualitative research method (Roger, Hammersley, & Foster, 2000; van Maanen, 1988; Yin, 1994), even though it is generally associated with an interpretivist or phenomenological approach. In other words, case study “is not a methodological choice but a choice of what is to be studied” (Patton, 2000, p. 447). Based on the methodology, a case study could be qualitative (through interviewing, observation, or document review) or quantitative (through survey research or other experimental methods). This case study employed a qualitative research paradigm in collecting and analyzing data to explore three cases in depth.

Qualitative research “is an inquiry process of understanding based on distinct methodological traditions of inquiry that explores a social or human problem” (Creswell, 1998, p. 15). The purpose is to “obtain rich data to build theory that describes a setting or explains a phenomenon” (Rubin & Rubin, 1995, p. 56). In comparison to quantitative inquiry, which facilitates comparison and statistical aggregations of data, qualitative inquiry facilitates study of issues in detail (Patton, 2002).

Qualitative findings usually grow out of three kinds of data collection: in-depth, open-ended interviews; direct observation; and written documents (Patton, 2002). Some research also utilizes audio-visual materials (Creswell, 1998). Specifically, interviews generate direction quotations from the interviewees about their experiences, opinions, feelings, and knowledge. According to Patton (2002, p. 342), there are three basic approaches to collecting qualitative data through open-ended interviews: (a) The informal conversational interview, which “relies entirely on spontaneous generation of questions in the natural flow of an interaction, often as part of ongoing participant observation fieldwork”; (b) the general interview guide approach, which “involves outlining a set of issues that are to be explored with each respondent prior to the interviews”; and (c) standardized open-ended interview, which “consists of a set of questions carefully worded and arranged with the intention of taking each respondent through the same sequence and asking each respondent the same questions with essentially the same words.” This research used the general interview guide approach and it was guided by a list of questions or issues to explore during each interview.

Document analysis includes studying written documents related to the phenomenon under study (Patton, 2002). Documentary data “can furnish descriptive information, verify emerging hypotheses, advance new categories, offer historical understanding, track change and

development, and so on” (Merriam, 1988, p. 109). Moreover, documentary data are instrumental in grounding a researcher in the context of the problems investigated (Merriam, 1988). In this study, document analysis was conducted to provide contextual and historical background for the three cases, which was instrumental in understanding data collected through interviewing.

The data from observations consist of detailed descriptions of people’s activities, behaviors, actions, and the full range of interpersonal interactions and organizational processes that are part of observable human experiences (Patton, 2002).

As noted above, qualitative inquiry usually utilizes more than a single method or technique. Each type and source of data has strengths and weaknesses. Interview data are subject to personal bias, recall error, reactivity of the interviewee to the interviewer, and self-serving responses. Observations are limited in focusing on only external behaviors and the possibility that the observer may affect the situation under observation in unknown ways. Documents and records may be incomplete or inaccurate. Taking into consideration the limitations of each data source, using a variety of sources and resources is instrumental in bringing together multiple perspectives and increasing validity, as the strengths of one approach can compensate for the weaknesses of another approach (Patton, 2002).

The Role of the Researcher

Validity in quantitative research depends on careful instrument construction to ensure that the instrument—survey, the test items, or other measurement tools—measures what is supposed to measure (Patton, 2000). In qualitative research, however, the researcher as the data collector is the sole instrument. The researcher “builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting” (Creswell 1998, p. 15). Lincoln and Guba (1985) identified the characteristics that made humans

the "instrument of choice" for naturalistic inquiry. Humans are responsive to environmental cues and able to interact with the situation; they have the ability to collect information at multiple levels simultaneously; they are able to perceive situations holistically; they are able to process data as soon as they become available; they can provide immediate feedback and request verification of data; and they can explore atypical or unexpected responses.

To conduct qualitative research, the researcher must develop the level of skills appropriate for a human instrument, or the vehicle through which data are collected and interpreted, or what Glaser and Strauss (1967) and Strauss and Corbin (1990) called the "theoretical sensitivity" of the researcher. This is a useful concept with which to evaluate a researcher's skills and readiness to attempt a qualitative inquiry. According to Strauss and Corbin, 1990, p. 42),

Theoretical sensitivity refers to a personal quality of the researcher. It indicates an awareness of the subtleties of meaning of data... [It] refers to the attribute of having insight, the ability to give meaning to data, the capacity to understand, and capability to separate the pertinent from what is not.

Prior to conducting this research project, I accumulated expertise and knowledge of distance education in general through working on three research projects on online course development and delivery, using data from the eCore[®] program. eCore[®] is an electronic core curriculum that may lead to the completion of the first two years' undergraduate education at a distance in the University System of Georgia. Through these projects, I gained to some extent an insider's perspective concerning the planning, development, delivery, and evaluation of online courses at the postsecondary level. In addition, I became aware of the politics and challenges involved in building and maintaining high quality online education within a university system.

Beyond the knowledge of distance learning in postsecondary education, I also developed the research skills necessary to design and conduct this research. Prior to conducting this dissertation, I received rigorous training in qualitative research, and conducted interviews with faculty and administrators affiliated with the eCore[®] program. My training and practice in qualitative research methodology combined to prepare me to complete this research.

Case Selection

Case studies can include either a single case or multiple (or collective) cases. In a single case study, one often samples from sub-units within the case in collecting data. Collective or multiple case studies involve collecting and analyzing data from several cases. The inclusive multiple cases can “strengthen the precision, the validity, and the stability of the findings” (Miles & Huberman, 1994, p. 14), thereby increasing the potential for generalizing beyond the particular case.

To gain in-depth information and increase the potential for generalization, this study employed a multiple case study design for cross-case comparisons (Burgess, Pole, Evans, & Priestley, 1994) using purposive sampling (Creswell, 1998; Merriam, 1988; Patton, 2000). Purposive sampling is based on the assumption that “one wants to discover, understand, gain insights; therefore one needs to select a sample from which one can learn the most” (Merriam, 1988, p. 48). Strategies for purposive sampling include choosing samples that are extreme, deviant, typical, critical, politically important, sensitive, convenient, or those that maximize variation (Patton, 2002). In this study three cases were selected, using a combination of two sampling strategies, i.e., criterion sampling and maximum variation sampling, as explained below.

An overview of the state- and system-wide consortia of online education across the 50 states revealed that only three states (e.g., Alaska, Delaware, and New Mexico) did not have any distance education collaborative efforts at the state or system level. As mentioned in Chapter 2, Epper & Garn (2003) proposed an organizational taxonomy that represents the structures and behaviors of current virtual universities; accordingly, each state-level virtual university falls into one of the four organizational models: the central agency model, central enterprise model, distributed agency model, or distributed enterprise model. Central virtual universities are characterized by high centralization and reportedly more likely to achieve success at meeting their goals (Epper & Garn, 2003). Therefore, as this study was particularly interested in exemplary virtual universities that were relatively long-lived and well-operated, it was logical to choose only from Central Agency and Central Enterprise categories, which constituted 59 percent of the state-level virtual universities in Epper and Garn's study.

Due to time and resource constraints, it was neither realistic nor necessary to include in this study all of the 30 organizations labeled as central virtual universities. Therefore, the following criteria for selection were developed with the emphasis on maximizing variation: selecting a public entity that had a relatively long history of operation, engaging institutions of different types of control (i.e., public versus private, two-year versus four-year), representing different governance models (i.e., system-wide versus state-wide), and representing different funding models (i.e., state-funded versus self-sustaining).

Based on these criteria, together with the advice of an informant, Dr. Myk Garn, who has extensive experience in the state coordination of distance education, three cases were selected: Ohio Learning Network, Kentucky Virtual University, and UT TeleCampus. Ohio Learning

Network represents the central agency model, while Kentucky Virtual University and UT TeleCampus both represent central enterprise models.

Research Participants

A total of 43 people participated in this study, all affiliated with the three state-level virtual universities chosen for this study. As Table 3.1 indicates, the participants fall into three categories:

(1) Senior staff from the state higher education boards (N=3). Each provided the state or system perspective on the distance education initiatives. In the case of Ohio Learning Network, I was recommended to talk with the Vice Chancellor for Educational Linkages of the Board of Regents of the State of Ohio. He was willing to participate upon request, yet later he decided it would suffice to speak with the CEO of Ohio Learning Network. Also, his schedule around that time of year made it very difficult for him to accommodate a one-hour interview, so no interview was conducted with staff of the Ohio higher education board.

(2) The entire management team from the three virtual universities (N=17). Each provided an insider's perspective on the mission, operation, and issues within their organizations.

(3) The representatives of participating institutions (N=23). They were exclusively administrators who were in charge of or directly involved in the distance education initiatives on their campuses, including provosts, vice presidents, deans, directors of distance learning or academic services. One third of the institutional representatives were female.

Representatives of four research universities, fourteen four-year universities, one two-year institution, and one community college system in Kentucky were interested in participating in this study. All but one participant represented public institutions. Roughly four out of five of these university administrators were the head of the distance learning or continuing education

units in their institutions. The rest consist of eight from the central administration, two academic deans, one registrar and one in charge of library services.

Table 3.1

An Overview of Research Participants

Participants	KYU	OLN	UTTC	Total
Institutional Representatives				
President/Provost	0	1	1	2
Vice President/Provost	1	2	3	6
Academic Dean-level	0	0	2	2
Head of Distance learning or continuing education division	5	3	3	11
Others (e.g., Head of Library Service, Registrar)	0	2	0	2
<i>Sub-total</i>	6	8	9	23
Virtual University Management Team	5	6	6	17
State Governing Board	2	0	1	3
<i>Total</i>	13	14	16	43

The recruiting procedure was as follows. After deciding upon the virtual universities for this study, I contacted by mail the CEOs within each of the three virtual universities to request their participation in this study (See Appendix B). I then made a follow-up request to the CEOs by telephone, and all expressed interest and willingness to participate.

The list of institutional representatives was generated in three ways:

(1) Recommendation by CEOs. I requested that each CEO provide a list of representatives of the colleges and universities participating in their organization, preferably a list that represented institutions of all types (two-year versus four-year, private versus public) and professionals of all ranks and categories (administrators at various levels/divisions).

(2) Peer referral. At the end of each interview, I told the interviewee about people on my list and asked them to identify others of significance to the study. I then put together a list of institutional representatives and contacted each by email about the possibility of participating in this study (See Appendix C).

(3) Self-selection. In the case of Ohio Learning Network, I had the opportunity to sit in on one of the meetings of the academic outreach committee, which consisted of administrators representing 15 colleges and universities across the State of Ohio. After the meeting was over, four people offered to stay for a 45-minute group interview.

Theoretical Framework

Research methodologists differ as to what role theory plays in conducting case studies. Merriam (1988) posited that a case study design can be used to test theory, but a qualitative case study usually builds theory. The place of theory in a case study depends to a large extent upon what is known in the area of interest. Gilham (2000) went even further by stating that a researcher does not start out with a *priori* theory because “until you get in there and get hold of your data, get to understand the context, you will not know what theories (explanations) work best or make the most sense” (p. 2). Yin (1994), however, argued that the role of theory development, prior to conducting any data collection, was one point of difference between case studies and related methods such as ethnography (Lincoln & Guba, 1985; Van Maanen, 1988) and grounded theory (Strauss & Corbin, 1990). As a matter of fact,

A complete research design requires the development of a theoretical framework for the case study that is to be conducted, whether the case study is to develop or to test theory.

A good case study investigator should make the effort to develop this theoretical

framework, no matter whether the study is to be explanatory, descriptive, or exploratory (Yin, 1994, p. 32).

I agree with Yin (1994) that theory is an essential part of the case study research design. A theoretical framework is crucial in guiding the research throughout the process. This study employed as the theoretical framework the organizational frames proposed by Bolman and Deal (1997). The framework was not only an immense aid in defining the appropriate research design but also became the main vehicle for generalizing the results of this research.

Bolman and Deal (1997) advocated using multiple lenses to look at complicated organizations to determine what was working, what was not, and why it was so. They identified four organizational frames, respectively, structural, human resources, political, and symbolic. Each of the four frames has its own image of reality; combined, they help to capture the subtlety and complexity of organizational life.

Specifically, the structural frame emphasizes goals, specialized roles, and formal relationships. According to Bolman & Deal (1997, p. 15), structures, commonly depicted by organization charts,

are designed to fit an organization's environment. Organizations allocate responsibilities to participants and create rules, policies, procedures, and hierarchies to coordinate diverse activities. Problems arise when the structure does not fit the situation. At that point, some form of reorganization is needed to remedy the mismatch.

The human resources frame sees an organization as much like an extended family, inhabited by individuals who have needs, feelings, prejudices, skills, and limitations. They have a great capacity to learn and to defend old attitudes and beliefs. From a human resource perspective, the key challenge is to tailor organizations to people—to find a way for individuals

to get the job done while feeling good about what they are doing. The political frame sees organizations as arenas, contests, or jungles. Different interests compete for power and scarce resources. Conflict is rampant because of enduring differences in needs, perspectives, and lifestyles among various individuals and groups. Problems arise when power is concentrated in the wrong places or is so broadly dispersed that nothing is done.

The symbolic frame sees organizations as

Cultures, propelled more by rituals, ceremonies, stories, heroes, and myths than by rules, policies, and managerial authority. Organization is also theatre: actors play their roles in the organizational drama while audiences form impressions from what they see onstage. Problems arise when actors play their parts badly, when symbols lose their meaning, when ceremonies and rituals lose their potency. We rebuild the expressive or spiritual side of organizations through the use of symbol, myth, and magic (p. 14-15).

These four frames—structural, human resources, political, and symbolic—reflect different dimensions of the life of an organization, and therefore provide various perspectives for use in constructing interview questions and collecting data from written documents. This study looks at the following aspects (see Table 3.2) that correspond to these four frames.

Table 3.2

Organizational Frames and Significant Questions

Frame	Definition	Central Concepts
Structural	Organization as formal structure <ul style="list-style-type: none"> • What is the mission of the organization? • How has the mission changed over time? • What is the organizational structure in place to achieve the mission? 	Rules, roles, goals, policies, formal relationships, etc.
Human Resource	Interpersonal & group dynamics <ul style="list-style-type: none"> • What are the needs of the participating institutions? • What services are provided to serve the participating institutions? • What is the communication mechanism between the virtual university and participating institutions? 	Needs, skills, relationships, etc.
Political	Organization as political arena <ul style="list-style-type: none"> • What are the conflicts in the virtual university? • What are the barriers? 	Power, conflict, competition, organizational politics.
Symbolic	Organization as theatre <ul style="list-style-type: none"> • What is the symbolic meaning of the distance education consortium? 	Culture, meaning, metaphor, ritual, stories, heroes, etc.

Data Collection Strategies

To build a holistic picture of activities in the three cases under study, multiple types of data were collected: document analysis, open-ended interviews, and, in the case of the Ohio Learning Network and the Kentucky Virtual University, observation.

Document Review

In this study, a number of relevant documents were collected and reviewed prior to the interviews, including legislation, state reports, and administrative documents such as planning materials, institutional/operation documents, policy statements, meeting minutes, and agenda items. Press releases and journal/magazine articles concerning the three organizations were also collected. Additionally, public information was retrieved from the official websites of the virtual

colleges or universities and the state or system higher education boards, including mission, history, policies, organizational structure, and other information relevant to this study.

Qualitative Interviewing

This study relied heavily upon 33 interviews—individual and group interviews—including 17 face to face, 15 by telephone, and one via email. A total of 43 people participated in this study, including individual interviews or group interviews. The CEOs of the three virtual universities provided generous support at the stage of data collection. In the case of the Kentucky Virtual University and Ohio Learning Network, the CEOs briefed their staff on this study and facilitated my visit to their organizations. At my request, they each put together an agenda for my visit (one day for KYVU, two days for OLN), providing an opportunity to have breakfast or lunch with their staff, to sit-in at the meetings, and to conduct face-to-face interviews with 16 individuals on site (See Appendix D). After the site visit to Kentucky, I conducted two more interviews in person, with one in the participants’ office in Kentucky and the other in Athens, Georgia, where the interviewee was attending a conference. I then finished the remaining eight interviews by telephone. In the case of UT TeleCampus, I was unable to visit due to the funding and distance constraints. As an alternative, I conducted interviews with one participant via email, eight by telephone, and another five in person when they came to Atlanta for the 2006 SACS Annual Conference. Table 3.3 provides a break-down of the interviews.

Table 3.3

A Summary of the Interviews

Interview Format	KYU	OLN	UTTC	Total
Individual Interviews	11	10	8	29
Group Interviews	1	1	2	4
Total	12	11	10	33

The key to getting good data from interviewing is to ask good questions (Patton, 2000). Prior to the interviews an interview guide was developed to outline topics to explore with each of the participants (see Appendix E). Before conducting any interviews, I piloted the interview protocol to refine the questions. The interviewees for this pilot were the director of the California Virtual Campus, a continuation of the now-defunct California Virtual University, and the director of the Connecticut Distance Learning Consortium. Both interviews were instrumental in helping me refine the questions and make them more specific and clearer than they would have been otherwise.

Following the guidelines of the Institutional Review Board at the University of Georgia, I requested each participant to read and sign the written consent form (see Appendix F) prior to each face-to-face interview. For the interviews conducted by telephone, I sent each interviewee an electronic copy of the consent form for review in advance and then obtained their oral consent before starting the phone interview. Each interview ranged from 45 minutes to 90 minutes and centered around topics such as the historical context of these virtual universities, structure and governance, services for different audiences, involvement of higher education institutions, assessment or self-assessment of the organization's impact, policy issues, and challenges and obstacles. The emphasis of the conversation varied slightly, depending on the organization and the interviewees and the group they represented.

After the interviews, I sometimes conducted brief follow-ups via email or by telephone for the purpose of clarifying things or requesting additional data. Interviews were transcribed and some participants were emailed a copy of their interview transcripts to give them an opportunity to clarify or add to the information gathered through the interviews, following a process recommended by Patton (1990). Also, I kept a researcher's journal to help me make sense of the

data collected through document review and individual interviews. The journal was also used to record notes, observations, reflections and ideas throughout the research process so that I could “focus and shape the study as it proceeds” (Glesne, 1999, p.130).

Observations

I was given the opportunity to attend one of the 2006 semi-annual meetings of the Academic Outreach Committee, one of the committees within the Ohio Learning Network. As a non-participant observer, I spent four hours taking notes of the issues on and beyond the meeting agenda, observed the interactions between the institutional participants and the CEO of OLN and the speaker from the Board of Regents, as well as those between higher education institutions. In this way I gained first-hand experience of the way the distance education consortium worked in Ohio.

Data Analysis Strategies

To analyze documentary data, raw data from primary sources (e.g., public websites, relevant documents, interviews) and secondary sources (i.e., press releases, journal/magazine articles) were read, organized, and classified in accordance with the four frameworks in this study.

The interview data were simultaneously collected and analyzed, using the constant comparative analysis from grounded theory. First introduced by Glaser & Strauss in 1967, grounded theory is “a general methodology for developing theory that is grounded in data systematically gathered and analyzed. Theory evolves during actual research, and it does this through continuous interplay between data collection and analysis” (Strauss & Corbin, 1994, p. 273). Grounded theory study generally focuses on a process (including people's actions and interactions) related to a particular topic, with the ultimate goal of developing a theory about that

process (Strauss & Corbin, 1994). Grounded theory studies are especially helpful when current theories about a phenomenon are either inadequate or nonexistent (Strauss & Corbin, 1990).

A central feature of grounded theory is the general method of constant comparative analysis. In this methodology, theory may be generated initially from the data, or if existing theories seem appropriate to the area of investigation, then these may be elaborated and modified as incoming data are meticulously measured against them. Constant comparative analysis was utilized in analyzing interview data. Specifically, I followed Goetz and LeCompte's guidelines (1984) that data analysis began with review of the research proposal to ensure that the investigation has addressed the original research questions. Then I read through the interview data from each case several times as it was collected, transcribed, and organized. While reading, I jotted down notes, comments, observations, and queries in the margins. The notes were later developed into a primitive outline or system of classifications into which data were sorted initially. The final product then became a detailed description of each case. A second level of analysis involved developing categories within each case (within-case analysis), followed by a thematic analysis across the cases (cross-case analysis). When categories and their properties were reduced and refined, the analysis moved toward the development of a theory to interpret the meaning of the data. In the end, both the documentary data and the interview data were combined to ensure consistency, accuracy, and in-depth of information.

Strengths and Limitations

Qualitative case study approach is of much value in refining theory and suggesting complexities for further investigation, as well as helping to establish the limits of generalizability. It can also be a disciplined force in public policy and reflection on human experience (Stake, 1994). However, as a research approach, case study has inherent limitations.

For example, although it provides in-depth understanding of a phenomenon, it focuses on the particular and therefore lacks generalizability. In this study, due to time and resource constraints, I focused on three out of over 70 virtual universities currently in operation, therefore limiting generalizability. Also, by utilizing qualitative research methods, this study relied in great degrees upon self-reported data through interviews; thus, a subjective view was presented. To improve the trustworthiness of the study, document analysis was also drawn upon to help to validate and supplement the self-reported data.

Validity and Reliability

In a qualitative case study, the investigator is the primary instrument for gathering and analyzing data, which makes it possible to be vulnerable to mistakes and biases (Creswell, 1998; Patton, 2002). To ensure validity and reliability, triangulation is often used to strengthen a study through employing multiple methods, measures, researchers, and perspectives. This study utilized several methods and strategies to ensure that it did what it meant to do, including collecting data from multiple sources (i.e., interviews, document analysis) and member checking for credibility (Lincoln & Guba, 1985).

CHAPTER FOUR

RESEARCH FINDINGS

This chapter presents an overview of each of the three virtual universities in this study: Kentucky Virtual University, Ohio Learning Network, and the University of Texas TeleCampus. Each case is presented separately and made up of five elements: a historical overview, mission and organizational structure, partners and services, challenges and conflicts, and a discussion of the meaning of the organization.

The information presented in this chapter was gleaned from various documents and sources relevant to the three organizations—either retrieved from the websites or provided by the organizations—as well as interviews with 43 participants, face-to-face, by telephone, or via email.

Kentucky Virtual University

Historical Overview

According to the 2005-6 Higher Education Almanac, in that year the State of Kentucky had a population of 4.1 million. According to the 2006 census, within the higher education system a total of 225,489 students were enrolled in 77 institutions, including 34 public institutions, 27 private institutions, and 16 for-profit institutions. The educational attainment of adults lagged behind the nation, with 11.1% earning a bachelor's degree in comparison to the national average of 16.9%, and 7.6% earning graduate or professional degree in comparison to the national average of 9.7%. Poverty rate was higher than the national average, with 14.3% versus 12.3%.

The state of Kentucky made visionary changes in its higher education system in spring 1997. Governor Patton, a Democrat, came into office in late 1995 advocating major changes in the state's postsecondary-education system, which included 8 public universities, 14 community colleges, and 25 technical schools. There had long been complaints about public higher education in Kentucky: the colleges did not work together, which was reflected in duplication of academic programs and difficulty of credit transfer among the campuses; the state coordinating board was ineffectual; higher education institutions failed in preparing state residents with needed job skills, and businesses were viewed as avoiding Kentucky (ALMANAC 97-98).

Within this context, the Governor called state legislators into special session in May 1997 to consider a 140-page bill to reshape the state's college landscape. He proposed creating three boards: a new coordinating agency with enhanced authority; a board of regents to oversee a new system made up of 13 community colleges and all of the technical schools; and a panel of lawmakers and educators designed to build political consensus for the colleges' long-term needs. The goal of the higher-education redesign was a stronger statewide governing board that would set policies designed to increase college-attendance rates, improve job-training programs, and raise the stature of Kentucky's public universities nationally (ALMANAC 97-98).

Five Questions served as the framework for postsecondary education reform in Kentucky in 1997 and also as the guidelines for KYVU initiatives:

Are more Kentuckians ready for postsecondary education?

Is Kentucky postsecondary education affordable to its citizens?

Do more Kentuckians have certificates and degrees?

Are college graduates prepared for life and work in Kentucky?

Are Kentucky's people, communities and economy benefiting?

One part of the 1997 reform was replacing the previously weak Council on Higher Education with the Council on Postsecondary Education (THE CPE) in May 1997. The Council on Postsecondary Education is the statutory coordinating agency for Kentucky's state-supported universities, and the new Kentucky Community and Technical College System (KCTCS) comprised of 13 community colleges and 15 postsecondary vocational-technical schools. The 1997 reform legislation gave the CPE new membership and stronger coordinating powers (ECS Website).

Another part of the 1997 bill was the creation of the Commonwealth Virtual University, which was renamed Kentucky Virtual University (KYVU) in 1998. The original goal of the KYVU was enhancing and expanding educational access and increasing educational attainment across Kentucky through technologies. To initiate the planning and development of the KYVU, the Distance Learning Advisory Committee (DLAC) was created to seek input from Kentucky's postsecondary leadership as well as national leaders in the field. In the fall of 1998 Gordon Davies, President of the CPE, appointed Mary Beth Susman as the KYVU's founding Chief Executive Officer. The 1998 General Assembly passed HB321 that included funding of \$8,000,000 in 1998-99 and \$9,605,000 in 1999-2000 for the KYVU and provided for up to \$30 million in bond funds for technology infrastructure to support the KYVU and to update the infrastructure support to the public universities and libraries in Kentucky.

In the inaugural fall 1999 term, KYVU opened its doors to 235 students in nine pilot programs, the largest ever enrollment for a first semester of any statewide or region-wide online consortium of its kind in the U.S. The virtual university grew quickly to over 3,200 students by spring 2001, and the number rose to 9,810 learners in the fall of 2002, including 8,479 in the for-credit courses offered by Kentucky academic institutions and 1,398 in adult and continuing

education courses. The fall of 2003 saw a 122% increase to a total of 21,765 learners. Enrollment in the not-for-credit courses offered within the KYVU infrastructure rose from 1,398 in the fall of 2002 to 8,950 in the fall of 2003: a 533% increase. More than half were older than traditional college-going age; nearly two-thirds were women. Students represented all 120 Kentucky counties, over 20 states, and 10 foreign countries (KYVU, 2004).

Right after its establishment the Kentucky Virtual University (KYVU) gained national distinction as “the nation’s largest consortium of colleges offering a complete online education experience,” the best-financed virtual university in the US and the first to operate three websites, respectively, the Kentucky Virtual University (KYVU), the Kentucky Virtual Library (KYVL), and the Kentucky Virtual High School (KVHS). Its founding attracted much attention in the higher education sector, as reflected in the frequent coverage in national media such as the *Chronicle of Higher Education* during the first few years.

KYVU Mission and Structure

There have been multiple statements of the KYVU mission over the years. At its inception, the official website stated,

Kentucky Virtual University strives to make postsecondary education more accessible, efficient and responsive to Kentucky's citizens and businesses. By coordinating and facilitating convenient online programs offered by the state's colleges and universities, KYVU seeks to increase the ranks of Kentucky college students, helping to raise the level of education statewide.

This statement indicates that Kentuckian students, or learners, were the primary constituency, while higher education institutions were the providers of online courses and

programs offered through KYVU. Specifically, the founding CEO of KYVU, explained the mission and roles of KYVU when it was first launched in 1997:

The first role is utility-provider—we could be Course Management System (CMS), common server, and so on; much of the student services could occur for students as a one-stop shop.... We could manage the development of courses and hold them online and registrations system and everything for the university, hoping they would see the economic advantages to have a single system for online education and could create a whole system of faculty training as to how to teach online. In some way, the first role is utility-infrastructure for institutions. The second role is the agent of change to push boundaries. You create an organization within an organization, so the larger organization can know right away what they need to do to change the way they do to approach their business. We saw ourselves as change agent and in some way try to do things efficiently from the student perspective so that other universities see the importance of doing things differently.

The mission was further stated in a supplement document to the SACS review team in 2005³, only in different wording:

KYVU works also to support ‘Students for Life’ through web-based support services provided by public, private and for-profit companies. Through enabling policies and appropriate technologies, the KYVU consists of two major components: 1) a clearinghouse for quality distance learning opportunities provided by existing institutions

³ In early 2005, the President of SACS sent letters to the Presidents of 23 of Kentucky’s colleges and universities informing that SACS wished to collect information relating to (1) general information about the extent of an institution’s involvement with KYVU and (2) baseline data on institutional compliance with SACS standards for consortial relationships and contractual agreements for online learning. KYVU hosted a review team in spring 2005 and later submitted subbasement documents upon request.

both within and outside the state, primarily certificate and degree programs; and 2) a single point of access to statewide student, library, and academic support services (p. 2).

This statement was consistent with the 1997 version but was more specific in describing the function of KYVU as a service entity, a clearinghouse and a “one-stop shop” for online students interested in receiving a degree or certificates from higher education institutions in Kentucky. Again, the higher education sector remained the sole partner but not the primary constituency.

In the KYVU’s self-study report to SACS in May 2005, the mission took on a new look. While the organization continued to be student-centered and service-oriented, it started to serve a wider audience by including a professional development component:

KYVU is a student-centered, technology-based, seamless system for the support of lifelong learning. KYVU simplifies access to quality college credit, professional development, and supplemental education opportunities for all citizens of the Commonwealth. KYVU provides a single access point to statewide learning support services, including the Kentucky Virtual Library” (p. 2)

With a fanfare start but relentless resistance from the higher education sector afterward, KYVU was forced to re-examine its mission and redefine its direction in 2006. External consultants were brought in to conduct an environmental scan and assist in creating a new strategic plan. A direct result was a change of the name from Kentucky Virtual University to Kentucky Virtual Campus, as the former was considered inappropriate and misleading for a non-degree-granting, non-academic organization (KYVU, 2006). Another direct product of the 2006 reform was a revised mission statement at the KYVC website:

The mission of the KYVC is to be a student-centered, technology-based system for coordinating the delivery of postsecondary education that meets the needs of citizens and employers across the Commonwealth. Through enabling policies and appropriate technologies, the KYVC shall achieve five purposes: (1) enhance and expand educational access, (2) upgrade workforce skills and foster professional development, (3) increase collaboration and encourage efficiency and effectiveness in delivering courses and programs, (4) enhance educational quality, and (5) increase global competitiveness of Kentucky's educational resources (KYVU website).

The current KYVU remains student-centered and retains its functions as a clearinghouse and point of access to a number of services to degree or training seekers, but there are some dramatic differences from the previous missions: (a) postsecondary education institutions and state agencies replace learners as the primary constituency; (b) the organization is to switch from an owner/operator/utility to an advocate, convener and catalyst of bringing people and needs together; and (c) KYVU is less a provider and more involved with facilitating infrastructure and services acquisition (DLAC, Aug. 22, 2006).

The evolution of the KYVU mission in the past decade is not simply a matter of the self-growth of the organization itself. Instead, it was a call from participating higher education institutions. As a matter of fact, during the interviews the inconsistency of KYVU's mission as reflected in the statements above were raised by each of the twelve participants, KYVU staff and representatives from participating colleges and universities; accordingly, the missions dominated the conversations, an aspect that distinguished the KYVU from the other two state organizations in this study.

Structurally, the KYVU is a part of the Kentucky Council on Postsecondary Education (CPE), the policy making body for higher education in Kentucky and a government agency of

the Commonwealth. the CPE is responsible for establishing KYVU policy. Specifically, it is charged with identifying and adopting an effective, efficient organizational structure and operating unit for administering the KYVU.

Internally, the KYVU was founded with a management team of five. The Chief Executive Officer reports directly to the CPE President. Five directors, each of whom has administrative and clerical support from senior executive secretaries, report to the CEO, including the Director of the Kentucky Virtual Library (KYVL), Director of Finance and Administration, Director of Marketing, Director of Academic Services, and Director of Student Services.

Along with its change in mission, KYVU has evidenced a change in the structure and size of the organization. Barely a year after the launching of KYVU, the CPE went through reorganization; the direct impact on KYVU was the loss of its director of marketing to the CPE and a cut of several staff working in the call center, which was a direct point of access to prospective learners. With the decreasing participation of higher education institutions, more student services were dropped and consequently more support positions were cut. High leadership turnover also bothered the organization: the founding CEOs barely stayed two years, reportedly because of philosophy conflicts with the president of the CPE; the second CEO reportedly failed to establish rapport with many colleges and universities during his two-year tenure; after he left, the director of finance and administration was asked to lead the organization for nearly two years while continuing her original responsibility; KYVU welcomed its fourth CEO in spring 2005 and he has remained since.

To work with higher education institutions, a series of committees were established. Their job was to seek input of the higher education sector and to guide the KYVU to better serve

students interested in taking online courses and programs through KYVU. Among the committees, the Distance Learning Advisory Committee (DLAC) was created during the planning phase of KYVU to seek input from Kentucky's postsecondary leadership as well as national leaders in the field. Primarily made up of vice presidents and provosts of Kentucky's colleges and universities, the DLAC was responsible for creating committees and work groups to plan and recommend policies and procedures for the operation of the KYVU. In 2003, the increasingly important role played by all forms of distance education in Kentucky and offered by a wide range of providers —web-based education included—led DLAC to expand its statutory responsibilities as an advisory group to the CPE to include broad distance education issues such as the coordination of policies, programs, support services, and infrastructure in support of distance education across all Kentucky postsecondary education institutions. In 2005, the Distance Learning Steering Team (DLST) was created to address the implementation of DLAC's recommendations to the CPE regarding statewide distance education. Members of DLST were nominated by each member of the DLAC. Under DLAC and DLST were four workgroups, respectively, the eLearning Workgroup, the Policy Workgroup, the Support Services Workgroup, and the Infrastructure Workgroup. In addition to DLAC, a set of committees and workshops were formed to serve as advisory groups to KYVU, each with a specific charge. They are, respectively, the KYVU Academic Council, the KYVU Coordinators, the Faculty Development Workgroup, and the Marketing Committee.

Table 4.1

Committees within KYVU

Committee	Charge
Distance Learning Advisory Committee	<ul style="list-style-type: none"> • Advising the CPE on broad distance education issues in Kentucky • Creating committees and work groups to plan and recommend policies and procedures for the operation of the KYVU
Distance Learning Steering Team	<ul style="list-style-type: none"> • Addressing the implementation of DLAC's recommendations to the CPE regarding statewide distance education
<i>eLearning Workgroups</i>	<ul style="list-style-type: none"> • Defining the distance education policies, programming, support services, and infrastructure
<i>Policy Workgroup</i>	<ul style="list-style-type: none"> • Providing discussion and feedback to the Distance Steering Team on policy issues relating to statewide collaborations, including: tuition, transfer, collaborative models, etc.
<i>Support Services Workgroup</i>	<ul style="list-style-type: none"> • Identifying the critical support services necessary to ensure success for distance education students and faculty
<i>Programs Workgroup</i>	<ul style="list-style-type: none"> • Assessing appropriate distance education programming, including programs needed to address Kentucky's workforce needs and the providers best positioned to provide needed programs
<i>Infrastructure Workgroup</i>	<ul style="list-style-type: none"> • Addressing role of and strategy for common technologies, e.g., course management system, joint purchasing, and shared hosting.
KYVU Academic Council	<ul style="list-style-type: none"> • Advocating for KYVU and recommending to the CEO academic policies and procedures such as tuition differentiation
KYVU Coordinators	<ul style="list-style-type: none"> • Serving as the central contact for the management and coordination of KYVU activities within the institutions
Faculty Development Workgroup	<ul style="list-style-type: none"> • Creating a statewide focus on faculty development as a means of enhancing the teaching quality
*Marketing Committee	<ul style="list-style-type: none"> • Raising awareness of KYVU, and recruiting new learners into postsecondary education

*Note. Non-existent since 2002

Interviews with member institutions of higher education revealed several problems with the structure. For example, the committees or workgroups were not inclusive. Most of the people sitting on the committees were campus administrators in charge of distance education, continuing education, or teaching and learning, while “on the ground” folks in the units working directly with distance students (e.g., the registrar’s office) were not included. This omission led to limited support and understanding of the KYVU activities and affected the quality of KYVU’s daily operation. One campus-level director at a research university complained, “The mechanism that we had access to students was archaic. So much confusion on the part of our students.” She then talked bitterly about the controversial situation where KYVU admitted a student who turned up without the required credentials. The reason, she concluded, is that “they (KYVU) need to get back to the grassroots and say, what value can we add to your institutions?” An administrator from a regional university had similar observations:

I’d say probably they need to think from the ground—information technology, and registrations folks—and get their input as to what will make a statewide portal that allow students to come in and access all the offerings that they have available.

Another problem related to the over-concentration of distance education professionals on the committees resulted in one person wearing more than one hat. The representative of the two-year system talked about the malfunctioning of the committees and sighed, “The same people are sitting in different committee meetings. The coordinators haven’t met for a while, because they’re all on the DLST meetings.” This situation concerned many people during the interviews, especially after members of DLAC, the advisory group to the CPE, stopped coming to regular meetings but instead sent their designees, who were more often than not sitting on other KYVU committee(s). Institutional representatives saw this as a sign of fading interest in distance

education on the part of institutional leaders; also, they worried that without the institutional leaders at the meetings, distance education in Kentucky would lose political support and strategic visions.

Inactive committees were likely to reduce dialogue, and several institutional representatives became aware of this, as one of them acknowledged: “I think there is a lack of communication. I think there is lots of disconnect. There are probably many things going on, but who knows about them? How is the marketing [function]?” Minimal communication led people to believe the KYVU’s committees were unproductive and, as a result, fewer and fewer people showed up at its committee meetings.

KYVU Partners, Students, and Services

Kentucky Virtual University does not grant degrees; neither does it have its own students or faculty. Rather, it partners with Kentucky higher education institutions to serve students in an online environment. Partly because of the lack of enthusiasm of the higher education sector, in 2003, KYVU switched its focus by offering technical training to state agencies, e.g., professional development and workforce development providers, in addition to its work on higher education.

According to its website, the primary customers of the KYVU are citizens of Kentucky who are 23 and older, not enrolled in a college, and living in remote areas of the state or are place- and time-bound. Its current enrollment comes from 120 Kentucky counties, 37 states, and 6 foreign countries; approximately 65% of the enrollments are age 23 or older; and a majority of the students are enrolled in the Kentucky Community and Technical College System (KCTCS), a two-year sector that had been part of the University of Kentucky until the 1997 higher education redesign made it possible for them to become a separate system that is part of the CPE. The secondary customers of the KYVU were identified as place-bound and time-bound students;

employers and employees in business, industry, and government; K-12 teachers and administrators; and students living in other states and countries.

As KYVU does not control student data, actual enrollments in academic credit hours offered online through KYVU are difficult to determine. In fall 2004, approximately 27,900 students were reported to have accessed the KYVU services. The following table shows the low percentage of degree seeking students who accessed KYVU’s services (KYVU, May 2005).

Table 4.2

KYVU Enrollments in 2004

Institution	Enrollment
Morehead State University	3
East Kentucky University	11
Midway	46
Western Kentucky University	90
Kentucky State University	124
University of Louisville	1064

The KYVU worked with three types of partners, including 27 public colleges and universities in the state of Kentucky to offer credit courses, two out-of-state institutions (West Virginia as importer and University of Baltimore as exporter), and seven state agencies for professional development and adult education.

In accordance with the three types of partners, three types of programs were offered through KYVU: academic & college degree programs, professional & career development programs, and adult education programs. In 2006, three out of four online programs offered through KYVU were academic programs; nearly 60% of the programs lead to the completion of

a license, instead of a degree. Among the 53 academic programs, 40% led to a license of some sort, and 60% led to an associate, baccalaureate, or master’s degree. Half of the license programs focus on professional development (i.e., technical training) and adult education, and are directly offered to employees at state agencies (See Table 4.3).

Table 4.3

A Classification of KYVU Programs

Program	Associate	Baccalaureate	Masters	License	Total
Academic	10	11	10	22	53
Professional	0	0	0	16	16
Adult Ed	0	0	0	2	2
Total	10	11	10	40	71

Note. Table compiled based on data retrieved from the KYVU website in 2006

Professional programs such as education, business, and science and technology, law, and health science—in a decreasing order—constitute over 80% of the academic programs offered through the KYVU in 2006, with the remaining programs in social sciences and humanities (See Table 4.4).

Table 4.4

A Classification of Academic Programs

Program	Associate	Baccalaureate	Masters	License	Total
Education	0	2	6	8	16
Business	6	2	1	3	12
Science & Tech	1	1	0	5	7
Social Sciences	0	1	0	5	6
Humanities	1	3	0	0	4
Law	1	1	2	1	5
Health science	1	1	1	0	3
Total	10	11	10	22	53

Note. This table was compiled based on data retrieved from the KYVU website in 2006.

KYVU provides services directly to online students, faculty, and higher education institutions. For students, the KYVU services include online registration, a virtual library, and technical helpdesk around the clock. For faculty teaching online, KYVU provides technical assistance around the clock, grants for course development, and awards for online faculty pioneers, an annual conference on faculty development, and training opportunities for online teaching and learning. For higher education institutions, KYVU maintains an online course catalog of online courses upon request and provides a *revolving loan fund* to encourage institutions to develop more online programs.

When KYVU was launched in 1997, it had students as its primary constituency and it was designed as a central service provider. Instead of building upon existing distance education infrastructure in the state, it was independent of colleges and universities in Kentucky. Naturally,

this was considered competition against the higher education sector; hence alienating the higher education institutions. An administrator from a research university noticed, “Early on they played the role of a university, yet they don’t understand the first thing about being a university is academic rigor. I think that has offended many folks.” Her colleague added, “Most of them use less and less services because they had their own CMS.... because a bunch of budget went away and there is less marketing being done.”

Interestingly, during the interviews few people talked about the services provided by KYVU, which set KYVU apart from the other two cases in this study. While KYVU invested heavily in the student interface and registration functions, these services were not positively regarded by colleges and universities: to them, these were student services that fell under institutional territory. KYVU, some of them believed, served the state best by supporting the higher education sector directly—through leveraging cost and providing resources, for example— instead of competing for state funds against higher education institutions.

Although the member institutions were in general dissatisfied with KYVU, they thought favorably about the following things provided by KYVU: the revolving loan program targeted at interested institutions for developing online courses, the Kentucky Virtual Library, and the annual conference on faculty development. A survey with member institutions and agencies identified that the course and program catalog, 24/7 Technical Helpdesk, Call Center, and Course Management System were the most crucial services provided by KYVU (DLAC, March 12, 2007).

Conflicts and Challenges

In the early years, KYVU attempted to function as a central service provider independent of higher education institutions in Kentucky. This damped down the enthusiasm of the higher

education sector and caused resistance. In response to the dwindling participation of the colleges and universities, KYVU had to revise its mission several times and even had to switch to state agencies, an entirely new client that is interested in non-academic technical training. Several issues arose over time as shown below.

Inconsistency of mission and goals

Reportedly, there was a role gap between what institutions expected and what KYVU actually turned out to be. According to a senior administrator at the CPE,

What providers envisioned is a provider-driven consortium where they would sit together with the Council as to what programs to offer and who will offer them. What we (the CPE) saw is a student-demand process where there is tremendous tension starting from those two visions.

This opinion was seconded by a member of the KYVU management team,

While all agreed on the VU idea, none of them had the same concept. Regional universities saw it as a source of funding that provides them more resources for course development, training faculty, technology they need. My sense is that VU needs to form partnership, which is the key. The CPE perceived that students come to KYVU, register for courses, pay tuition to KYVU, and KYVU distributes money to institutions.

Institutions were reluctant to do that; they maintained it was too difficult to work that out.

This confusion was partly attributed to insufficient communication—for example, no needs assessment—during the planning phase. According to the director of continuing education from a regional university, “Experts were invited from other states like Maine and Colorado to help create the new virtual learning entity, but higher education institutions didn’t feel like being included in this process.”

As a result of lack of consensus over what a virtual university was to be like, higher education institutions had various conceptions of the virtual university in their state. Naturally, there was disappointment and then resentment after they learned that this state entity did not match their conceptions. An administrator from a research university stated:

Originally, KYVU was created to be, in my opinion, a mechanism for the universities, really a partner in a meaningful and substantive way. We hoped they would be a means by which we could collectively come together to get a really great price for CMS. They could be a forum to bring all institutions together. They have not done that.

Consequently, institutions do not interface with them. I had hoped they would be the leader in helping us with the ability to move forward in the distance education arena. Not happening.

A distance education director from one of the regional universities in Kentucky, which the CPE had targeted as the primary partner, envisioned KYVU as “nothing but a way to market programs and courses of a university. I do not think they are doing that. I don’t think they have the money to do that.”

When asked how to make the KYVU relevant and robust, member institutions suggested the following: (a) serving as a discussion forum: “They could bring people together, setting some goals that make sense, that really benefit individual institutions. It will be such a win-win situation”; (b) bringing out collaborative programs: “In the future we need to have more collaborative programs....[for example,] two plus two programs between the Kentucky Community and Technical College System (KCTCS) and four-year institutions. That will be very valuable”; (3) functioning as a resource center: “To bring in cutting-edge things in distance education. How exciting it will be, if say, here is what Colorado is doing. We never had those

kinds of discussions”; (4) developing the marketing function: “to get better marketing out there”; and (5) achieving economy of scale: “We’ve got to find ways of working together and minimizing cost by pooling resources.”

With differing views about the mission and hesitant attitudes toward KYVU services, it came as little surprise that the majority of the academic enrollments were from the two-year KCTCS institutions, with most of the four-year institutions providing distance education opportunities on their own as opposed to participating in KYVU. For most of the time the interviewees dwelled on the lack of active participation on the part of higher education institutions, as a senior administrator of the CPE acknowledged,

They (colleges and universities) are not offering collaboration. They are simply saying our way or no way.... If we are into an area that is popular, that is generating enrollment money from institutions, they will be complaining. They will block us because they do not want competition, and they DON'T want collaboration. They want to do things their way.

Specifically, several things surfaced during the interviews that largely accounted for KYVU's inactiveness at one time.

Lack of incentives for large universities

It is a national phenomenon that large institutions are not as likely to participate in state virtual universities as their smaller counterparts, as the former CEO noticed early on, “Two-year institutions tend to be able to work together and respond quickly. I don't think we had much success in having four-year institutions jumping on the wagon there.”

The reasons vary. In the case of KYVU, it was primarily because larger institutions were not looking for more enrollments. A senior staff from KYVU sharply pointed out,

There is capacity issue. Institutions decide what programs they are going to offer via the distance. Any growth we see in online learning is pretty much conversion of campus courses to online courses. They are still teaching the same number of students. Their student-to-teacher is about the same. They're trying to teach more people with the same number of faculty, but that's a small increase. So they don't have the need to offer distance education through KYVU because they can fill up sections without offering them on Kentucky Virtual University anyway.

The capacity issue was confirmed by a distance education director from a regional university. He added that KYVU's exclusive use of the internet as a delivery tool also limited their participation in KYVU:

We fill up access as soon as we put those courses out there. Our mission is to serve East Kentucky, so we are limited as to what we can do....We offer many courses through two-way video. That is our No.1 business to deliver at our institution, yet KYVU is exclusively about internet-based learning. There are some system interfaces between KYVU and our university that have complicated our relationship with them and our ability to be willing to partner with them.

Administrators from a research university explained that their university already had an established distance education infrastructure that was self-sufficient by the time KYVU came up:

The reality is that we have already been doing a lot in distance education. We had our own way to do it, had our own partners working together, formed sorts of alliances. What they (KYVU) did was to bring their infrastructure and draw on top of the infrastructure that is already successful and that alienated many of the folks. I think there is miscommunication there, a sense of arrogance from The CPE that we need their help.

What we need is to bring the synergy in a collective body of power you can get, the economy of scale of bringing institutions together, finding ways of saving money to better serve students, getting better marketing out there.... I think our institution has the vision and resources to implant collaborative agreements and multi-institution programs independent of KYVU.... Because we were there and because we were moving forward, we were acting independently. Because there was no KYVU when they were making early decisions and moving toward models of collaboration. That is not relying upon a central resource like KYVU. By the time KYVU made decisions about how they would support that mission, we were in a direction that limited our participation. The goals are similar.... We have been able to accomplish these goals independently of KYVU partly because we have already been moving toward these goals and chose a different path.

The influence of The CPE

As a part of the CPE, KYVU received funding from the agency and many of its functions became welded with it later on. A senior member of the KYVU management team stated,

The president of the CPE tried to make some very dramatic reforms in higher education, and a lot of tensions—“heavy handed” in some way. Institutions, to counteract him, really did not want to show him that KYVU could succeed that much.... [After I left, KYVU] lost many of their functions, like course development, registration, staff. It changed from acting like a separate unit within the CPE to welding much of the work into the CPE, so now it is hard to tell KYVU from the CPE.

Another two people in KYVU also spoke of the CPE influence on KYVU’s approach to higher education institutions. One fondly recalled the creative and relaxing atmosphere of KYVU in the early years when it was functioning like an individual unit and then concluded

abruptly, “there was probably too much oversight from the CPE.” The other put it equally briefly: “The CPE wants to coordinate institutions, while institutions felt they should be the ones to do that.” KYVU was caught in between these two forces and it was not a situation that they were able to get out of quickly enough to avoid being damaged.

Top-down approach

A centralized, top-down approach was brought up several times during the interview. For example, KYVU identified several high-demand courses and requested colleges and universities to offer them the online. After repeated rejection, KYVU picked a provider from outside Kentucky, which enraged the higher education institutions. Reflecting upon this incident, a senior staff member from the CPE shared the lesson they learned:

The fact that we are trying to force them becomes an issue in itself. It is a major mistake on our side to try to force that. We still have resentments some seven years later over that. We now more believe in open platform.... One lesson we have learned: you cannot ignore providers, that the culture is—the academy is—such that the intuitions are jealously protective of their curriculum. To try to force them to change is an extreme undertaking and we simply didn’t have the will to force our vision upon them. At one point, we said they have the right of first refusal.

Another KYVU attempt to impose upon member institutions the uniform use of WebCT was considered “the straw that broke the camel’s back. It was at that point that people realized that KYVU wasn’t our partner,” according to a representative from a regional university. This observation was confirmed by the leading figure from the two-year sector; and it was the same reason that KCTCS, for a long time the primary player and majority contributor of enrollments to

KYVU, decided to establish its own infrastructure (including CMS) and lead a state-level distance education consortium. One institutional representative stated:

Four-year institutions chose to do their own route, primarily because of CMS. It was a top-down decision, was not perceived as collegial. Collaborations come through partners talking to each other. Sometimes, I get the feeling there is no trust level there. This probably goes back to the top-down decision of the institutions being told rather than ‘would you like to have this or that?’

A seasoned administrator from a research university suggested that a common CMS was not necessarily the only way to make a distance education collaborative possible: “In some way we may overemphasize the common CMS. We need to broaden perspectives and look at other ways that can facilitate multiple-institution collaboration. There is shared library service, an example of centralized approach.”

Lack of leadership from KYVU

Several institutional representatives criticized KYVU and the CPE for not demonstrating leadership in distance education, a role that KYVU was created to play. According to an administrator from a research university, “We’ve got committees, but no real leadership from KYVU in that regard. No leadership at all.”

Rather, while there was not much collaboration going on within KYVU, disappointed member institutions worked together outside KYVU to fill a role that they felt KYVU failed to play. For example, one institutional representative reported, “We organized a group of institutions to negotiate for better pricing support because that role was not done by KYVU. We thought that’d be their role.” Another person added,

They came up with initiatives, but there has been nothing in my opinion that has impacted the state with regard to distance education. No collaborative initiatives. In fact, colleagues in University of Kentucky, East Kentucky University and West Kentucky University are spearheading some consortial agreement with Blackboard. KYVU needs to be doing that.

An administrator from a participating college mentioned a statewide effort that would bypass KYVU, “We are moving to a different partnership with the Center for Rural Development. It involves primarily Blackboard users, all beyond that... KCTCS is leading it, but it is a statewide effort. We have got everybody involved.”

Interviewees from a research university presented an example of an inter-institution collaborative degree program:

Three member institutions were creating a comprehensive program leading to a degree that has elements from each of the institutions. KYVU is not doing any of this....

Another five institutions are putting together a degree program of Canadian Studies. We are pro-collaboration. Everybody agrees upon collaboration, but not on the methods to get there.

One institutional representative from a large, four-year university expressed strong interest in a statewide distance education system:

Gee! Won't it be wonderful to have a group to get together and discuss issues, like program evaluation at the end of the term? Can it be beneficial? Yes. Can I do without it? Yes. We will be more successful if we are all working together.

Meaning and Value

Some institutions saw little relevance of what KYVU did to distance education initiatives on their home campuses. As the distance education director from a regional university noted, Departments or colleges do not see the value of KYVU. “What does it (putting courses through KYVU) do to us?” It is not really promoted. There is a lack of identify of KYVU. They need to get meaning. At the time KYVU was created, we all said, “it is a marketing tool. It will bring us students.” It had a role there. Now they really need to decide what they need to do, what they can do best. If they want to participate on a great level, what can you do? Now what they can do for us is probably bring people together and sit around talk about these issues.

Partly because of the lack of institutions’ participation, KYVU switched from exclusively working with academic institutions to including state agencies and K-12 schools on workforce development and adult education in 2002. This lack of focus was frequently brought up by both KYVU staff and member institutions. The concern of a KYVU officer was quite representative, “We cannot be all things to all people. WE should determine or identify the market we will be going to focus on, and focus on these things we can do well. There is a lack of KYVU focus.”

An administrator from a research university put it in a more straightforward way:

They are trying to speak to the needs of too many diverse constituencies. Unless they are focused and strategic, things are not going to get done. I think because they have not had real success, they want to bring adult education and the workforce development. There is no real interface with higher education in that regard.... Like we are trying to get some things accomplished that are different. It drives institutions away because there is no

connection. Their needs are not my needs. I cannot think of a way to interface with them so that it is mutually beneficial.

It is not surprising that one interviewee called KYVU “a ship without a rudder” and said, “Institutions were alienated because of their lack of direction. They could maybe provide other relevant services.” Another institutional representative made the following suggestion:

The mission was different from originally articulated by the former KYVU. Their ability was impaired by decisions that made it more difficult for four-year institutions to participate broadly in their offerings. It is an appropriate time to re-evaluate the mission of KYVU and see if what they are doing is consistent with their original vision and, if not, to define that original vision or to reexamine the benefit of a centralized approach to online education. There are certainly other models that are collaborative but not centrally administered in which institutions can cooperate and share institutional elements that go into distance education courses. It will be a different structure or organizational arrangement than the current centralized administration.

One of the KYVU officers, however, counteracted the accusation of the switch of focus and considered that a proof of serendipity and organizational liveness:

What we did is “let’s go where the market is right now.” But we never lost sight that what we want to do is traditional courses. When the institutions get mature, they will come back to us. That is, [when they] they get over their anger over CMS, they would see the advantages of joining us. So we consider what we have done to be a diversion if you will, we want to be better at craft.... You go to the Education Professional Standard Board which certifies teachers and they’d pay us. So we felt that is consistent to our

mission, and that is to advance education. So we did that.... It is a journey: You set off, and it takes you to different places. You have to be open-minded.

Summary and Discussion

The Kentucky Virtual University was launched as part of a 1997 legislative reform to redesign higher education in Kentucky, with the goal to increase college-going rate, enhance workforce performance, and improve Kentucky's public higher education overall. Since its launching, KYVU has encountered a number of challenges.

From the structural perspective, the KYVU mission has been constantly changing over time, therefore leading to confusion and distrust of the higher education sector. KYVU's failure to distance itself from the Council of Postsecondary Education prevented it from creating its own image and forming its own agenda. Finally, it lacked an effective mechanism to communicate with leaders and the distance education professionals of participating higher education.

From the human resources perspective, KYVU started as a central service provider and invested heavily in services directly targeted at online students, such as a student interface, online registration, technical assistance, and digital library service. Although KYVU also provided some services to faculty and higher education institutions, higher education institutions felt that KYVU served the state best by supporting colleges and universities directly, instead of functioning like a real university and competing against existing institutions for state funds.

For the political perspective, a number of factors discouraged higher education institutions from actively participating in KYVU. First, there was a lack of consensus over what a virtual university like KYVU should be like. Second, there were not enough incentives for larger institutions with their own distance education infrastructure already in place. Third, the top-down approach by the CPE and KYVU was considered non-collegial, thereby causing

resistance from higher education institutions. As a consequence, higher education institutions started to collaborate with each other leaving KYVU out of the loop.

From the symbolic perspective, it is clear that KYVU suffered from a lack of identity. It was constantly in flux: from functioning as a central service provider to policy change agent, from primarily serving online students to institutions, and from offering academic programs to programs on workforce development and continuing education. While trying to be “all things to all people,” it started losing its focus, driving away the higher education sector, and compromising its original goal of expanding access to higher education in Kentucky. Not surprisingly, institutional representatives questioned the value of KYVU and dubbed it “a ship without a rudder”.

Despite the problems and issues discussed above, the interviews show that KYVU was valued for taking the lead on distance education, and for providing services such as library services and an annual conference on distance education.

Ohio Learning Network

Historical Context

The Ohio Learning Network (OLN) was created in 1999 following a statewide committee recommendation. In July 1996, the Ohio Technology in Education Steering Committee released its report *Technology in the Learning Communities of Tomorrow*. Two recommendations from this report were key to the creation of OLN. Recommendation Two was to establish “a Professional Development environment in Ohio”. This environment “should consist of four components: a State-wide Technology in Education Collaboration Link, Technology Demonstration sites, cooperative efforts aimed at defining and meeting professional development needs, and research projects to develop appropriate methods for assessing learning productivity.”

Recommendation Four was to “create a standing Advisory Group for long-term Policy Development and Evaluation” (p. 55). The recommended Statewide Technology in Education Collaboration Link (TECLink) eventually was renamed The Ohio Learning Network (OLN) in 1999 (Policy and Planning Group minutes, February 17, 1999).

The OLN’s initial planning and development was done in monthly meetings by a statewide *Policy Planning Group*, which was active between December 1998 and August 1999. The Policy and Planning Group was converted to OLN’s *Governing Board* in September 1999. Using an open, collaborative approach, the Governing Board, OLN staff, and the Advisory Group developed OLN’s strategic plan and goals (NCHEMS, 2002). The early planning also addressed some strategic decisions that proved to be critical to the operation of OLN. According to the CEO of OLN, from the very beginning, “OLN had had institutions in mind as primary constituency, and working with students through institutions. It is a good model that works in Ohio.”

A registrar from a small private university participated in the planning process and recalled some of the strategic decisions that were made early on:

I think some of the key initiative decisions that I remember were very strongly fixed to the assumption that OLN would be designed to create another degree authorizing structure. What they wanted us to do is enforce the infrastructure, to go through higher education infrastructure in Ohio, but to do it another way. We are content shared, programs shared. Instruction may be taken at two or three schools leading to one degree, as they want us to best rely upon the existing higher education infrastructure, but be a bridge from one to another. The other thing that they made a quick assumption on is that student services, learners services, advising services, and personalized services would be

a key thing in the serving of adult learners as they enter the Network. But they wouldn't provide degrees directly; the university would provide the degrees.

Another decision concerns OLN's approach to working with higher education institutions. One of the recommendations in the *TIE Report* specified that OLN was an initiative of the Ohio Board of Regents, the coordinating group with a "direct, non-governing" relationship with Ohio's postsecondary institutions. As part of the Board of Regents, OLN must also coordinate without governing:

The Ohio Board of Regents leads, advocates, and coordinates the process of on-going transformation of higher education to maximize accessible, quality learning opportunities in a fiscally responsible manner resulting in individual successes and an improved intellectual, social and economic life for all Ohioans (p. 3).

These decisions, together with a few others in the 1999 strategic plan, were instrumental in setting the goals and tone for the OLN, for guiding its work and keeping the organization on track in the years that followed. According to the consulting work conducted by the National Center for Higher Education Management System (NCHEMS) in 2002, an OLN staff member praised this strategic planning, "When the strategic plan was finally accepted by the Board, we knew that we were going to do these things well.... The strategic plan is not a stagnant document; it is evolving."

Mission and Organizational Structure

The 1999 strategic plan of the Ohio Learning Network states that,

OLN seeks to raise the overall educational attainment for all Ohioans by expanding access to learning opportunities, assisting colleges and universities in their capacity and effectiveness to use technology in instruction, supporting leading-edge activities, and

facilitating partnerships and collaborations among higher education, schools, business and industry, and local communities (p.2).

This mission statement indicates that the OLN is charged with expanding access, supporting existing colleges and universities, and fostering collaboration among its partner institutions, which consist of K-12, business and industry, and local communities, as well as the higher education sector. Unlike KYVU, OLN treats higher education institutions, instead of students or learners, as the primary constituency.

A new strategic plan in 2006 slightly revised the mission, declaring, “OLN works with higher education, schools, policy makers, business and industry, government, and local communities using technology to expand educational opportunities for Ohioans.” Interestingly, this statement added government to the constituency, and replaced “expanding *access*” with “expanding *educational opportunities*,” which suggests a switch of learners from people who traditionally would not have access to higher education to all interested in learning online, including residential students.

The new strategic plan also indicated that “OLN works to reduce the Ohio education deficit through its projects and programs by providing 1) access to e-learning and services supporting e-learners, 2) continuous policy improvements, and 3) professional development to faculty” (OLN website). This suggests that while continuing to provide services to students through institutions and providing services directly to institutions, OLN is shifting to provide some services directly to students.

The CEO of OLN further talked about the priority of the organization:

[The focus of OLN is] on new degree programs and collaborative degree programs....

The services are on institutions first, now more on students through institutions, and

ultimately roughly equally split up among institutions, faculty, and students.... OLN's primary role is not a service provider. Students access a course catalog and then need to go to the institutions for registration. There is nothing but barriers in your way to do that (providing services directly to students). Some services, like financial aid, are complicated and OLN is not in the best position to provide them.

The OLN mission determines its roles. The CEO described OLN as an entity that sought to make a difference through "helping institutions validate changes they are making on campus, helping institutions that are least likely to change or slow to change to see the rest of the world is changing." The dean of a small university that was engaged in the early development of OLN raised the role of policy catalyst the OLN attempted to play, "We have made invalid efforts to try to change the policy. I do not think a lot has been changed really.... That is an area we will be continuing to be a voice, trying to influence change."

Interestingly, nearly every interviewee representing Ohio colleges and universities applauded OLN's role as an advocate for statewide distance education undertaking, a role that was not in the mission statement and but was frequently mentioned by the OLN staff and university administrators. For example, one participant recognized that "The CEO advocates on behalf of the colleges and universities at the Board of Regents and state legislature for our needs." Another expressed appreciation that "OLN participates on behalf of colleges and universities in a political process with the Board of Regents and state legislature, which is something we all can use." Another two persons made the following remarks:

They represent higher education institutions in the interest of distance education. They have become a solid, effective voice to the legislature and to the business community of

Ohio, because I think we still suffer from not having a reputation of performance. They will help us gain that external validation.

OLN staff is capable in working with legislators in terms of maintaining allocations support for its missions, articulating effectively what all they try to do.... [They have done an] excellent job in identifying, capturing, and distributing resources from the Board of Regents for mission-central goals.

An administrator from a private university described OLN as a discussion forum for distance education professionals: “The discussion and structure encourage cooperation and sharing. I came from an institution where people don’t talk to each other, don’t meet. Here it is more open, more collegial between public and private institutions.”

OLN was also held in high regard for preparing member institutions with information that guides its members within the flux of change, as the director of learning technologies research and innovation from a research university commented:

With changes going on here, OLN continues to support innovation, standardization, and cooperation.... Not easy to define where to go with outside structures and changes going on. OLN is doing a great job in keeping up with the changes and getting colleges and universities on track.

The OLN management team consists of five people, including the CEO and four directors responsible for administration and finance, educational access, professional development, and technology. The CEO used to be the speechwriter for the Chancellor and had personal collegial relationships with the state higher education board, which was considered instrumental in helping OLN to maintain a good working relationship with the board and with the higher education sector.

One unique aspect of OLN's internal structure is its five Regional Coordinators located around the state, who "add a more human touch," according to the CEO. The dean of lifelong learning in a small university spoke generously of the role of the regional coordinators:

They would interface physically with human beings that have been known to represent my schools and another school in our southwest Ohio area, and I'd know exactly who to contact at OLN if I have a learner that wants to be able to access two or three other schools in the southwest Ohio region. Or they will do the marketing throughout the state and they generate interest from the students that want to be able to consider degree completion by distance learning or online learning. Their advising specialist will know the options available throughout Ohio and through their e-catalog called *OhioLearns!*. Those specialists would personally build a relationship with those adult students who are out there searching for options.

Relationship with the Ohio Board of Regents

The state higher education board allows OLN much freedom to act. According to the CEO, "The Board of Regents founded OLN, but they don't oversee our daily organization, so it's not a hierarchy. We're here, we support institutions, and we can likely influence what they do."

One OLN director gave much credit to the Board of Regents, who listened to OLN but did not meddle, which was "very critical." Despite the freedom from the Board of Regents, OLN is a part of the state higher education board, not a lobbying group or policymaker, as some people mistakenly perceived. But the freedom and independence are strengths of the OLN in that they made OLN lithe and able to respond quickly to the changing needs of its constituencies (NCHEMS, 2002).

OLN works closely with a large number of higher education institutions, both private and public, through their representatives at various levels. Four committees were established at the founding of OLN, each working with a specific group of administrators or professionals from participating institutions. The committees are chaired by a higher education administrator or professionals selected from within the group, and both OLN and the state higher education board have representatives present in the meetings. It is through its various committees that OLN networks with higher education institutions and fosters statewide collaboration among the member institutions.

Table 4.5

Committees within OLN

Title	Charge	Composition
Governing Board	<ul style="list-style-type: none"> Oversee all OLN projects, activities, fiscal and legal transactions <p><i>Meet two to four times a year</i></p>	<ul style="list-style-type: none"> Provost or Vice President Vice Chancellor from BOR CEO from OLN
Academic Outreach Committee	<ul style="list-style-type: none"> Assist HEIs with the creation of on-line and distance courses and degree programs Assist with the growth and development of OhioLearns! on-line course catalog Assist with the Regional Coordinators' outreach program Assist with related OLN grant programs; and Explore relationships between degree completion and workforce development. <p><i>Meet two to four times a year</i></p>	<ul style="list-style-type: none"> Director of distance learning or library services on campus Regional Coordinators OLN director of educational access
Professional Development Committee	<ul style="list-style-type: none"> Develop an integrated, statewide strategy of faculty development Help foster and sustain the collaborations that unite institutions Gather and disseminate exemplary policies and practices Highlight the crucial role of assessment and the continuous improvement of OLN's educational efforts <p><i>Meet twice a year</i></p>	<ul style="list-style-type: none"> Director of faculty development on campus OLN director of professional development Vice Chancellor of BOR
Emerging Technologies Committee	<ul style="list-style-type: none"> Explore, test, provide access to, and advise the OLN Governing Board and the Ohio Digital Commons for Education (ODCE) on significant and emerging technologies and trends that affect e-learning; Develop a statewide vision for shared collaboration learning environment services; Test open source solutions; and maintain a "Test Bed" of emerging technologies. <p><i>Monthly "meeting" online</i></p>	<ul style="list-style-type: none"> CIO, IT director Representative from BOR CEO at OLN Director of technology at OLN

Partners and Services

In fulfilling its mission, OLN works with a wide array of organizations across the State of Ohio, including the university system, distance learning groups, instructional technologies groups, higher education consortia, as well as 83 non-profit higher education institutions, both private and public (See Table 4.6).

OLN has increased its member institutions from 74 in 2002 to 83 in 2007, an increase mostly in the private sector. The partner institutions represent 85% of academic colleges and universities overall in Ohio. Among the 83 institutions, about two thirds are from the public sector; four-year institutions outnumber their two-year counterparts in participating in OLN, an interesting contrast to the national trend that two-year, smaller institutions are more likely to participate in state consortia than four-year, larger institutions.

OLN was not set up to deliver direct student services that were missing in Ohio. Instead, it was established to focus on capacity-building for existing higher education institutions through a set of services and initiatives, respectively, websites, grants, conference, and inter-institution communication and collaboration. By these means, OLN works with students, faculty, and administrators through members institutions.

Website

For many state-level virtual universities, the website primarily serves as a catalog of online courses and programs for interested students. In comparison, the OLN website does much more. OLN maintains a sophisticated website that serves multiple functions, respectively, an electronic catalog, a resource center for faculty and institutions, a tutorial tool for prospective learners, and a communication mechanism for showcasing OLN activities (See Table 4.7).

Table 4.6

OLN Partners

Organization	Description	Composition
Allied Organization	A relationship that involves close cooperation and implies joint rights and responsibilities	<ul style="list-style-type: none"> • Ohio Digital Commons for Education Partners • OhioLINK • OSCnet • Ohio Supercomputer Center
Strategic Alliances	A strategic connection between organizations with common interests and to further common interests	<ul style="list-style-type: none"> • University System of Ohio • Ohio Board of Regents Technology Initiatives program • Ohio Community Computing Network (OCCN) • Ohio College Access Network (OCAN) • Ohio Broadband Council • EnterpriseOhio • eTech Ohio • Ohio College Tech Prep
Higher Education Consortia	Information and resources brought to Ohio by associations and consortia representing higher education's needs and issues.	<ul style="list-style-type: none"> • The Ohio College Association • Southwestern Ohio Council for Higher Education (SOCHE) • Greater Cincinnati Consortium of Colleges and Universities • National College Access Network (NCAN) • Ohio Association of Community Colleges • Association of Independent Colleges and Universities of Ohio • The Ohio Foundation of Independent Colleges, Inc. • Northern Ohio Transfer Council • Southern Ohio Transfer Council • Inter-University Council of Ohio
Higher Education Institutions	83 colleges and universities across the State of Ohio	

Note. This table was compiled based on data from the OLN website.

Table 4.7

A Summary of the OLN Website

Function	Description	Audience
Electronic catalog: OhioLearns!	<ul style="list-style-type: none"> • A single point of access for students • State-wide catalog of distance learning courses and programs • 211 degrees and certificates • 4,100 courses • Over 350,000 users annually 	Students
Tutorial Software: E4ME	<ul style="list-style-type: none"> • Month-long non-credit online course to get a sense of what online learning is about • Jump-started 2500 adults into online learning 	Students
Resource center	Information on: <ul style="list-style-type: none"> • Innovative teaching and learning • Emerging technologies • Advocacy of quality 	<ul style="list-style-type: none"> • Faculty • Administrators • Distance education professionals
Communication and marketing	<ul style="list-style-type: none"> • Quarterly newsletter • Online ListServ on innovative teaching and learning • OLN initiatives 	<ul style="list-style-type: none"> • Faculty • Administrators • Distance education professionals • Students

When asked about the incentives for participating in OLN and the factors leading to OLN’s success, representatives of member institutions constantly referred to the services provided by OLN. For example, information and resources on distance education were highly valued, as a former member of the Academic Outreach Committee mentioned, “The resource they have on their website has become much more robust and valuable.” An administrator from another institution agreed:

I would say there is a huge amount, a vast network of resources that would be missing, that could hardly be replicated anytime soon. And it would take any one person nearly a

year to go find, resolve what they have already uncovered in the network and in the report... I would have to say for one example, shared faculty development. We have some of the best and lowest-cost, next to nothing, some of the best (resources) on faculty development, on technology, on how to teach and develop online courses, on program development that I haven't seen anywhere in the country.

E4ME, a month-long non-credit course about online learning, was another piece that OLN took great pride in and member institutions spoke highly of. According to an institutional representative, "E4ME lets students see whether they've got the skills for learning online. It seems to be a successful area."

Grants

A major OLN activity is providing funding opportunities to postsecondary institutions in Ohio to encourage the development of web-based content in areas of need and to foster collaborative activity in terms of distance learning. Grants create replicable, sharable courses, modular instructional programs, certificate programs, degree programs, and learning activities (See Table 4.8). An institutional match of 50% of total grant funds has been critical to the success of the total endeavor.

Table 4.8

A Classification of OLN Grants

Type	Goal	Year
Emerging Needs Grants	<ul style="list-style-type: none"> • To create and enhance distance-learning content in areas critical to the Ohio work force 	1999
Partnership Grants	<ul style="list-style-type: none"> • Provide professional development opportunities in the integration of technology into the curriculum • An institutional in-kind match of funds required • Collaborating partners to identify the resources and capabilities they each bring to the project under consideration for funding 	2000
Research Grants	<ul style="list-style-type: none"> • To answer two questions. • Question 1: Under what conditions do distance learning opportunities lead to increased learning as defined by traditional and non-traditional measures, with results of specific application to Ohio's higher education institutions? • Question 2: What exists in the research literature that can be applied to Ohio educators and students regarding the conditions under which distance learning succeeds? • Kent State University Research Center for Educational Technology (RCET) authorized to manage this grants program. 	2001
Emerging Needs	<ul style="list-style-type: none"> • Explore and test significant and emerging technologies (ET) and trends that affect e-learning 	2001-2003
Learning Community Initiatives	<ul style="list-style-type: none"> • Better enable Ohio faculty better to enrich student learning via technology • Share digital resources created by each of the communities • Faculty and other partners who make up the learning communities are given opportunities during the year to meet other grant recipients, exchange ideas, develop professionally, network, and share accomplishments and challenges. 	2002-2008
Course Redevelopment	<ul style="list-style-type: none"> • Allow campuses to redesign <i>courses</i> with high enrollment to improve the learning experience 	2007-2008

Note: This table was compiled based on data from the OLN website.

Since the grants program was launched in 1999, a total of nearly 12 million dollars has been awarded to participating institutions in supporting online education initiatives on campuses.

Half of the grant funding has gone to collaborative courses and degree development, resulting in 28 new programs available at a distance. The grants were also reported to have supported 1,490 Learning Communities initiatives that involved more than 3,000 individuals from 49 institutions that provided faculty and staff development, hence transforming practices on campus and improving teaching and learning environments.

The two figures below provide an overview of the grants programs that OLN administered between 1999 and 2008. During this period, OLN awarded a total of 270 grants to its members. In 2007 alone, it funded 60 projects on distance learning. The amount of grants reached slightly over \$13 million, with more than \$8 million going to Emerging Needs grants (63%), \$2.3 going to Learning Communities grants (17.7%), and \$1.2 million to Professional Development grants (9.5%). Workforce development planning received the least amount of funding at \$66,791. The remaining amount was evenly distributed among Technology Initiatives, Research Grants, and Learning Institutes, each around \$400,000. Except for 2005, the grants were awarded each year, and the number of grantees ranged from three in 1999 to 60 in 2007. A review of the grantees indicates that higher education institutions of all types in Ohio were represented, therefore leading to the conclusion that no particular institutions were favored.

Figure 4.1

Number of Grants: 1999-2008

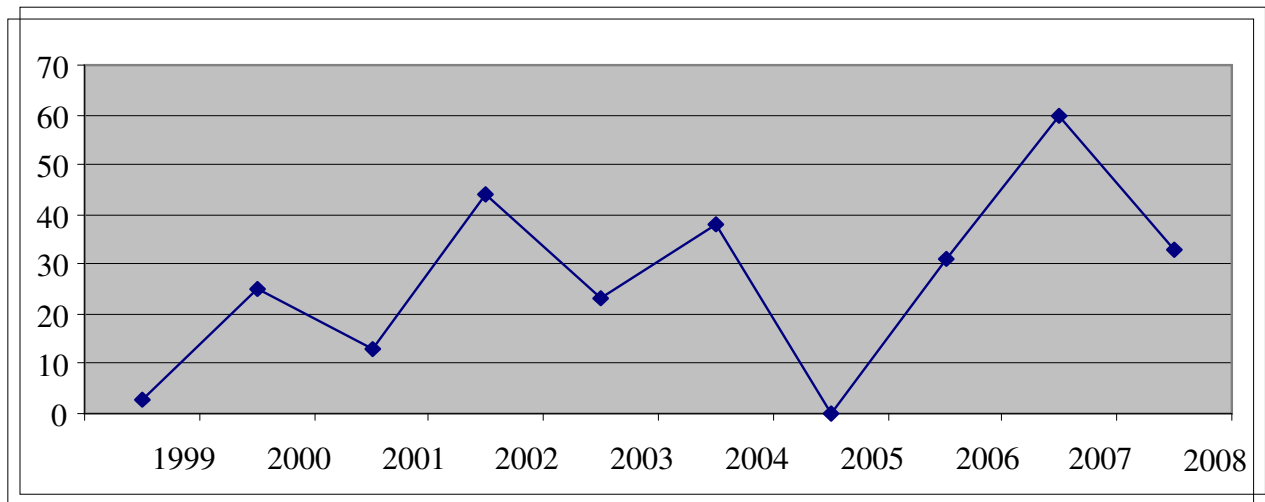
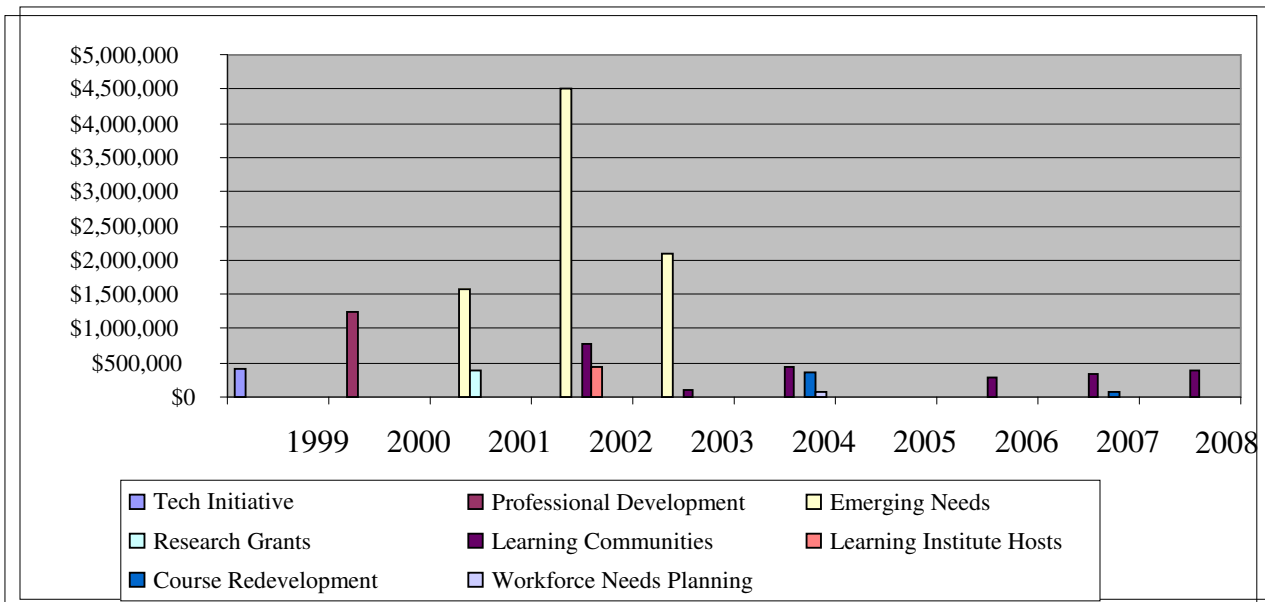


Figure 4.2

Amount of Grants: 1999-2008



Overwhelmingly, the biggest catalyst and success of OLN has been grant funding. According to the assessment of OLN conducted by the National Center for Higher Education Management System (NCHEMS) in 2002, the top three services in importance all had to do with grants. Based on the interviews with representatives of member institutions, this study echoes this finding of the NCHEMS study.

One question was raised, however, regarding the lack of accountability toward the grants program. An institutional participant who served as a committee chair shared his concern,

One of the things we have done is we provided funding to the institutions to develop their online programs, but we often don't follow up with institutions to see what has been done with the money they received. It has encouraged participation by providing grant dollars to the institution, but I do not think it has done as good a job as it could with follow-up on what happened to the money once it was distributed.... We need to have some accountability for the funds we distributed.

Annual Conference

The Ohio Learning Network has held annual conferences since its inception in 1999. The first conference, Navigating Ohio's Technology Roadmap, was held in November 1999 shortly after officially opening its doors and over 150 people participated. The subsequent conferences witnessed a steady increase of attendees with the 2008 conference attracting 385 people. In the study by NCHEMS (2002), the conferences were cited several times as evidence of success and increasing participation in OOLN, a theme that was confirmed by this study.

Inter-institution Communication and Collaboration

Through sending representatives to sit on OLN committees and developing collaborative online courses and degree programs, higher education institutions have been able to create

partnerships with OLN, with peer institutions, and with other state entities that are also involved in OLN. This networking function was especially helpful to smaller institutions. According to an administrator from a four-year institution, “The discussion and structure encourage cooperation and sharing. I came from a place where people do not talk to each other, don’t meet. Here it is more open, more collegial between public and private institutions.”

His colleagues added,

I have to say, coming from a small private school, we couldn’t do anything near the kinds of development, thinking, ideas, and concepts without OLN. We would not have known about some of the forward, cutting-edge kinds of discussions. We would deal with one or two, but they (OLN) have a whole network, and people are looking at everything.

Higher education institutions also benefit from the leveraging of cost by being part of OLN. For example, OLN provided statewide discounts of up to 25% off the original cost of educational technology software, saving campuses more than \$117,000 annually. It also aggregated services to provide a 35% discount in cost for Smarthinking, an online tutoring software, allowing institutions to offer 24/7 tutoring to distance learning students.

As OLN works directly with higher education institutions, students and student services fall within the institutions’ purview. As a result, there are no reliable statistics about the number or characteristics of students taking distance courses through OLN. In addition, OLN does not provide many student services except for electronic catalogs and E4ME. An administrator from a four-year institution expressed hope for more student services:

I think it can provide more student services. I know they are beginning to do that, but I think there is more work to be done. When the students go to the OLN catalog to look at courses or programs, I think they need some better, a little bit more detailed information

to help them enroll in courses. So I think they need to provide a little bit more student services, and I don't know specifically what that would be. Like I said before, we do a lot for institutions and we need to do a little more for the students.

Conflicts and Challenges

In spite of positive comments on OLN's performance overall, both the OLN staff and university administrators reported difficulties with collaboration among higher education institutions, collaboration beyond online courses, and assessment of the outcome of collaborations.

Inter-institution collaboration

Unsurprisingly, collaboration was reported as challenging by the interviewees, yet the reasons they gave differed. Several people talked about the difficulty of developing collaboration in a state with a weak state higher education board. A university administrator pointed out: "One area that is a challenge is in building collaborations across institutions. The Board of Regents is a coordinating board, having relatively less influence on colleges and universities." Two OLN directors provided their view:

We are not a very strong central governing board. These are the biggest issues.... Ohio is a bunch of institutions that have no system. They are individual institutions, very decentralized. That presents challenges.... We are constantly trying to find ways to find institutions collaborate, develop collaborative degree programs. There are not a lot, because it is difficult; individual campuses have individual missions, money issues, and political leaders. It is difficult. An organization like ours tries to step in and become a catalyst or rally point around some of the collaborations that could happen.

Three institutional administrators attributed difficulty of collaboration to the nature of higher education institutions. The dean from a four-year university put it nicely:

My personal observation is that while everybody has good ideas about collaboration and it sounds like a good thing to do. The reality is schools exist to protect their own territory and protect their own instruction, credit loads, and so on.... OLN has been putting a limit on that; that definitely has been testing the policy-decision makers. Until those kinds of things really change, it is going to be an uphill battle.

His colleague from another university agreed, “Barriers lie in that institutions are both competitors and collaborators. We all have some similar and different missions so that they cannot talk together equally well on different issues.”

Another institutional representative offered a similar point of view: “Each of the state institutions is operated independently and very structured and traditional in their approach. I think this nature of the institutions is probably the biggest factor.”

Partly because of this political factor, there were reportedly times when the people on the committee were ready to collaborate only to find that their boss on campus was not, as one former committee member of the Academic Outreach Committee briefly expressed: “We collaborate, yet the administration of the colleges and universities do not necessarily collaborate as well.”

The CEO of OLN was fully aware of the challenge of bringing out inter-institution collaboration when she simply commented, “In reality, you cannot force people to collaborate.”

Shift from courses to programs

Another challenge is to complete an electronic catalog of programs to be offered at a distance. After nearly a decade-long development at the course level, the focus now is shifting to

programs, yet at a very slow pace. The provost from a regional university stated, “Emphasis was first on the course catalog to get the idea of courses online; now it needs to emphasize programs online.” The director of distance learning from a flagship state university made this observation:

A delicate balance exists between supporting individual courses and trying to build programs in the distance.... The focus is on programs, but the contribution of catalog has been more course-based than program-based.... There has been a lot of success with two-year institutions, but fewer examples of baccalaureate programs.

Outcome assessment

When asked to self-evaluate the performance of the OLN, its CEO gave the score of 4.25 out of 5, “We lost the 0.75 because of lack of measurement or a better reporting system.” A former chair of an OLN committee and administrator from a research university explained:

Not being a degree-granting institution provides an advantage for OLN. It is primarily a broker of institutionally offered programs. For that reason, it does not have access to enrollment figures across the board. It conducts a market survey. It determines where there is an audience for distance education programs in a discipline. It requests proposals and supports institutions to create such a program. At that point the learning network’s ability to track that process is limited, because from that point we presume, hope, trust that students will register, participate, take courses in the program that has been developed. I believe there is a strong interest in the Board in developing the ability to track participation to a greater degree than in the past.

Due to lack of a data reporting regarding distance education, an OLN management team member acknowledged,

Outcome data (completion) is hard to get.... We measure the value by the number of grants issued. No data as to what they actually did, or number of courses and faculty participating in training.... We have statistics with enrollments via OLN, but we do not have a whole picture with distance education enrollments overall.... We need to find a way of reporting data on course enrollment and completion.

State coordination of distance education

When asked about whether OLN was leading a distance education coordination system at the state level, the CEO responded that this was not the case, saying, "Coordination suggests things we are not doing." She added that to her knowledge there were no states with a coordination system of distance education in place.

Institutional administrators who were asked this question provided similar answers. A dean of lifelong learning at a four-year institution considered OLN was leading a coordination system of distance education in the sense that "It helps institutions meet their distance learning goals, and it helps students find distance learning opportunities." However, he claimed, "Having a coordination system of distance education is challenging, if workable, in the U.S."

One former member on the Academic Outreach Committee responded firmly, "It is better off being a facilitation system than a coordination system." He further explained,

When you say collaboration, it is kind of supervision, certification, authentication, and another state piece that is very complicated. The Board of Regents also approves our offerings, including distance education. Distance education, like traditional offerings, is guided by the Board of Regents. Having another agency coordinate and supervise distance learning would probably add too much oversight yet too little value. The question is always how you better manage, better serve Ohioans at a cost that is

affordable. Making it user-friendly, promoting its standardization should be the main area.

Meaning and Value

When asked whether OLN was reaching its original goal, an institutional representative who was actively involved in the development of the organization recalled the early vision:

I do not think I am exactly sure what it said it would do.... Let me give you an example. My particular mindset is always on adult learners because that is my representation. One of the ideas was that if we launch the online courses and promote them in the catalog, and make sure they are offered at a distance so as to be accessed from anywhere in the state at any point of time. The thought was if we did all of those, we would be better able and better prepared to serve that 1.5 million adults in Ohio who went to school but never finished. That was the theory. So at one point of time we went and looked at what we did not accomplish over two years in terms of counting, a quantitative assessment. Do we have more courses in the catalog than we did last year? Yes. Then we looked who is taking the courses.... They worked on several projects to do that but I am not all that familiar with them. But what I was getting at is in one of these reports, one of the schools clearly said that at their school, the bulk of students taking their online courses are students living in dorms on campus who are taking these courses because they don't have to get up at 8 o'clock for class. We looked at each other and thought, Great! We are successful. We have built a network for student enrollments, but they are the same students who are already on campus!

The fact that online courses are being taken by residential students, instead of by "new" students who would not otherwise be able to access college courses, seems to be a national trend.

The challenge, then, is if wider access is not being achieved, what value attaches to distance education and to statewide distance education entities such as OLN? In the words of OLN's CEO, "How to define access? How to provide service to Ohioans? How to raise the level of college attainment?"

Summary and Discussion

The Ohio Learning Network was created in 1997 following the recommendation of a statewide committee on the use of technology to expand educational opportunities for Ohioans. Prior to the launching of OLN, deliberate planning was undertaken and a strategic plan was devised to guide the work of this organization.

Interviews with OLN participants were light-hearted, as OLN staff talked about their work with much pride and enthusiasm, and their colleagues from member institutions filled the conversations with descriptions such as "good," "great," "phenomenal," or "excellent," all indicating approval of and satisfaction with OLN's performance. Structural and human resources frames were employed to summarize the favorably perceived aspects that have contributed to leading OLN to where it stands today after a decade-long journey.

From the structural perspective, OLN has been successful in soliciting support for distance learning from the state on behalf of higher education institutions. OLN would not have been likely to take off without the state attaching value and funding to distance education. Support from the state was cited as a big enabler. For example, a university administrator who was involved in OLN since its launching made this observation:

I think the main one is that the Board of Regents and state legislature have both expressed the value in distance learning, in use of technology in delivering education. Not only their

support, but also their understanding of the value of technology. When the state thinks it is valuable, it is willing to put money in it. It is a big factor.

Two other colleagues agreed that generous funding put OLN at an advantage compared to its peers in other states, as one put it in a straightforward manner:

I would say, to be blunt, that it has been well funded. There is a good amount of money available to OLN from the state that has allowed the organization to do what it needs to do. I think a factor is that you've got the money to do what it needs to do.

OLN's function as an advocate for distance learning in the state was recognized by university administrators, as indicated by their own words: "Excellent job in identifying, capturing, and distributing resources from Board of Regents for mission-central goals. It is a quite successful model." Or, "OLN participates on behalf of colleges and universities in a political process with BOR and state legislature, something we all can use". Or, "The development staff is capable in working with legislators in terms of maintaining allocations support for its missions, articulating effectively what is all they try to do."

From the human resources perspective, a non-intimidating approach, a competent staff, quality services, and effective communication accounts for the harmonious relationship between OLN and member higher education institutions. The institutional representatives constantly referred to the OLN or its initiatives as "we" or "us" in the interviews, indicating a strong sense of family.

Specifically, The OLN management team was given a high score for its efforts, especially the CEO. A OLN member spoke of the CEO's impact on the organization:

I think [the CEO]'s relationship with the Board of Regents is great.... She is funny, she is a leader, and she is great. Good politics helps guide the organization.... They (higher education institutions) have a lot of respect for her, and that is critically important.

Institutional representatives shared similar opinions, and they especially respected the way the CEO dealt with member institutions, as one person briefly put it, "She balances out the top-down and bottom-up approaches very well." She was also given much credit for speaking on behalf of the higher education community: "The CEO advocates on behalf of the colleges and universities at the Board of Regents and state legislature for our needs," according to the former chair of the Emerging Technologies Committee. Other managers at OLN received recognition as well. One OLN director acknowledged, "Good will toward the work and toward people we work with has generated a lot of possibilities. People see us as responsive, helpful, and professional." Her comments were shared by institutional representatives. One long-time participant in OLN agreed that "OLN is doing a good job. People in OLN are naturally very engaging people. They identify common needs and respond to needs.... They have gone out of their way to make contacts with institutions, to keep institutions informed."

As stated in the section on OLN services, member institutions recognized the value of OLN services for students, faculty, and administrator and distance education professionals. The most frequently cited services are grants, information on the OLN website regarding teaching and learning at a distance, and an annual conference on faculty development.

Communication is important for any organization, especially so for an entity like OLN that relies exclusively upon partnerships with higher education institutions. As an OLN director simply put it, "We need to maintain good relationships with institutions." The staff reported that "we had very direct contacts with presidents to support us." The four committees involved in the

OLN activities worked with various groups at different levels on campus. Although OLN does not include faculty in its committees, its director of professional development programs “makes direct connections with faculty about what OLN is doing and what faculty are interested in.” There was an online listserv for specific groups; experts in their areas were hired as mentors to moderate online discussions. By doing so, “we are trying to keep those communities, resources together.... We’re trying to help groups to get the information and spread out the information.” As a result, “they’ve done a great job in maintaining a strong relationship with institutions,” observed a university administrator who worked closely with OLN.

A decentralized, instead of centralized, approach proved to be working well in the case of OLN. The CEO of OLN explained, “Being a consortium, you can only lead as far as the organizational members are willing to follow. It is a delicate balance. NO dictating. We don’t do that. If you are willing to do this, I’ll give you the money [to start the program].” Her view was echoed by a former member of the Academic Outreach Committee: “OLN operates on a consultative principle and they listen to the constituencies.... They try to persuade us to do the right thing, instead of dictating us.” The director of distance learning at a four-year offered her observation:

OLN was never designed to be a virtual university in itself, but to be a collaborative. The Regents degree is going to centralize a little bit, but will remain to be decentralized across the state. A strong centralized organization will be a threat to the institutions. Because of its decentralized and collaborative method, OLN has been able to grow faster and stronger.

University of Texas TeleCampus

Historical Context

In May 1996, Andersen Consulting was hired by the chancellor of the University of Texas (UT) System to perform a six-month study on possible opportunities for collaboration within the UT System in information technology. A final report was given to the UT System in November 1996, and the report presented recommendations for the UT System with regard to the implementation of information technology strategic initiatives among component institutions. One recommendation was to “develop a technical and applications infrastructure to support distance education for UT System components and link to national and international initiatives, and to use distance education to develop and share skills and apply them to enhance existing learning delivery mechanisms” (UTTC, 1997, p. 2).

The recommendation was adopted by the chancellor, and the Distance Education/Virtual University Master Plan Organization (MPO) was created and began work in January 1997 to prepare a master plan to identify a definitive strategy for the future of distance education in the UT System. The MPO conducted a series of surveys, meetings, and campus visits. A baseline survey instrument was designed and distributed to each campus that gave the MPO information about each component’s ability to offer courses at a distance. The input from system campuses suggested that “a central key to the success of such a unit, as with any information technology initiative, will be a clear focus on infrastructure, not the end product”. It continues, “With a solid infrastructure, the unit will be prepared to provide to the component institutions new delivery options and services as they become available” (UTTC, 1997, p.3). Central to the core design of the TeleCampus is service, and the necessity to provide increased access to education without

ever compromising the quality and integrity of the educational offerings, their tradition, or the educational mission of the universities within the UT System.

After nearly two years' planning, the UT TeleCampus (UTTC) was launched in May 1998. Consistent with its service orientation, the UTTC spent its first year developing services and infrastructure that would support students and faculty in distance education settings. The UT TeleCampus is a central support unit that facilitates distance education initiatives within the University of Texas System. The UT TeleCampus staff develops, supports, and promotes distance education programs and courses to further the UT institutions' goals of providing more access to higher education for the residents of Texas and beyond. The UT TeleCampus does not award credit or degrees, but facilitates collaboration among the universities by providing cost-effective tools, methods and services for distance education.

UTTC is nationally recognized for its inter-campus collaborative degree programs and for the expansive array of student services offered in support of the distant student. Students apply to the campus offering the program they wish to take and graduate from that campus, but receive courses and support centrally via the UTTC for cost-savings and efficiencies of scale system-wide. The same general admissions criteria that apply to the on campus program apply to its online equivalent. UTTC offers more than 25 graduate and undergraduate programs with more than three dozen certificate and degree options as well as a growing menu of professional development courses. Completion rates in UTTC-based academic programs range from 91% to 95%. Fall and spring semesters average more than 4,000 enrollments per semester. Most graduate students are truly distant learners and busy working professionals, while most undergraduate students are taking on campus courses and need the online course for scheduling flexibility. The exceptions are the bachelor degree completion programs that serve working

adults in criminology, criminal justice, and allied health services. Students range in age from 17 to 60 plus, but most are from 20 to 40 years old (UTTC, 2002).

Since its launching in 1998, UTTC has facilitated more than 56,000 enrollments. This has generated more than \$60 million in tuition, fees and formula funding for the campuses offering these courses. UTTC partners with the same faculty who teach on campus, and provides a full spectrum of training and support services for both faculty and students. UTTC also provides grants to UT institutions to help fund course and program development, including faculty course release time, instructional design support, and course production (UTTC Website).

Mission and Organizational Structure

According to the official website of UTTC,

The mission of the UT TeleCampus is to extend the reach of the UT System through the application of high-quality, student-centered Internet delivery to degree programs, academic courses, training, professional development, and college preparation. The UT TeleCampus adds value by assisting UT System institutions in expanding existing capacity, building new capacities, and preparing faculties to best teach in a technology-mediated environment. The UT TeleCampus identifies, develops and disseminates innovative and solution-based models and best practices for effective distance teaching and learning.”

This statement indicates that the primary mission of UTTC is broadening access to higher education, the primary constituency is higher education institutions within the university system, and the emphasis is on offering degree programs instead of individual courses at a distance. Specifically, the goals are increasing access via technological solutions, facilitating collaborations and partnerships within the UT System, providing centralized services and

infrastructure for online learning within the system, and assisting campuses in enhancing quality and capacities in the field of online learning.

The CEO of UTTC described the organization as “providing centralized resources, [being] service-oriented, and building collaboration,” which distinguished it from its peer state-level virtual universities. She then provided a brief historical review of UTTC’s development:

The original role was to better coordinate distance education in the UT System, which consists of 15 campuses and two health centers. All (system institutions) had all kinds of distance education offerings. The first couple of years we focused strictly on the academic side. I would say all were very active with us....The first thing was to better coordinate services beyond distance education. In one year we started building online degree programs.... The goal got switched a little bit into where we became a centralized aggregator of services and point of access to collaborative degree programs and provide the support behind those programs for students and faculty. Now the TeleCampus sees itself as a collaboration agent and a resource for the campuses that are building degree programs. It is probably also seen as a way for the student enrollment program even though they are getting a degree from a campus within the UT System. They are getting all the services they need from us. Therefore, individual campuses have no need to create the same services. We are really centralizing the resources.

She then added, “We have learned that our model is different from University of Phoenix: no adjunct professors; it [our model] does not focus on enrollments, but on quality.” Quality enforcement is a unique aspect of UTTC and a topic that came up frequently during the interviews.

In addition to service providing, several UTTC staff described its role as a facilitator and the importance of building networks:

A role TeleCampus can play is facilitating, be a mediator, and bringing people to the table who might not otherwise come together.... In many ways, we are facilitators of actions. To do that well, you have to have a network. That is what we have been able to develop.

Both UTTC staff and participating institutions noted the organization's switch of focus from higher education to other sectors such as K-12, largely due to reductions in the budget from the UT System. According to the assistant provost from a large campus that was not active in the UTTC collaborative:

Its mission has changed. It started with being involved in developing degree programs. They have moved out to the area of teacher education, certification-related things, continuing education programs. I do not think at the very beginning that was the plan. That is the good thing of TeleCampus, which is its leadership. They are very sensitive to the environment change. If you do not do that with online learning, you are a failure.

A UTTC manager concurred with the CEO at UTTC that the switch in mission was "money-driven":

We started doing the contract work about six months I got here.... Part of it (working for more revenue) was internal, part was external. The UT system said, "Well, we really need you to not take money away from what is called the bill of the university fund." We need to be a break-even operation, but they have asked us to be less dependent upon university funding.

He then introduced some of the contract work UTTC conducted for its non-academic sector and the value of this kind of work to people in Texas and for UTTC itself:

I hope our primary focus will always be on academic credit-bearing programs, but I understand we also have to help the campuses with other professional development courses. For example, professional development courses for our medical schools.... We are also involved with the K-12 sector, helping 11th graders pass a state-mandated test that they have to pass to graduate from high school. It really serves people in Texas, and it helps prepare kids for college. Is that our mission? Sure. For me I really enjoy working with academic programs, but I understand there is a dollar side of this equation.

Sometimes you can also support your organization through professional development programs.

His colleagues at UTTC all expressed their concerns about the focus switch and the challenge of staying focused. For example, one person was conscious of the “difficulty of being pulled in multiple directions”:

For two years, we operated in an online-product support for the K-12 population. We did collaboration with state agencies. That has been quite successful for us, but has caused many discussions among the management: What is our mission? How do we validate the core resources.... I think the better you get at what you do, the more people expect you to do, or want you to be all things to all people.

A UTTC manager agreed, and she attributed the mission inconsistency partly to leadership turnover at the system level:

We cannot be all things to all people. Each time you have a new chancellor come in, they have different ideas of what we have to do, and what have to be. Then we have more

pressure when they come to money. In the past, we had complete support and all that, now we have to find ways to fund ourselves. But we cannot be all things to all people. We do not have that much staff. We are trying to take care of three to four thousand students every semester, so that is a challenge. Right now, I think we are at a good place. Right now, I think we have that happy balance. But who knows if you get a new chancellor, that could change.

There were concerns within the UTTC as to what impact the contract work would have on the organization in the long term, but some of its managers acknowledged that doing the contract work may not be in odds with the original missions. The CEO simply stated: “It turns out that the TeleCampus was recognized by the campuses as the expert to do that. It is very much in support of direct work on campuses.” A UTTC manager added,

That also adds to trying to figure out what you are going to do and what you are going to be. That is hard, because we still think of our primary audience being the academic side of things.... We consider ourselves here to serve the institution, so you know that is our thing.

In contrast, one UTTC manager embraced the change, as it would allow much more freedom and independence from the state without affecting the original missions, as long as the contract work is limited to 50% of their time:

It makes sense [to work for non-academic sector], because in our long term best interest it is a smart thing to do: then we are less subject to the whips of the legislature or anything like that. They will not touch our operation because this does not cost them anything when we are break even.... [In my unit of course development] actually, about 50% of their time is spent on building contract work for other components within the UT system.

If we get to the point where we are spending more than 50% of our time on this, yes, it could affect our mission. If we start taking on projects that were not related to learning, I can see how it could affect the mission.

Internal structure

UTTC is part of the UT System and reports directly to the Chancellor. Its CEO wears another hat as Assistant Chancellor at the UT System and serves as the liaison between UTTC and the UT System. One thing that makes UTTC unique is that it does not have a governing board for strategic decisions, as is usually the case in its counterparts in other states. Instead, UTTC relies upon a national advisory board that consists of nationally known experts in the field of distance education from across the sectors. According to one of the UTTC managers,

The board consists of people like Sally Johnstone and other national figures in distance education.... They all come from very different perspectives so they all can see very different things.... We tell them what we are doing, and they tell us maybe where we should be looking.... We want people who are familiar with all the different issues that we might deal with.... And they also help us educate our chancellor.

Consistent with its mission as a centralized service provider, the management of UTTC consists of a CEO, an assistant director for finance and administration, and four managers, each responsible for a specific service, including technology and course development, program support service, faculty and student service, and communications services. Each manager networks with a specific group of people on campus to communicate the need and deliver the services.

Campus networking system

UTTC built a sophisticated network with member institutions including people who perform different functions at various levels on campuses. Specifically, the CEO of UTTC primarily stays in contact with president, provost, and department chairs of its member institutions. The Manager of Program Support Services works closely with faculty members teaching online courses and with the oversight committees for online programs. The Manager for Technology and Course Development works with instructional development professionals on member campuses. The Manager for Student and Faculty Services works with liaisons at each UT campus to assist students with admission, registration, billing/payment, financial aid, and veterans affairs issues.

For example, the manager of program support services described the inclusive approach:

We included everybody. We found it very important to keep it that way.... You could not go directly to the faculty, because you have to make sure it is ok with their department chair, with the curriculum committee.... You have to work with everybody, all the way to the president, depending on how the institution is run. I have learned that as we came along.

The CEO at UTTC introduced this approach in more detail:

There are TeleCampus contacts that were appointed directly by presidents on each campus. We communicate regularly. They are our eyes and ears on campuses.... We have liaisons in the registrar's office—employed by the campuses—in the admissions office, library, financial aid office.... We have people in various departments.... Bob (Associate Director at UTTC) and I periodically meet with the presidents and provosts when they are in town. We also go to the campuses. Currently [we are] in the middle of a campus tour right now. We sit down with the presidents and provosts and other people

we work with. We show them our financial [documents], let them know what is coming, and answer their questions.... We also communicate with academic departments regularly.... We send out a monthly communiqué that goes to everyone with any interest in the TeleCampus at all, including all the faculty, and officers and deans, providing an update on what we do. We have been doing this for three years.

The manager for student and faculty services emphasized the grassroots nature of her campus contacts:

We have identified liaisons on each of the offices, people who understand campus system, policies, authorities that can get things done, but who also understand the TeleCampus.... They can log on to the TeleCampus Information System, and they know our process, and they know how things are different for distance learners.

The associate director at UTTC added that in 2004 the organization “started an annual conference for faculty and practitioners to talk about policies and practices related to distance learning,” another way to get the information out and seek input from a wider audience.

UTTC Partners and Services

The UTTC website lists 13 member institutions. Nine of them are academic institutions within the UT System, located in Arlington, Austin, Brownsville, Dallas, El Paso, Pan American, Permian Basin, San Antonio, and Tyler. The remaining are health institutions, including UT Health Science Center at Houston, UT Health Science Center at San Antonio, UT Medical Branch at Galveston, and UT Southwestern Medical Center at Dallas.

Among the member institutions, health institutions’ participation was minimal and therefore was not included in this study. Participation by academic institutions within UT System varies depending on size and infrastructure. Among the system institutions, “Frankly, larger

institutions at the system are minor players at the TeleCampus,” acknowledged the associate director at UTTC. He further added, “[The University of Texas-] Austin has few courses at the TeleCampus. They are a major research I university. They really do not need more students. That is fine.” The CEO agreed, “Yes, UT-Austin is not seeking to add students. So big and so involved in face-to-face curriculum, they are not looking to work with us. Not that we alienate them; the larger institutions can serve their own students and faculty.”

The administrator from a large UT campus was of the same mind:

My university is not as active as other institutions. It contributes to the online collaborative MBA program but does not offer online degrees in that program. It has its own MBA program.... Our courses are at graduate level, and we are not generating “new” students. I have not seen that much impact [of distance education on access].

An administrator from a small UT campus identified demand as another reason: “I know some campuses that have their own [online programs] don’t care for TeleCampus, like Dallas, Austin, Houston.... When you have a population of a million people to draw upon, you might be able to sell every online course without the TeleCampus”.

The director of communications services agreed that UTTC was not created to cater to each of the 15 institutions in the System:

In the UT system, some campuses very much want to create the number of enrollments, and others want to decrease. UT-Austin demands to decrease the number of enrollments, so they are not looking at getting involved with the TeleCampus. However, for the Permian Basin campus, we have about 10% of their student population, so they are very interested in partnering with us for a variety of different purposes.... It varies campus-by-campus.... Think the system as a big family: each of the brothers and sisters has their

own personality, they are all related, all have something that is the same, but each one very much has their own personality and their own needs and their own approaches to life. So that is very much true at the UT system. It is a loose federation of independent campuses. It is kind of a challenge sometimes to get them all to work together.

According to the statistics at the UTTC website, in fall 2007 UTTC had a total enrollment of 5,005, a dramatic increase from 189 in 1999, when UTTC first opened its door to students. Since 2004, the annual enrollment growth averages nearly 11%. Among the fall 2007 enrollments, 44% were at graduate level and 56% were at undergraduate level. For the same semester, 80% of the enrollments were categorized as Texas residents, 16% were from outside Texas, and 6% were international students. As for the age of enrolled students, 35% were reported as between 20 and 25, and the remaining 65% were age 25 or older.

From the very beginning, the UT TeleCampus placed a high priority on providing students, faculty, and institutions with distance learning services in areas such as instructional design and course development, faculty training, technical support, student services, policy development, marketing research and external communications. Table 4.9 provides an overview of the services available for students, faculty, and institutions.

Table 4.9

UTTC Services

Audience	Services
Student	<ul style="list-style-type: none"> • free online tutoring service • free digital library resources and services • free 24/7 technical support • call center for prospective and current students • facilitating student business services (admission, registration, financial aid) and advising with the UT institutions
Faculty	<ul style="list-style-type: none"> • training in instructional design, course management and technology use • free 24/7 technical support • mechanisms for faculty community-building • an online course/instructor evaluation system • facilitating test proctoring
Institution: Program Development Services	<ul style="list-style-type: none"> • facilitating the development of online programs and courses • facilitating the oversight of full degree programs by campus faculty and administrators • promoting collaboration among the UT System institutions • assisting the UT institutions with all accreditation issues related to online degree programs • providing marketing and communications support for online programs, including ad placement, news releases and brochures • provide funding for program development
Institution: Technology Services	<ul style="list-style-type: none"> • providing course management system • research and manage technology for course enhancement • negotiating system-wide contracts that provide lower-cost options for the UT institutions • providing UT institutions with a host of technology services that can be used to enhance on-campus or other education distance courses

Note. This table was compiled based on data at the UTTC website.

Although UTTC directly delivers some services to faculty and students, more often than not they work through member institutions to do so. A UTTC manager: “In many ways we are facilitators of actions. To do that well, you have to have a network.” For this reason, she stressed

the importance of working with “grassroots people” on campus, such as admissions office, registrar’s office, and financial office, as well as working with university administrators.

The manager for student services at UTTC described her work:

My group is responsible for all the communications with potential and current students. It has been a year since we looked at our database. About a year ago, it added up to about 500 phone calls and emails every month, and we deal with all of those. We manage everything related to registration. We have what has called the TeleCampus Information System (TIS), which is a central dataset from all 15 campuses, and our students can use the TIS to go in and register, request for registration, in any course at any campus within the data system. It is our responsibility to put all the course offerings there, to turn it on, to communicate with students, advisors, and registrars about registration process, to help walk people through the process. We do all of that. I feel very strongly about that being one of the keys to our success, in that we offer pretty intensive student services.

The manager for program support services introduced how her division and the course development division supported online faculty in the stages of course development, delivery, and revision:

When we work with faculty, they move between the course development service and my faculty services at different stages of course development and instruction process. After we get them trained, they are working with [Manager for Technology & Course Development]. When that group says, “OK, this course is ready to go,” then they become my responsibility. By that, it means I am responsible for protecting his or her copyright, so nobody gets in the course without either registering or coming through me. If they had any problems during the semester, I would be the person they would be in contact with.

So I am kind of an advisement support. When they are revising their course for another semester, then they move back to my colleague responsible for technology and course Development. So at times, they might be working with both groups at the same time: they might be, for example, for things related to their fall courses they interact with me; but for things related to their spring semester, they talk with the course development group.

Conflicts and Challenges

Both UTTC staff and institutional representatives reported several challenges that UTTC faced, including turnover of campus contacts, difficulties with outcome assessment, lack of local control, and universities' resistance to state coordination.

Turnover of campus contacts

All of the staff in the UTTC was constantly dealing with the fact that their campus contact left so they had to start all over again with the new person who often stepped in with little knowledge about UTTC, if at all. "It is a constant process of educating and talking about our organization," acknowledged the associate director. The frustrations were shared by one of his colleague in UTTC:

We have a very good relationship with the campuses. But I think it is a constant reeducation progress we go through, because, like the MBA Online program, it is a good example. Then you get a new person come in, who was not a part at the beginning. So it is a whole process of having to educate them, all the things we thought about but they weren't there and they haven't been told. There is a lot of educating that we have to do all the time.

Outcome evaluation

There was confusion as to how to evaluate the performance of UTTC. While the mission was to broaden access to higher education using educational technology, the CEO at UTTC believed that,

The biggest challenge is to continuously educate stakeholders, including the Chancellor and the Board of Regents, that it is not always about the number of students. It is about quality, doing things in the right way, and ensuring that the education outcome is being met.

One issue concerning the outcome evaluation is what students to serve: Should they be “new” students or residential students? Does access connote “new” students exclusively? Or, is it legitimate to include students who are able to complete degrees in a timely and/or convenient manner by alternative means? According to a UTTC manager,

We wanted to provide alternative means for people to get their education who would not otherwise be able to. As a matter of fact, we do serve on-campus students, because they like our courses. It fits into their schedules, something they may not be able to take on campus. We need to explain to the chancellor and the president of the institution to realize that anytime a student takes a course [through UTTC], we are helping them get their degree. If they only take one course from us, we are helping them to get their degree, we are helping the institution to get the student through that much more quickly.

Lack of local control

Three UTTC managers reported difficulty of working with people on campus, due to lack of formal jurisdiction, which caused issues that were out of the control of UTTC but had a direct impact on its offerings. For example, one person stated, “Institutions do not follow instructions.

We could not force them to do anything. You know, we don't have any enforcement ability.”

Another person recalled that UTTC experienced problems with online faculty when the first courses were offered, “faculty resisted to come to training workshops at first. So we had to make it mandatory for receiving course development funding.” In the case of the course development division, they worked closely with instructional designers on campus. However,

The instructional designers work for their provost, CIO, etc. So sometimes how we want them to build courses, either technically or pedagogically, is in odds with what their local boss wants them to do.... Also, campuses have different number of courses they offer through us. As a result, they have different levels of staffing. Sometimes they do not give those folks the recognition, the control in order to perform their jobs.

Statewide coordination of distance education

While UTTC had achieved some success with degree programs among institutions, it had yet to bring statewide coordination on policy initiatives. The UTTC interviews brought to light two aborted policy initiatives that might have alienated some member institutions. According to a UTTC manager, “We tried at one time to call for common tuition, especially for the highly collaborative programs. It worked for a while, and then last year we went through what was called a deregulation of tuition. So they are all over all the places right now.”

Another person in UTTC recalled the controversies around the proposal for a uniform course management system (CMS):

Institutions using different CMS are becoming problems, which causes friction. That is when the communication channel becomes so important. Different CMS (course management systems) are becoming a key problem. Working with them is painful and slow. The UT System is very federal, which makes it difficult to get system-wide

common CMS. The most difficult is that none of the 15 campuses uses the same student information system. Therefore, we have to use hybrid student information system in the TeleCampus.... Not successful (in adopting a common CMS)! We convened groups to look at some contracts, but [there is] a lot of resistance to moving from whatever universities are currently using.

Unsurprisingly, when asked whether the system could be better off having a distance education coordination system, the provost from a small UT campus rejected the notion without hesitation:

Service orientation like TeleCampus is the right approach. What we need is facilitation and how to do it in a quality way. I don't know we need any more coordination, which means control, or centralized guidance. Those tend not to be very responsive to the marketplace.

Meaning and Value

In comparison to both KYVU that lacks a clear identity, UTTC has developed to ensure quality of collaborative degree programs to be offered online by member institutions. During the interviews, "quality" and "quality control" came up frequently. Member institutions, whether they were active in participating in UTTC or not, applauded that "UTTC has establish components to ensure the quality of online offerings." The UTTC management team took much pride in their efforts to ensure the quality of online offerings, a step no other virtual university of its kind has taken so far. The CEO posited that she measured her organization by quality, not quantity:

If you ask why we are so successful, it does not have anything to do with the numbers (of enrollments), but with being recognized for high-quality courses.... Because we focus so

much on the quality of courses, we do not have to worry about huge numbers. The course design and development are very strict, specific about what is required in a course. We are here to promote the best practices the Western Commission for Education Technology has adopted. Those courses are high quality and CLEAN and technically renewed and checked before they are launched.

Unlike Kentucky Virtual University or Ohio Learning Network, the UT TeleCampus primarily offers online degree programs, rather than online courses. After the TeleCampus was launched in May 1998, the Regents asked that full collaborative online degree programs be developed. More than half of the TeleCampus budget has been used to fund the development of these online degree programs. According to the aggregated statistics in 1999-2007, the online MBA program had the largest enrollments (9,223) at the graduate level and the General Education program (14,774) took the lead at the undergraduate level.

Most of the degree programs offered in UTTC are collaborative in nature, and structured after several different models:

“(1) one institution offers the degree and other institutions contribute courses to the degree; (2) one institution develops/delivers the degree and contributes all of the courses; (3) two institutions offer the degree and both contribute courses to the degree with the majority of courses coming from the degree granting institution; (4) one institution offers the degree but two institutions contribute courses to the degree with the majority of courses coming from the degree granting institution; (5) four institutions offer four separate degrees but six institutions contribute courses to the degree; and (6) eight institutions offer the degree with all eight contributing equally to the degree program” (UTTC, Sept. 2002, p.5).

For example, the MBA Online follows the last model. The largest and most frequently cited program during the interviews, the MBA Online is a collaborative degree program allowing eight separately accredited University of Texas System business schools to offer an online degree program to meet the needs and standards of each component institution. Faculty and administration from each unit closely supervise the administrative processes. Eight members from the University of Texas system participate in developing this collaborative online program. As with traditional on campus programs, the MBA Online program is committed to faculty governance and is led by the faculty of each participating component institution. Because of the consortial nature of the program, the component faculty representatives form the Academic Affairs Committee. The Academic Affairs Committee serves as the equivalent to the on campus Curriculum Committee (or Graduate Council) and Faculty or Academic Senate. The Chair is elected for a two-year term by a majority vote of the members and may serve no more than three consecutive elected terms. The committee makes recommendations to the Executive Committee on the following: Curriculum, Quality Oversight, Credentialing, Course Syllabi, Operating Procedures, Coverage of Subject Matter, and Assessment and Evaluations. The faculty of the Academic Affairs committee performs a program review of the MBA Online at least every five years beginning in the year 2005. The program review is submitted to the MBA Executive Committee, the Director of the UT TeleCampus, and others, as appropriate. Additional program reviews may be requested by the Chancellor, the Vice Chancellor of Academic Affairs or the MBA Online Executive Committee.

For the purpose of quality control of online degree programs, UTTC created a particular structure to work with faculty and academic administrators on quality assurance. The associate director introduced the structure briefly:

In terms of faculty, all our programs have an Academic Affairs Committee that provides an oversight for peer review. We try not to get involved. Those are composed of faculty from institutions that offer courses and degrees through the UTTC. That program, say MBA, also has an executive committee where the deans of all the business schools get together to make strategic decisions. We are always present at these meetings.

Specifically, an Academic Affairs Committee (AAC) and, in some cases, an Executive Committee (EC) are set up for each program. The AAC consists of no more than two faculty members from each participating institution, appointed by the dean of each respective college. According to the UTTC website, “The Academic Affairs Committee is responsible for the quality of all deliverables associated with the program and takes a pro-active role in ensuring that all content, prerequisites, simulations, and faculty are appropriately selected and properly utilized. In this manner each institution is able to maintain academic control over the quality of the program.” The Executive Committee is strategic in nature and has the responsibility “to set overall strategy and goals for the online program. To demonstrate that each of the institutions accepts the role of the Academic Affairs Committees, each of the degree programs have provided a link from their institutions’ web page to the TeleCampus and if appropriate more information concerning the committee.” (UTTC, Sept. 2002, p. 7)

The provost from a small UT campus recognized the value of the quality control committees at UTTC,

It tries to replicate in the consortial relationship much of what occurs on campus. The Academic Affairs Committee looks at policy and procedures, are primarily faculty, maybe an assistant dean, just like other committees are, but they are primarily faculty. So the comfort level about the learning is there.... The fact is that when they start a program,

it is almost always full-time faculty. They may go and start using part-time and adjuncts, but there is much more oversight than typically occurs, because they have the issues to ensure the experiences are the same.

He went on to express the confidence his school and faculty had in UTTC learning as a result of this quality control mechanism,

They have not tried to be an independent institution. Everything that's been done, for instance, in our graduate programs, is presented to our Graduate Council, so that our faculty who, even though are not in the TeleCampus, are comfortable with what is being done. They are comfortable with the quality.

A top-level administrator from a larger UT campus also applauded the quality control effort on the part of UTTC: "They set up academic and executive committees to request faculty and administrators' perspectives—they do fabulous work."

Summary and Discussion

Similar to the Ohio Learning Network, the concept of UT TeleCampus came from the recommendation of a statewide report in 1997, with a specific focus on possible opportunities for collaboration within the UT System in information technology. After nearly two years' planning, UTTC was launched "to extend the reach of the UT System" through the application of Internet delivery. After a decade's effort, UTTC has been nationally recognized for its inter-campus high quality collaborative degree programs.

During the interviews, both UTTC staff and administrators from four system campuses identified some of the positive aspects of UTTC that attracted the UT institutions to participate in this organization, which fall in the structural frame and the human resources frame, respectively.

From the structural perspective, UTTC has set up a mechanism that enables UTTC to be responsive to the needs of member institutions and make it possible for faculty and administrators to control the quality of online offerings. According to the provost from a small UT campus,

The operation side of the TeleCampus is done by committees of faculty and administrators who are the same kinds of people who will do this on our campus. Those individuals meet at the TeleCampus and they work together.... TeleCampus listens. One of the things we did find out is that the quite interesting thing is that if you have the mechanism, you have quality. If you have a faculty committee who are looking at faculty credentials, they don't care who pays their salary. The TeleCampus sets that up. This provides us with considerable input.

A dean from a large UT institution who was involved in developing an online degree program via UTTC shared a similar observation: "They listen to our faculty, they listen to our directors, deans.... The UT TeleCampus is very responsive."

From the human resources perspective, positive factors include leadership role played by UTTC, financial support from the UT System, relevant services by UTTC, and effective communication and marketing.

Strong leadership

Four people, including both institutional representatives and UTTC staff attributed the organization's achievements to the leadership from the founding CEO at UTTC. An assistant provost from a large UT campus expressed admiration for her work: "They are on the top of everything. The CEO [of UTTC] is totally committed and very good at it!" The liaison at a relatively small UT campus expressed high regard for the CEO and her staff as well:

Much of the TeleCampus' success is due to the persistence and energy of the Director, Darcy Hardy. She has also managed to hire effective staff members, who are not only skilled in technology and management, but are good communicators as well.

A UTTC manager talked about the CEO's expertise on distance learning,

Another factor is of course we are led by (the CEO of UTTC). She has been involved in distance education forever. She is recognized nationally; she has the chance to interact with people in this field from everywhere, and she gets great ideas and shares our ideas [with others].

Another person in UTTC revealed the visionary work the CEO did during the planning and development phase of UTTC:

The CEO worked for three years before offering a single course, setting up the services, contract, agreement, copyright, everything like that. It is very unusual, as I have seen a lot of virtual universities jump into this area and just now dealing with stuff that we dealt with in 1996.

Financial support

The CEO at UTTC recognized the UT System's support, especially in the early years of the organization,

We had very strong support from the chancellor at that time.... And he was willing to provide resources so we were able to build the services.... They gave us money and we were able to offer that money to the institutions to help us develop courses.

For member institutions, especially smaller institutions with limited resources, the grants program in support of course development was most appealing. A UTTC manager explained how the grants worked,

“We pay them, pay their faculty members, and give them course development grants to launch these courses in the first place. Their faculty members get a one course release to write their course over a semester, and their local production shop gets \$5,000 or \$10,000 dollars to develop that course”.

He went on to explain how an online course further helped host institutions to generate revenue,

Once the course starts running, they have all the tuition coming in as well. Because we only take a small amount of money from the universities from running programs, they make A LOT OF money when they run courses through the TeleCampus. Darcy goes to the provosts regularly every year and says, “Let me show you what we need. Last year this is how much we generated for you, and this is how much money you paid us. You just made a whole bunch of money, in some cases, a million dollars or more.” We are a big generator of revenues for the schools out there.

UTTC services

UTTC staff believed that the emphasis on services largely accounted for the success of their entity. According to the CEO, “We focused on services first and made the service structure in place, including libraries, tutoring, etc. We wanted to make sure we offered minimum quality or better quality courses than those face-to-face ones.”

The associate director of UTTC was proud of the comprehensiveness of their services, “from the value perspective, no single institution can provide the scale of services TeleCampus can provide, including Course Management System, 24/7 technical support, 24/7 online library, etc.”

An administrator from a large campus confirmed: “Some institutions really need the services/structures of the TeleCampus. That’s their primary goal [for participating].” This was echoed by representatives from two smaller campuses: “The UT TeleCampus services are very good. This is one of the reasons we could not build the program all by ourselves.... We do not have to build an infrastructure—technological and administrative—to support a full-blown online course service.”

The assistant provost from a large UT campus revealed that although her institution was not active in the UTTC initiatives, “We’ve got particular faculty who prefer to work with the TeleCampus. Really we have received very good advice from the TeleCampus”.

Effective communication and marketing

The liaison at a small UT campus called UTTC “a reliable organizational structure that is helpful and responsive” and pointed out, “The continued communication between the central TeleCampus office and the individual campuses has also helped.” The administrator from a large UT campus noted that besides working with designated campus liaisons, UTTC “also works with other units on campus and communicates with participating universities at every level.” An administrator from a relatively small UT campus held UTTC in high regard in that “the TeleCampus listens.” It is healthy communication that kept member institutions informed of UTTC initiatives and helped UTTC seek input from the institutions.

Good marketing was another incentive for some UT campuses to participate in UTTC. The manager of communications service at UTTC noted that some institutions wanted to “get good marketing help so that people know about their programs.” The campus liaison at a small UT campus acknowledged, “The TeleCampus markets our programs for us.” An administrator

from a large campus complimented UTTC, “They do a great job on marketing, because they’re recognized as national leader.”

CHAPTER FIVE

DISCUSSIONS AND IMPLICATIONS

This study of three virtual universities—Kentucky Virtual University, Ohio Learning Network, and UT TeleCampus—sought to answer three overarching questions:

1. What organizational and governance structures are in place to support the mission of the virtual universities?
2. What strategies do the virtual universities use to engage and serve higher education institutions and targeted audience?
3. What factors have the potential to cause conflicts within the virtual universities?

This chapter answers these questions by comparing the three cases in this study, using the historical, structural, human resources, political, and symbolic perspectives. It then presents lessons learned for the development of virtual universities and discusses the implications for higher education. It concludes with limitations of this study and directions for future research.

Summary of Findings

The table below summarizes the three cases in five dimensions: historical context, structural framework, human resources framework, political framework, and symbolic framework. Combined together, these dimensions provide a holistic picture of each of the three cases. From a comparative perspective, the three cases share many similarities yet are distinguished from each other in various ways.

Historical Perspective

This study echoes previous research (Epper & Garn, 2003; Meyer, 2009) that the push for the three virtual universities all came from the governor or the higher education board in the state or system. All three organizations in this study were launched as a result of a state initiative that sought to broaden access to higher education and bring about collaboration among higher education institutions. Deliberate planning took place in the case of Ohio Learning Network and UT TeleCampus, while Kentucky Virtual University suffered from a planning process where higher education institutions felt ignored. Insufficient communication with higher education institutions in Kentucky during the planning phase led to confusions about the mission and goals of the Kentucky Virtual University and minimal participation in the organization (See Table 5.1).

Table 5.1

Comparative Analysis of the Three Cases: Historical Perspective

KYVU	OLN	UTTC
<ul style="list-style-type: none"> • Result of the higher education reform in 1997 to make higher education accessible and efficient 	<ul style="list-style-type: none"> • Result of a statewide committee recommendation 	<ul style="list-style-type: none"> • Result of a consulting report on possible opportunities for collaboration within the UT System in information technology
<ul style="list-style-type: none"> • Insufficient communication with the higher education community 	<ul style="list-style-type: none"> • Sufficient communication with the higher education community • Deliberate planning prior to launching 	<ul style="list-style-type: none"> • Deliberate planning prior to launching

Structural Perspective

Firstly, all three organizations had broadening access as their original missions, and all revised their mission to some degrees during the decade-long evolution; this shift in purpose for these types of initiatives was confirmed by other researchers (Epper & Garn, 2003; Trigg, 2003).

However, none of these organizations met their original goals of generating “new” students who would otherwise have had no access to higher education; instead, these three virtual universities reported that a high percentage of their enrollments were residential students who took online courses through these entities for the sake of convenience. This finding is consistent with the past NCES surveys regarding the distance education enrollments nationwide (Parsad & Lewis, 2008; Waits & Lewis, 2003) and often research studies (Palloff & Pratt, 2003; Phipps & Merisotis, 2000). In other words, while these state-level virtual universities provided tremendous support to colleges and universities in promoting online learning, they played a limited role in expanding access for new students, a finding that echoed Twigg’s study in 2003.

Second, as far as organizational structure is concerned, engaging higher education institutions is critical for the success of a virtual university. The role of resources involved in building and sustaining a virtual university cannot be denied. All three virtual universities were begun with state funding. While these funds seemed ample, alone they were not sufficient. Building a virtual university is not a simple enterprise, and it cannot be done without institutional commitment, since making the virtual university operational will draw heavily on current institutional resources and support, including personnel and infrastructure (Stallings, 2000; Young, 2000b). All three virtual universities in this study unanimously relied upon various committees consisting of representatives of member institutions. The difference lies in the composition of the committees. Evidently, it is very important to be inclusive: to involve people from various offices at different levels on campus, from high-level administrators such as the president and provost who make strategic decisions to on-the-ground staff such as registrars who are involved in daily interactions with distance education students within the virtual universities. For example, the UTTC staff work effectively with professionals at various levels on member

campuses, including institutional leaders, deans and department chairs, faculty members, and students.

Third, a human touch is important in reaching out to participating institutions and targeted students. The structure of regional centers and regional coordinators in the Ohio Learning Network proved to be instrumental in interacting with colleges and universities and prospective students in their jurisdiction. The UTTC liaisons at each UT campus were highly regarded for reaching out to students and assisting them with admission, registration, billing/payment, financial aid, and veterans’ affairs issues. In comparison, KYVU designated campus coordinators as the liaisons, but these coordinators played a limited role, as they were exclusively distance education directors, instead of representing a variety of offices serving the needs of online students (See Table 5.2).

Table 5.2:

Comparative Analysis of the Three Cases: Structural Perspective

	KYVU	OLN	UTTC
Mission	<ul style="list-style-type: none"> • Access • Mission revised: from central utility provider to facilitator of distance learning 	<ul style="list-style-type: none"> • Access • Mission revised: add on-campus students as targeted learners 	<ul style="list-style-type: none"> • Access • Mission revised: from coordinating system to central service provider
Roles	<ul style="list-style-type: none"> • Clearinghouse • Point of access • Centralized utility provider 	<ul style="list-style-type: none"> • Advocate • Discussion forum • Resource center 	<ul style="list-style-type: none"> • Central service provider • Facilitator
Primary Constituency	<ul style="list-style-type: none"> • From students to HEIs 	<ul style="list-style-type: none"> • HEIs 	<ul style="list-style-type: none"> • Students and HEIs
Focus	<ul style="list-style-type: none"> • Courses 	<ul style="list-style-type: none"> • Switching courses for programs 	<ul style="list-style-type: none"> • Collaborative programs

Table 5.2:

Comparative Analysis of the Three Cases: Structural Perspective (Continued)

	KYVU	OLN	UTTC
Internal Structure	<ul style="list-style-type: none"> • CEO • Director of Finance & Administration • Director of Library Services • Director of Student Services • Director of Marketing 	<ul style="list-style-type: none"> • CEO • Director of Finance & Administration • Director of Technologies • Director of Educational Access • Director of Faculty Development Programs 	<ul style="list-style-type: none"> • CEO • Associate director (Finance & Administration) • Director of Technology and Course Development • Director of Student and Faculty Service • Director of Communications • Director of Program Support Service
Governing Board & Committees	<ul style="list-style-type: none"> • Distance Learning Advisory Committee • Faculty development Committee • Campus Coordinators • Academic Affairs Committee • Marketing Committee 	<ul style="list-style-type: none"> • Governing Board • Faculty Development Committee • Academic Outreach Committee • Emerging Technologies Committee 	<ul style="list-style-type: none"> • National Advisory Board • Quality Control Committees (e.g., Academic Council Committee, Executive Council Committee) • Designated liaison on campus • Campus contacts at every level on campus

Human Resource Perspective

Higher education institutions were the primary partner and exclusive provider in the three virtual universities. All the three virtual universities in this study collaborated with state agencies as well, reflecting the mission transition or “creep” within the virtual university sector (Epper & Garn, 2003). While Ohio Learning Network primarily worked with higher education institutions,

Kentucky Virtual University had to switch to state agencies because of resistance from the colleges and universities in Kentucky, and UT TeleCampus started contract work for the non-academic sector due to the pressure to become self-sustaining. In each case, there was the temptation to become “all things to all people” and the challenge of staying focused while being pulled in different directions. Secondly, although the three virtual universities played different roles, they all had a service orientation in various forms, such as the course and program catalog, technical support for students and faculty, course and program development for institutions, and so on. These services largely attracted the higher education institutions in the first place. Thirdly, communication was the key. Two virtual universities, the Ohio Learning Network and the UT TeleCampus, both went out of their way to reach various constituencies of higher education institutions in multiple ways, such as committee meetings, campus visits, regular newsletters, regional coordinators, and so on. Fourth, the administrative approach by the leadership of virtual universities has a direct impact on their organizations. When the mentality was one of control over member institutions, the virtual university initiatives were more centralized and dictating. When it was one of consultation and collaboration, the virtual university initiatives tend to be more decentralized; therefore member institutions are more likely to respond positively to the initiatives and cooperate with other institutions to adopt innovations. For example, both the Ohio Learning Network and the UT TeleCampus adopted a decentralized, “leading not dictating” approach that was non-intimidating to higher education institutions. Kentucky Virtual University, in comparison, was more aggressive with its centralized, top-down approach to the higher education sector and encountered fierce resistance from colleges and universities (See Table 5.3).

Table 5.3:

Comparative Analysis of the Three Cases: Human Resources Perspective

Audience	KYVU	OLN	UTTC
Partners	<ul style="list-style-type: none"> • Higher Education Institutions • State agencies: K-12, government agencies, etc. 	<ul style="list-style-type: none"> • Higher Education Institutions • Higher Education Consortia • Other technology-related organizations 	<ul style="list-style-type: none"> • Higher Education Institutions • State agencies: k-12, medical schools, etc.
Students	<ul style="list-style-type: none"> • Mostly non-credit-seeking learners for workforce development 	<ul style="list-style-type: none"> • Largely degree-seeking residential students 	<ul style="list-style-type: none"> • Largely degree-seeking residential students
Services Student	<ul style="list-style-type: none"> • Course catalog • 24/7 Technical Help-desk • Online Registration • Call Center • Digital library 	<ul style="list-style-type: none"> • Online catalog • E4ME: a free non-credit course that allow the public to experience what e-learning is all about from their homes 	<ul style="list-style-type: none"> • 24/7 technical support • Online tutoring service • Call center • Digital library resources and services
Faculty	<ul style="list-style-type: none"> • 24/7 technical help-desk • Small grants and awards • Faculty development opportunities • Annual conference on faculty development 	<p>Information on:</p> <ul style="list-style-type: none"> • Innovative teaching and learning • Emerging technologies • Online Listserv 	<ul style="list-style-type: none"> • 24/7 technical support • Faculty development programs • Mechanisms for faculty community-building • Online course/instructor evaluation system • Facilitating test proctoring

Table 5.3 (Continued):

Comparative Analysis of the Three Cases: Human Resources Perspective

	KYVU	OLN	UTTC
Institution	<ul style="list-style-type: none"> • Involving Loan • Course catalog • Providing interface for students to access courses 	<ul style="list-style-type: none"> • Grants program • Resources on distance learning • Annual conference on faculty development 	<ul style="list-style-type: none"> • Program development • Technological services
Communication Mechanism	<ul style="list-style-type: none"> • Committees (inactive) 	<ul style="list-style-type: none"> • Committees • Online listserv • Quarterly newsletter • Regional centers • Regional coordinators • Constant evaluation by outside consultants 	<ul style="list-style-type: none"> • Committees • Campus visits • Surveys • Campus liaisons • Monthly newsletter
Communication Approach	<ul style="list-style-type: none"> • Directive 	<ul style="list-style-type: none"> • Leading, not dictating 	<ul style="list-style-type: none"> • Persuading

Political Perspective

Through the political lens, several factors accounted for the actual or potential conflicts within the three virtual universities. All the organizations reported the difficulty of collaboration, especially at program levels, due to lack of incentives for large institutions (in the case of KYVU and UTTC), concerns about competition among institutions (in the case of OLN), and lack of control of campus personnel (in the case of UTTC). A second issue that surfaced from all the virtual universities relates to a lack of accountability, an issue that was brought up by Epper & Garn (2003) and Trigg (2003). As none of these organizations grants degrees, there is no data reported to these organizations and therefore there is no clear sense of the impact these organizations have made on distance learning in their states. Another issue is the negative attitude the higher education institutions expressed toward the state coordination of distance

education. Consistent with previous studies (Epper, 1997; Zeller, 1995), all of the institutions voiced either suspicion or plain resistance to a statewide distance education coordinating system that would serve as another layer of bureaucracy. The KYVU proved to be a perfect example. Under the heavy influence from the Council on Postsecondary Education, the statewide higher education coordinating board in Kentucky, the KYVU employed a centralized, top-down approach, creating resistance from member institutions. In addition to the issues mentioned above, KYVU was also blamed for failing to keep its mission consistent and to demonstrate leadership.

Table 5.4:

Comparative Analysis of the Three Cases: Political Perspective

KYVU	OLN	UTTC
<ul style="list-style-type: none"> • Inconsistency of mission and goals • Lack of leadership from KYVU • Engagement with HEIs <ul style="list-style-type: none"> ○ Lack of incentives for large universities • Centralized approach <ul style="list-style-type: none"> • The CPE influence • Top-down approach 	<ul style="list-style-type: none"> • Inter-institution collaboration • Shift from courses to programs • Outcome assessment • State coordination of distance education 	<ul style="list-style-type: none"> • Turnover of campus contacts • Lack of local control • Outcome assessment • Statewide coordination of distance education

Symbolic Perspective

KYVU lacked a sense of identity in varying degrees. As noticed by Trigg (2003) and Epper and Garn (2003), largely because of the mismatch between the missions and the activities, there were confusions as to what value these virtual universities added. It is not clear whether they are there to generate new students, to develop more online courses and programs that are in high demand in the state, to facilitate statewide distance education activities, or simply to support

higher education institutions in promoting their distance education initiatives. The OLN participants expressed a strong sense of “us”, were identified with OLN, and regarded OLN as a family for all distance education initiatives in the state. UTTC, however, emphasized its focus on quality, not quantity, and it has set up a mechanism to ensure quality offerings of collaborative online programs.

Lessons Learned

The three virtual universities in this study vary in terms of engagement with higher education institutions. The KYVU was dubbed “a ship without a rudder,” because of resistance from the higher education sector in Kentucky. The OLN was described as a close-knit community, as demonstrated by the sense of “us” when representatives of member institutions talked about the many OLN initiatives and their active involvement. The UTTC stands for a high level of collaboration by its member universities, as demonstrated in the development of collaborative online degree programs by multiple institutions and in the mechanism of quality oversight. Regardless of their differences, each virtual university demonstrated some attributes that were positively reported by the interviewees.

Specifically, all the three organizations recognized the importance of financial and political support, and services for students, faculty, or higher education institutions, including library services, annual conference, grant or loan programs, online resources, professional development, program development, and so on. Both OLN and UTTC were given credit for their leadership and effective communication with member institutions. In addition, the OLN’s “leading, not dictating” approach and its role as advocate for statewide distance education were widely valued by participating colleges and universities. The UTTC received a high score for its emphasis on quality control. Interestingly, the KYVU member institutions reported the same

positive attributes that UTTC and OLN possessed as lacking in KYVU, and they cited these factors as accounting for the conflicts within KYVU.

Lessons learned from establishing and operating a new virtual university may be valuable to those involved in similar initiatives and to those in higher education settings. Based on the analysis of these three cases and previous studies (Carnevale, 2004c; Epper & Garn, 2003; Kirp, 2003; Meyer, 2003; SREB, 2000; Trigg, 2003), the lessons below will assist state leaders, administrators, faculty members, and others involved in virtual universities.

1. Politics, through the influence of governors and the higher education boards in the state (or the system), plays a significant role in the creation and operation of virtual universities.

2. A clear statement of goals is necessary, whether it be broadening access for “new” students, increasing convenience for residential students, or enhancing workforce skills.

3. Deliberate planning is crucial prior to the establishment of a virtual university. It is important to get the concept across to higher education institutions and seek input from them. It is necessary to have a sound strategic plan in place to guide the operation of the virtual university, to stay focused and not become “all things to all people.”

4. Higher education institutions are the primary constituency. It is unwise for a non-degree-granting state-level virtual university to act like a real university through serving individual learners directly or building new centralized services. Instead, a more viable role is to assist higher education institutions in their distance learning endeavors in creative ways such as funding emerging initiatives, facilitating dialogue on state needs, exchanging practices, and encouraging collaboration among member institutions.

5. There exists a power balance. A state-level virtual university is established to lead its member institutions into a new organizational and delivery model. However, as the institutions

grow in distance education staff and infrastructure on their own campuses, they are likely to take greater ownership and control of the operations of the virtual university. Accordingly, the virtual university will need to adapt to this transformation, instead of fighting to take the central role. It needs to be entrepreneurial and constantly look for new niches.

6. It is important to stay accountable. In order to secure support and funding from the state, a virtual university needs to demonstrate the value that it adds to the state and to higher education institutions, whether it is growing enrollments, quality improvement, or new on-demand programs or services. Regular formal and informal evaluations by external experts are needed to measure organizational performance.

7. A successful virtual university identifies the needs of its primary constituencies and provide services in multiple forms for students, faculty, and higher education institutions. Basic services such as a course catalog, technical support, call center, and infrastructure (e.g., a course management system) were generally considered crucial. Grants, annual conferences, and online resources were most valued by higher education institutions. In delivering services, the goal should be to build institutional capacity, not to compete with higher education institutions. It is dangerous to bypass colleges and universities by providing services directly to students and faculty.

8. A sound business plan is important for self-supporting sustainability. State governments provided start-up funds for the launching of virtual universities, but the national trend is that state input has started decreasing over the past years, therefore making it necessary for virtual universities to support themselves financially. Self-supporting services also help a virtual university to be less vulnerable from external influences and intervention.

9. An effective communication mechanism is key, including creating committees with various groups of campus participants in terms of level and expertise, reaching out to all the constituencies in multiple ways, seeking feedback from higher education institutions, and adopting a “lead rather than dictate” approach.

Implications for Higher Education

The findings from this study have several implications for higher education. First of all, there is obviously a gap between the missions and the outcomes of these virtual universities. While the rationale for launching a virtual university is to broaden access through enrolling working adult students who would otherwise have no access to higher education, it seems that this goal has not been achieved, as most of the online students in these three virtual universities were reported to be residential students who lived in dorms on campus. The problem lies in the current structure and environment, in which a virtual university cannot be held accountable for “raising the educational attainment” because the reality is that it serves colleges and universities as opposed to all citizens of a state. As a result, a virtual university can only be held accountable for the extent to which it has helped participating higher education institutions achieve that end. However, “raising the educational attainment” may not necessarily be the goal of its member institutions. According to a survey by the National Center for Education Statistics (Parsad & Lewis, 2008) regarding the factors that affected distance education decisions, 68% of the 1,600 colleges and universities participating in the survey reported student demand for flexible schedule. In comparison, 67% reported providing access to colleges for students who would otherwise not have access, and only 45% reported seeking to increase student enrollments. In other words, many institutions participating in state-level virtual universities simply see no incentives to expand enrollments by reaching out to “new” students. Therefore, it is unreasonable

if a state saddles a new virtual university with unreasonable expectations. For a virtual university to achieve its goal of “expanding educational opportunities,” the state needs to come up with relevant policies to encourage higher education institutions to enroll “new” students in the first place.

There is an urgent need to measure the impact of virtual universities for the purpose of accountability. One reason virtual universities are faced with declining funding from the state has to do with their inability to demonstrate outcomes. To make this happen, two problems need to be solved. First, the concept of “access” needs to be redefined. As early as 1989 Quigley warned that in North America, distance educators appeared to view “access” not in terms of students’ access to education opportunities but as institutions’ access to the “student market,” which seems to hold true for this study. With increasingly more residential students taking online courses through virtual universities, the meaning of “access” is blurring. Some interviewees in this study argued that access should not be limited to “new” students, but incorporate “incumbent” students who are already in the system but who choose to take advantage of online courses so that they could graduate faster than they would otherwise. A clarification is needed to guide the direction of virtual universities and effectively measure the impact of these organizations (NCHEMS, 2006). Second, there needs to be a data reporting system regarding distance education, with a common definition of enrollments. Once a student contacts the virtual university, he or she needs to be tracked in terms of enrollment, courses, programs, and degrees. With a clear definition of “access” and “online student” and a distance education data reporting system, a virtual university will be able to demonstrate to participating institutions that it can assist them rather than compete with them for students. Also, it will be able to indicate to the state legislature that funding the virtual university has the benefit of achieving state goals.

Thirdly, despite the resistance of higher education institutions, statewide coordination of distance education is needed. The higher education institutions in both Ohio and Texas in this study applauded the role of a facilitator played by the virtual universities in their states; in the state of Kentucky where colleges and universities felt Kentucky Virtual University was not playing such a role, they started forming a partnership outside the virtual university to fill this vacuum. However, there was unanimous resistance to a coordinating system of distance education for fear of an extra level of control from the state. However, the reality is that some sort of statewide coordinating effort is necessary if the state aspires to employ distance education as an instrument of public policy. In each of the three states, there were a number of organizations and agencies that provided services or resources similar to those of the virtual universities. For example, in the state of Ohio, there were various state-level organizations with a focus on technology-mediated education, including Ohio Supercomputer Center (OSC), OhioLINK, Ohio Distance Learning Association (OHDLA), Ohio Distance Learning, and OARnet, just to name a few. In addition, there were institutional centers on campuses that also focus on similar issues, such as the Research Center for Educational Technology (RCET) at Kent State University, the Technology Enhanced Learning and Research (TELRL) Center at The Ohio State University, and The Collaborator at the University of Dayton (OLN, 2004). There are subtle differences in what each of these groups does and promotes. Some of the groups focus solely on technological aspects; others are more interested in the teaching and learning ramifications of using technology. Other groups want to provide services to students. Others want to get just-in-time training to faculty when they need it. However, no one in Ohio, not even OLN, seems to be coordinating or keeping track of whether concerted efforts are being made statewide. An organization such as Ohio Learning Network should facilitate the creation of a

unified statewide plan for distance education and coordinate the distance education initiatives at higher education institutions and other statewide organizations so that postsecondary institutions, business, and industry can be given incentives to encourage students to complete their degrees via distance learning and seek employment in Ohio.

Kentucky serves nicely as another case in point. Distance education use in Kentucky had been strong, experiencing continuing growth, and offering both access and convenience to students (KYVU, 2004). Accompanying the launching of the Kentucky Virtual University was a series of distance education initiatives across Kentucky, including establishing the Kentucky Educational Television Network, the Kentucky Tele-Linking Network, and the Kentucky Virtual High School. They vary in the use of technologies (e.g., internet-based, interactive video, broadcasting) and in the learners they traditionally serve (e.g., k-12, postsecondary education, workforce development). As early as in 2004, the Distance Learning Advisory Committee to the statewide distance board in Kentucky pointed out that one challenge for Kentucky had been the linking and coordination of these varied technological efforts within a common framework of policy, programming, support, and infrastructure.

Limitations of This Study

Because of time and funding constraints, there are several limitations to this study. First, in terms of selection of participants, two-year institutions were underrepresented in this study; hence, the perceptions of the two-year sector are not reflected in the three virtual universities, a mistake that was unintended. Second, because of geographical constraints, no visit was made to the UT TeleCampus in order to collect data. Instead, the majority of the data were collected through interviews by telephone. Without face-to-face interactions, the substantive level that was common for data collected during in-person interviews was lacking. Third, this study failed to go

deeply into the topic of inter-institution collaboration, which came up frequently during the interviews as a key issue within the three virtual universities. Fourth, this study did not gather sufficient details of the policy area regarding students, faculty, and governance and management.

Another limitation relates to the limitation of qualitative research as a methodology. In a study employing qualitative approach, the researcher is the instrument, and the data, especially those collected through interviews, are self-reported. Many factors may intervene during the research process and affect the access to and relevancy of data. In this study, several things might account for the fact that the analysis of the KYVU case is more critical than that of OLN and UTTC. For example, a senior member of the KYVU staff, who is also a respected researcher on virtual universities, introduced me to the organization and contacted some potential participants on my behalf. This approach likely gained me the trust of the participants, especially the KYVU staff, who was very frank about their setbacks as well as successes. In addition, timing may have played a role. When I visited the KYVU and interviewed representatives of member institutions, the KYVU was in the middle of leadership transition and creating its strategic plan. The change and uncertainty may partly explain the institutional representatives' frustrations and negative feelings about the KYVU's initiatives and overall performance.

Directions for Future research

Several recommendations for future research arise from this case study. One possible avenue of investigation for the future study would be to interview students—both “new” students and “incumbent” students—who enrolled in the virtual universities about their experience. With the addition of a student perspective, the picture will become complete as to what the functions of a virtual university are, how it works, and how it could be improved to better meet the needs of all the constituencies.

A second study would be to conduct a limited policy audit to determine whether and how state policies either encourage or discourage the kind of inter-institution collaboration envisioned in the state virtual universities. For example, what are the available state funding policies that address dual enrollment or dual admissions of students at multiple institutions? How are higher education institutions encouraged by policymakers to collaborate rather than merely using the virtual university to make the best deal for a statewide software license and then only using the product individually at the institutional level?

Another study would be to focus on virtual universities that discontinued (e.g., California Virtual University) or switched their focus to K-12 (e.g., Michigan Virtual University) to identify factors that resulted in the dramatic change within these entities.

Another timely study would be to research private virtual universities such as the University of Phoenix to determine what makes them successful in competition with traditional higher education institutions in offering online courses and degrees.

More importantly, research is needed to demonstrate evidence that virtual universities have affected traditional institutions in some way. How different are virtual universities from traditional higher education institutions?

REFERENCES

- About WGU. Retrieved on September 27, 2006 from:
http://www.wgu.edu/about_WGU/overview.asp
- About Open University. <http://www.open.ac.uk/>
- Almanac of Higher Education 2001-2. (August 31, 2001). The 50 states and the District of Columbia. *The Chronicle of Higher Education*, 158, p. 37-95.
- Arnone, M. (February 15, 2002). United States Open U. to close after spending \$20-Million. *The Chronicle of Higher Education*.
- Bates, T. (2000). *Managing technological change: Strategies for college and university leaders* (1st ed.). San Francisco: Jossey-Bass.
- Berg, G. A. (1998). Public Policy on Distance Learning in Higher Education: California State and Western Governors Association Initiatives. *Education Policy Analysis Archives*, 6(11). Retrieved on January 5, 2005, from the World Wide Web:
<http://epaa.asu.edu/epaa/v6n11.html>.
- Berge, Z. L. (1998). Barriers to online teaching in postsecondary institutions: Can policy changes fix it? *Online Journal of Distance Learning Administration*, 1(2). Retrieved on January 5, 2005, from the World Wide Web:
<http://www.westga.edu/~distance/ojdla/winter64/meyen64.htm>.
- Blumenstyk, G. (December 15, 1995). 11 Western governors to study creation of “virtual university.” *The Chronicle of Higher Education*.
- Bolman, L.G. & Deal, T. E. (1997). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass.
- Bradturn, B. & Zimbler, L. (2002). *Distance education instruction by postsecondary faculty and staff: Fall 1998* (NCES 2002-155). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Burgess, R. G., Pole, C. J., Evans, K., & Priestley, C. (1994). Four studies from one for one study from four? In A. Bryman & R. G. Burgess (Eds), *Analyzing qualitative data*, p. 19-145. London: Routledge.
- California Virtual Campus. <http://www.cvc.edu/>.

- California Virtual U. Doubles Its Course Offerings. (August 7, 1998). *The Chronicle of Higher Education*.
- Carcjodo, D. (2003). *The virtual delivery and virtual organization of postsecondary education*. New York: Routledge Falmer.
- Carr, S. (2001). Is anyone making money on distance education?: Colleges struggle to figure out how much they are spending on online education. *The Chronicle of Higher Education*, p. A41.
- Carr, S. (2000). Should Distance students pay for campus-based services? *Chronicle of Higher Education*, Feb. 11, 2000.
- Carnevale, D. (May 19, 2000). 2 models for collaboration in distance education: Western Governors U. is behind projections while Southern effort exceeds expectations. *The Chronicle of Higher Education*, p. A53.
- Carnevale, D. (2004a). For online adjuncts, a seller's market. *The Chronicle of Higher Education*, 50(34), A31.
- Carnevale, D. (2004b). Michigan Virtual U. shifts its focus to elementary and secondary schools, *The Chronicle of Higher Education*, 51(11), p. A30.
- Carnevale, D. (2004c). Britain dismantles a virtual university after it failed to attract enough students. *The Chronicle of Higher Education*, 50 (36), p. A35.
- Cerych, L., & Sabatier, P. (1986). *Great expectations and mixed performances: The implementation of European higher education reforms*. Stoke-on-Trent, UK: Trentham Books, 1986.
- Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In Denzin, N.K. & Lincoln, Y.S. (Eds.). *Handbook of qualitative research* (2nd Ed.), p. 509-535. Thousand Oaks, CA: Sage.
- Council for Higher Education Accreditation. (2002). *Accreditation and Assuring Quality in Distance Learning*. Washington, DC: Council for Higher Education Accreditation.
- Creswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Newbury Park, CA: Sage.
- Daniel, J. S. (1996). *Mega-universities and knowledge media: Technology strategies for higher education*. London: Logan Page.
- Deloughry, T. J. (December 8, 1995). Colleges join forces to create distance-learning programs. *The Chronicle of Higher Education*.

- Dixon, P. (1996). *Virtual college: A quick guide to all you need to know to get the degrees you want with computer, T.V., video, audio, and other learning distance tools*. Princeton, NJ: Peterson's Education, Inc.
- Downes, S. (1999). What happened at CVU. Retrieved on May 12, 2006 from: www.atl.ualberta.ca/downes/threads/column041499.htm
- Dutton, William H., & Loader, Brian D. (2002). Chapter 12: competition and collaboration in online distance learning. In *Digital academy: The new media and institutions of higher education and learning*, Dutton, W. H., & Loader, B. D., p. 169-184.
- Epper, R. M. (1997). *Coordination and Competition in Postsecondary Distance Education: A Comparative Case Study of Statewide Policies*. *Journal of Higher Education*, 68(5), p551-587.
- Epper, R. M. (1999). *State policies for distance education: A survey of the states*. Denver, CO: State Higher Education Executive Officers.
- Epper, R. M., & Garn, M. C. (2003). *Virtual college & university consortia: A national study*. Boulder, CO: A joint project by Western Interstate Commission for Higher Education and Western Cooperative for Educational Communications State Higher Education Executive Officers Association.
- Farrell, G. M. (1999). *The development of virtual education: A global perspective*. Vancouver, Canada: The Commonwealth of Learning,
- Fetterman, D. (1989). *Ethnography: Step by step*. Newbury Park, CA: Sage.
- Finkelstein, M.J., Frances C., Jewett, F.I., & Scholz, B.W. (2000). *Dollars, Distance, and online education: The new economics of college teaching and learning*. Phoenix, AZ: Oryx Press.
- Foster, L. (2001). Technology: Transforming the landscape of higher education. *The Review of Higher Education*, 25(1), 115-124.
- Foster, A. & Carnevela, D. (2007). Distance Education Goes Public. *The Chronicle of Higher Education*, 53 (34), p. A49.
- Gellman-Danley, B., & Fetzner, M. J. (1998). Asking the really tough questions: Policy issues for distance learning. *Online Journal of Distance Learning Administration*, 1(1). Retrieved on January 5, 2005, from the World Wide Web: <http://www.westga.edu/~distance/danley11.html>.
- Gilbert, S.D. (2001). *How to be a successful online student*. New York: McGraw-Hill.

- Gladieux, L. E., & Swail, W. S. (1999). *The virtual university & educational opportunity: Issues of equity and access for the next generation*. Washington D. C.: College Board.
- Glesne, C. 1999. *Becoming Qualitative Researchers*. New York: Addison Wesley Longman.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine Publishing Company.
- Goetz, J.P. & LeCompte, M.D. (1984). *Ethnography and qualitative design in educational research*. Orlando, FL: Academic Press.
- Guba, E. G. & Lincoln, Y. S. (1981). *Effective Evaluation*. San Francisco, CA: Jossey-Bass.
- Gunn, C. (2000, July/August). Illinois Virtual Campus: Focusing on student support. *Technology Source* [online]. Retrieved on January 5, 2005 from: <http://technologysource.org/>.
- Guri-Rosenblit, S. (2001). Virtual universities: Current models and future trends. *Higher Education in Europe*, 26(4), p. 487-499.
- Hanna, D. E., & Associates (2000). *Higher education in an era of digital competition*. Atwood Publishing, WI: Madison.
- Heck, R. H. (2004). *Studying educational and social policy: Theoretical concepts and research methods*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Phipps, R. & Merisotis J. (2000). *Quality on the line: Benchmarks for success in Internet-based distance education*. Washington, DC: Institute of Higher Education Policy.
- Johnson, M.J., Hanna, D., & Olcott, D. (2003). *Bridging the gap: Leadership, technology, and organizational change for university deans and chairpersons*. Madison, WI: Atwood Publishing.
- Jones, D. (2002). *The costing methodology project*. Boulder, CO: the Western Cooperative for Educational Telecommunications. Retrieved on May 11, 2006 from: <http://www.wcet.info/projects/tcm>
- Jorgensen, D. (1989). *Participant observation: A methodology for human studies*. Newbury Park, CA: Sage.
- Jonstone, S. M. (2007) *Advancing campus efficiencies: a companion for campus leaders in the digital era*. MA: Bolton, Anker Publishing Company, Inc.
- Kaufman, Herbert (1991). *Time, chance, and organization: natural selection in a perilous environment*. Madison, WI: Atwood Publishing.

- Kennedy, T. (2006). Online distance learning: An idea for the times. *Educause Quarterly*, 4, p, 67-69.
- King, J. W., Nugent, G. C., Russell, E. B., Eich, E., & Lacy, D. D. (2000). *Policy frameworks for distance education: Implications for decision makers*. *Online Journal of Distance Learning Administration*, 3(2). Retrieved on January 5, 2005, from the World Wide Web: <http://www.westga.edu/~distance/king32.html>
- Kirp, D. L. (2003). *Shakespeare, Einstein, and the bottom line: The marketing of higher education*. Cambridge, MA: Harvard University Press.
- Kovel-Jarboe, P. (1997). From the margin to the mainstream: State-level policy and planning for distance education. In C. L. Dillon & R. Cintr on (Eds.), *Building a working policy for distance education* (pp. 109). San Francisco: Jossey-Bass.
- Krenelka, L. M. (2005). *A case study of the short life of the United States Open University: Perspectives of administrators, board members, associate faculty and staff*. Unpublished doctoral dissertation, the University of North Dakota.
- Krieger, T. J. (2001). *A virtual revolution: Trends in expansion of distance education*. Washington, DC: American Federation of Teachers. Retrieved on March 13, 2007 from: http://www.usdla.org/html/journal/NOV01_Issue/article02.html
- Lancy, D. F. (1993). *Qualitative research in education: An introduction to the major traditions*. White Plains, NY: Longman.
- Lewis, L., Snow, K., Farris, E., and Levin, D. (1999). *Distance education at degree-granting postsecondary education institutions: 1997-98* (NCES 2000-013). National Center for Education Statistics, U.S. Department of Education. Washington, DC.
- Lewis, L., and Waits, T. (2003). *Distance education at degree-granting postsecondary education institutions: 2000-2001* (NCES 2003-017). National Center for Education Statistics, U.S. Department of Education. Washington, DC.
- Lincoln, Y.S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hill: Sage.
- Measuring the Costs of Distance Education (March 23, 2001). *Chronicle of Higher Education*, B20.
- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Meyer, K. (2003). The rule of the marketplace: Flawed assumptions contributed to the failure of dot-coms and virtual universities. *Educause Quarterly*, No.2, p. 4-7.

- Meyer, K. (In press) Lessons learned from virtual universities (Meyer, K., editor). *New Directions for Higher Education*, n.146. San Francisco: Jossey-Bass.
- McCoy, D. R. (2002). *A policy analysis of selected public virtual universities in the United States*. Dissertation. Unpublished doctoral dissertation, Northern Illinois University.
- McCoy, D. R., & Sorensen, C. K. (2003). Policy perspectives on selected virtual universities in the United States. *Quarterly Review of Distance Education*, 4(2), p. 89-107.
- Miles, M. B. & Huberman, A. M. (1994). *Analyzing qualitative data: A source book for new methods*. Newbury Park, CA: Sage.
- Moore, M. G. (2003). *From Chautauqua to the virtual university: A century of distance education in the United States*. Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, OH.
- Morabito, M. G. (1999). *Online distance education: Historical perspective and practical application*. Universal Publishers/uPUBLISH.com.
- National Governors Association (1998). *Results in education: 1988*. Washington, DC: NGA. (ERIC Document Reproduction Service No. ED 347 211).
- No Significant Difference Phenomenon website. <http://www.nosignificantdifference.org/>
- Olsen, F. (1999). Virtual institutions challenge accreditators to devise new ways of measuring quality. *The Chronicle of Higher Education*, 49 (10), A29.
- Parsad, B., and Lewis, L. (2008). *Distance education at degree-granting postsecondary institutions: 2006-07* (NCES 2009-044). National Center for Education Statistics, U.S. Department of Education. Washington, DC.
- Palloff, R. M., & Pratt, K. (2003). *The virtual student: A profile and guide to working with online learners*. San Francisco, CA: Jossey-Bass.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Phipps, R., & Merisotis, J. (1999). *What's the difference?* Washington, D.C.: Institute for Higher Education Policy.
- Quigley, A. (1989). The politics of access: Identifying components of a research agenda. *Research in Distance Education*, 1(1), p. 3-5.
- Roger, G., Hammersley, M. & Foster, P. (2000). *Case study method: Key issues, key texts*. London; Thousand Oaks, CA: Sage Publications.

- Rosevear, S. G. (1999). Lessons for developing a partnership-based virtual university. *Technology Source*. Retrieved on January 5, 2005, from the World Wide Web: <http://ts.mivu.org/default.asp?show=article&id=30>
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Russell, T. L. (1999). *The no significant difference phenomenon: A review of contemporary research on the effectiveness of distance learning in higher education*. Washington, D.C.: Institute for Higher Education Policy.
- Schank, R. (2002). The rise of the virtual university. *Quarterly Review of Distance Education*, 3(1), 75-90.
- Schifter, C. C (2000). Faculty participation in asynchronous learning networks: A case study of motivating and inhibiting Factors. *The Journal of Asynchronous Learning Networks*. 4(1). Retrieved March 12, 2005 from: http://www.aln.org/publications/jaln/v4n1/v4n1_schifter.asp.
- Smith, B. (December 1, 1998). Creating consortia: Exporting the best, import the rest. *Converge Magazine*.
- Southern Regional Education Board. (2002). *Using finance policy to reduce barriers to distance learning*. Atlanta, GA.: Southern Regional Education Board.
- Stallings, D. (2000). The virtual university: Legitimized at Century's end. *Journal of Academic Librarianship*, 26(1), p. 3-14.
- Stallings, D. (2002). Measuring success in the virtual university. *Journal of Academic Librarianship*, 28(1-2), p. 47-53.
- Stein, R. B., & Short, P. M. (2001). Collaboration in delivering higher education programs: Barriers and challenges. *Review of Higher Education*, 24(4), p. 417-435.
- Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In Denzin, N. K., & Lincoln, Y. S. (1999). *Handbook of qualitative research*. Newbury Park, CA: Sage Publications.
- Thompson, J. (2000). *The California Virtual University*. Retrieved on January 5, 2005 from the World Wide Web: <http://id-ww.ucsb.edu/detche/library/distance/calif/calvu.html>.
- Twigg, C. A. (1997). *The virtual university*. Washington, DC: EduCom.

- Twigg, C. A. (2003). *Expanding access to learning: The role of virtual universities*. Troy, NY: Center for Academic Transformation, Pew Learning and Technology Program.
- van Maanen, J. (1988). *Tales of the field: On writing ethnography*. Chicago: University of Chicago Press
- Walsh, B.A. (1997). The need for a privatization process: Lessons from development and implementation. *Public Administration Review*, 57 (1), p. 11-20
- Western Cooperative for Educational Telecommunications. (2001a). *Principles of good practices for electronically offered degree and certificate programs*. Boulder, CO: WCET.
- Western Cooperative for Educational Telecommunications. (2001b). *Best Practices for Electronically Offered Degree and Certificate Programs*. Boulder, CO: WCET.
- What is eCore[®]?. <http://www.georgiacenter.uga.edu/ecore/whatisecore.html>
- What is Michigan Virtual University? (2005). Retrieved on January 5, 2007 from: <http://www.mivu.org/content.cfm?ID=1>
- Wolf, D. B., & Johnstone, S. M. (1999). Cleaning up the language of electronically delivered academic programs. *Change*, July/August.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks: Sage Publications.
- Young, J.R. (2000a). South Dakota and Tennessee join the ranks of state building virtual universities. *The Chronicle of Higher Education*, 46 (38), p. A51.
- Young, J.R. (2000b). Veteran of California Virtual U. blames a flawed business plan for its demise. *Chronicle of Higher Education*, June 30, 2000, p. A44.
- Zanville, H., & Morihara, B. (2001). *Survey of the virtual universities: Looking for trends in online services for faculty*. Oregon: Oregon University System.
- Zeller, N. (1995). Distance Education and Public Policy. *Review of Higher Education*, 18(2), p. 123-148.
- Zerby, Joseph J., Jr. (1998). *The applicability of classical and metaphorical organizational models to the virtual university: A case study*. Unpublished doctoral dissertation, Widener University.

INTERVIEWS-KENTUCKY VIRTUAL UNIVERSITY

(N=12)

Job Title	Institution	Interview Format
State-level Coordinating Board		
Senior Administrator	Kentucky Council on Postsecondary Education	Frankfort, KY
KYVU Management		
Founder and former CEO	Kentucky Virtual University	By phone
Former Interim CEO, Chief Operating Officer	Kentucky Virtual University	Frankfort, KY
CEO	Kentucky Virtual University	Frankfort, KY
Chief Academic Officer	Kentucky Virtual University	Frankfort, KY
Marketing Director	Kentucky Virtual University	Frankfort, KY
Chief Information Officer	Kentucky Virtual University	Frankfort, KY
Selected Participating Institutions		
<i>Individual Interviews</i>		
Director	Kentucky Community and Technical College System	By phone
Dean	Four-year Public Regional University	By phone
Director	Four-year Public Regional University	Athens, GA
Assistant Provost	Research I Public University	By phone
<i>Group Interviews</i>		
Director	Research I Public University	Lexington, KY
Director	Research I Public University	Lexington, KY

DOCUMENTS-KENTUCKY VIRTUAL UNIVERSITY

Almanac of Higher Education 1997-8. *The Chronicle of Higher Education*. Retrieved on June 20, 2008 at:

<http://chronicle.com/che-data/infobank.dir/almanac.dir/97alm.dir/states.dir/ky.htm>

Almanac of Higher Education 2005-6. The 50 states and the District of Columbia. *The Chronicle of Higher Education*, 52(1), p. 58.

Distance Learning Advisory Committee. (May 2004). Issues & opportunities: The Kentucky eLearning strategic framework. Frankfort, Kentucky: Kentucky Council on Postsecondary Education.

Distance Learning Advisory Committee. (Aug. 22, 2006). *Meeting minutes*. Frankfort, Kentucky: Kentucky Council on Postsecondary Education.

Distance Learning Advisory Committee. (March 12, 2007). *Meeting minutes*. Frankfort, Kentucky: Kentucky Council on Postsecondary Education.

Education Commission of the States. *Education in Kentucky*. Retrieved on July 11, 2008 at: <http://mb2.ecs.org/reports/Report.aspx?id=221>

Kentucky Virtual University (April, 2005). *A report on Kentucky Virtual University and Kentucky Virtual Library for Southern Association of Colleges and Schools Commission on Colleges*. Frankfort, KY: KYVU.

Kentucky Virtual University. (September, 2006). *Final report on KYVU environment scan*. Frankfort, KY: KYVU.

Kentucky Council on Postsecondary Education. (2006). *Supporting Kentucky's eLearning ecosystem: Strategic plan of the Kentucky Virtual University 2006-2009*. Frankfort, KY: KCPE.

Southern Association of Colleges and Schools Commission on Colleges. (May, 2005). *Report of the Special Committee of the Southern Association of Colleges and Schools on the Kentucky Virtual University*. Atlanta, GA: SACS.

Kentucky Y Virtual University. (August 15, 2000). KY Virtual University—Supplementary Information for Kentucky Institutions' Reports to the Commission on Southern Association of Colleges and Schools. Frankfort, KY: KYVU.

Kentucky Virtual University (2004). *KYVU Report 2002-2004*. Frankfort, KY: KYVU.

Special Committee of SACS. (Sept. 14, 2005). Report of the Special Committee of SACS on KYVU. Frankfort, KY: KYVU.

INTERVIEWS-OHIO LEARNING NETWORK

(N=12)

Job Title	Institution	Interview Format
OLN Management		
CEO	Ohio Learning Network	Columbia, OH
Assistant Director	Ohio Learning Network	Columbia, OH
Director, Professional Development Programs	Ohio Learning Network	Columbia, OH
Director of Technology	Ohio Learning Network	Columbia, OH
Director, Educational Access	Ohio Learning Network	Columbia, OH
Selected Participating Institutions		
<i>Individual Interviews</i>		
Dean	Four-year Public University	By phone
Registrar/academic dean	Four-year Public University	By phone
Provost	Four-year Public University	By phone
OLN Committee Chair		
Director	Research I Public University	By phone
OLN Committee Chair		
Vice Provost	Research I Public University	By phone
OLN Committee Chair		
Director	Research I Public University	By phone
OLN Committee Chair		
<i>Group Interviews</i>		
Associate Provost	Four-year Private University	Columbia, OH
Director	Four-year Public University	Columbia, OH
Dean	Two-year Public College	Columbia, OH
Regional Coordinator	Ohio Learning Network	Columbia, OH

DOCUMENTS-OHIO LEARNING NETWORK

National Center for Higher Education Management Systems (July, 2002). *OLN operations and environment: Submitted to the assessment committee*. Boulder, Colo.: NCHEMS.

Ohio Learning Network. (September 16, 2003). *2003 and Beyond: Challenges and opportunities*. Columbus, OH: OLN.

Ohio Learning Network Website: <http://www.ohiolearns.org/>

Ohio Board of Regents. (July, 1996). *Technology in the Learning Communities of tomorrow: beginning the transformation*. Columbus, OH: Ohio Board of Regents.

Ohio Learning Network. (December 2004). *Bounded exuberance: e-learning in Ohio*. Columbus, OH: OLN.

Ohio Learning Network. (2005). *Fall 2004 Distance Learning Outcomes Summary*. Columbus, OH: OLN.

Ohio Learning Network (April 2004). *The Future of Distance and e-Learning in Ohio: A Report of the Ohio Learning Network Task Force on the Future of Distance and e-Learning in Ohio*. Columbus, OH: OLN.

Ohio Learning Network. (2006). *Ohio Learning Network strategic plan: FY2006-2007*. Columbus, OH: OLN.

Ohio Learning Network. (February 17, 1999). *Policy and Planning Group meeting minutes*. Columbus, OH: OLN.

INTERVIEWS-UT TELECAMPUS

(N=10)

Job Title	Institution	Interview Format
UT System Board of Regents		
Assistant Vice Chancellor	Board of Regents of the UT System	By telephone
UT TeleCampus Management		
<i>Group Interviews</i>		
Director	UT TeleCampus	By telephone
Associate Director	UT TeleCampus	By telephone
<i>Individual Interviews</i>		
Manager for Program Support Services	UT TeleCampus	By telephone
Manager for Technology and Course Development	UT TeleCampus	By telephone
Manager for Student and Faculty Services	UT TeleCampus	By telephone
Manager for Communications Services	UT TeleCampus	By telephone
Selected Participating Institutions		
<i>Individual Interviews</i>		
Assistant Provost	Four-year Public University	Atlanta, GA
Provost	Four-year Public University	By telephone
Dean	Four-year Public University	By telephone
Director	Four-year Public University	via email
<i>Group Interviews</i>		
Dean	Four-year Public University	Atlanta, GA
Dean	Four-year Public University	Atlanta, GA
Vice President	Four-year Public University	Atlanta, GA
Vice President	Four-year Public University	Atlanta, GA

DOCUMENTS-UT TELECAMPUS

The University of Texas TeleCampus. (October 19, 2001). *Response to the Substantive Change Committee Report to the Commission on Colleges Southern Association of Colleges and Schools*. Austin, TX: The University of Texas TeleCampus.

The University of Texas TeleCampus website: <http://www.telecampus.utsystem.edu>

The University of Texas TeleCampus. (AUGUST 1997). *UT TeleCampus master plan*. Austin, TX: The University of Texas TeleCampus.

Hardy, D., & Hubbard, M. (September, 2002). *First follow-up report to the Substantive Change Committee report by the Southern Association of Colleges and Schools Commission on Colleges*. Austin, TX: The University of Texas TeleCampus.

Hardy, D., & Hubbard, M. (October, 2002). *Response to the Substantive Change Committee report by the Southern Association of Colleges and Schools Commission on Colleges*. Austin, TX: The University of Texas TeleCampus.

APPENDIX A:

A List of State-level Virtual Universities in the United States

State	Virtual U.	URL
Alabama	Alabama Distance Learning Consortium	http://www.alalearn.com/
*Alaska		
Arkansas	ACCESS Arkansas	http://www.nwacc.edu/disted/nwdeacar.php
	University of Arkansas Online	http://www.uaonline.uasys.edu/
Arizona	Arizona Regents University	http://azdistancelearning.org/cgi-bin/wdbcgiw/vu_user/SIMPLE_SEARCH.show
California	California Virtual Campus	http://www.cvc.edu/
Colorado	**The Colorado Community College Online	http://www.ccconline.org/
	The Colorado Consortium for Independent Study	http://192.111.53.126/about_us.htm
	ColoradoMentor	http://coloradomentor.org/
Connecticut	**Connecticut Distance Learning Consortium	http://www.ctdlc.org/
*Delaware		
Florida	Florida Community College Distance Learning Consortium	http://www.distancelearn.org/mainPage.cfm
	Florida Virtual Campus	http://www.floridavirtualcampus.org/
Georgia	University System of Georgia Independent and Distance Learning	http://www.gactr.uga.edu/idl/index.phtml
	Georgia Virtual Technical College	http://www.gvtc.org/
Hawaii	University of Hawaii Community Colleges	http://www.hawaii.edu/uhcc.e-learn/
	University of Hawaii Online	http://www.hawaii.edu/uhcc.e-learn/
Idaho	Idaho Electronic Campus	http://www.idahoe-campus.state.id.us/
Illinois	Illinois Community Colleges Online	http://www.ilcco.net/
	Illinois Virtual Campus	http://www.ivic.illinois.edu/

State	Virtual U.	URL
Indiana	Indiana College Network	http://www.icn.org/about/index.html
Iowa	Iowa Community College Online Consortium	http://www.iowaconline.org/
	IowaLearns	http://www.iowalearns.org/
Kansas	EduKan	http://www.edukan.org/
	Kansas Distance Learning	http://www.kansasregents.org/KANDL/index.html
	KC REACHE	http://www.kcreache.org/
Kentucky	**Kentucky Virtual University	http://www.kyvu.org/home.htm
Louisiana	Board of Regents Electronic Campus	http://epscor.phys.lsu.edu/lasrec/
Maine	The University of Maine System Network	http://www.unet.maine.edu/
Maryland	MarylandOnline	http://www.marylandonline.org/
Massachusetts	Massachusetts Colleges Online	http://www.mco.mass.edu/
	**UMassOnline	http://www.umassonline.net/
Michigan	Michigan Virtual Learning Collaborative	http://vcampus.mccvlc.org/
Michigan	Michigan Virtual Learning Collaborative	http://www.mnvu.org/mnvu/index.jsp
	Michigan Virtual University	http://www.mivu.org/
Minnesota	Minnesota Virtual University	http://msvcc.blackboard.com/webapps/portal/frameset.jsp
Mississippi	Mississippi Virtual Community College	http://www.msecampus.org/
	Mississippi Electronic Campus	http://www.mlnetwork.org/
Missouri	Missouri Learners' Network	http://telecenter.missouri.edu/tcrc/links/
Montana	Montana University System Distance Learning	http://distance.unl.edu/
Nebraska	Nebraska Distance Learning Catalog	http://www.scsr.nevada.edu/disted/
Nevada	University and Community College System of Nevada	http://www.nhctc.edu/
New Hampshire	New Hampshire Community Technical College System	http://www.cll.edu/index.html
	College for Lifelong Learning	http://www.njvccc.cc.nj.us/
New Jersey	New Jersey Virtual Community College Consortium	http://www.njvu.org/
	New Jersey Virtual University	

State	Virtual U.	URL
*New Mexico		
New York	**SUNY Learning Learning Network	http://www.sln.suny.edu/
North Carolina	**North Carolina Virtual Learning Community	http://www.ncccs.cc.nc.us/Distance_Learning/
North Dakota	North Dakota University System Online	http://www.nduso.org/
Ohio	Ohio Learning Network	http://www.olin.org/
Oklahoma	Online College of Oklahoma	http://www.okcollegeonline.org/
Oregon	Oregon Colleges Online	http://oregoncollegesonline.com/
	Oregon Network for Education	http://oregonone.org/index.html
Pennsylvania	Pennsylvania Virtual Community College Consortium	http://www.pavcc.org/
	The Pennsylvania Distance Learning Consortium	http://www.padlc.org/
	Keystone University Network	http://www.keystoneu.net/departments/progadmin/index.html
Rhode Island	Rhode Island Board of Governors for Higher Education: WAVERIDER	http://www.ribghe.org/waverider/waverider.html
South Carolina	South Carolina Partnership for Distance Education	http://www.sc-partnership.org/
South Dakota	Electronic University Consortium (EUC) of South Dakota	http://www.sdbor.edu/euc/
Tennessee	**Board of Regents Online Degree Programs	http://www.tn.regentsdegrees.org/
Texas	The Virtual College of Texas	http://www.vct.org/
	**The UT TeleCampus	http://www.telecampus.utsystem.edu/
	Texas Distance Education	http://www.texasdistanceeducation.com/
	University of Houston System - CampusNet	http://www.uhsa.uh.edu/campusnet/
Utah	The Utah Electronic College	http://www.uec.org/indexMain.html
Virginia	Electronic Campus of Virginia	http://www.vacec.bev.net/
	Virginia Community College System Online	http://www.so.cc.va.us/vccsonline/
Vermont	The Vermont Interactive Learning Network	http://www.viln.org/index.htm
Washington	**Washington Online Virtual Campus	http://www.waol.org/home/default.asp
West Virginia	Satellite Network of West Virginia	http://www.witechcolleges.com/

State	Virtual U.	URL
Wisconsin	Wisconsin Technical Colleges	http://www.learn.wisconsin.edu/index.asp
	University of Wisconsin Learning Innovations	http://www.caspercollege.edu/distance_ed/courses.asp
Wyoming	Wyoming Distance Education Consortium	
* No virtual universities		
** Virtual universities using Central Enterprise Model		

Appendix B

A Letter to the CEOs of the Three Virtual Universities

Dear Dr. (last name),

I am writing to you as the CEO of an exemplar statewide virtual university. As I am conducting a research in this area, I would like to have your input concerning policies and successful achievements of your institution.

In the past three years, I have focused my research on online education, and I have published in leading journals in this field. My current research is to explore the operation of successful statewide virtual universities and examine the policies that support or inhibit the achievement of their missions. Your institution, together with another two statewide online education consortia, has been identified as exemplars among virtual universities. Your participation in this study will help to provide recommendations for educational and legislative stakeholders who are involved in the development or operation of a public virtual university.

As you have accumulated tremendous expertise in this field, I will greatly value your participation. If you do not mind, I would like to make a follow-up phone call to you or your secretary to schedule a time when I can talk with you in more details about my research and the research approach.

Thank you and I am looking forward to talking with you soon!

Sincerely,

Haixia Xu, Ph.D. Candidate
Institute of Higher Education
University of Georgia
Meigs Hall
Athens, GA 30605
Phone: 706-542-3464
Fax: 706-542-7588
haixia@uga.edu

Appendix C

A Recruitment Letter to Other Research Participants

Dear Dr. (last name),

This is Haixia from the Institute of Higher Education at the University of Georgia. I am currently working on my doctoral dissertation, which focuses on three long-standing state-level virtual universities (Kentucky Virtual University, UT TeleCampus, and Ohio Learning Network). Xx (name of CEO) from OLN kindly requested your participation in this study, and you graciously said yes. Therefore, I am following up o schedule the interview.

I have visited Kentucky Virtual University and am currently interviewing folks from the UT TeleCampus. OLN is the third case in my dissertation. As in the other two cases, I intend to interview participating institutions as well as OLN and the Board of Regents on policies and practices that make OLN successful, and things that OLN could improve to better meet its mission. For this purpose, I am visiting OLN on Oct. 31 and Nov. 1. I understand that you will not happen to be in Columbus during my two-day visit, so I am writing to see whether we could schedule a phone interview that will take no more than one hour, as I understand you are extremely busy. I am proposing the following dates:

Nov. 3-4

Nov. 14-15

Nov. 21-25.

If none of these days works for you, please feel free to pick a time in the week of Nov. 28.

Thank you very much for your time and I am looking forward to hearing form you soon!

Haixia

Sincerely,

Haixia Xu, Ph.D. Candidate
Institute of Higher Education
University of Georgia
Meigs Hall
Athens, GA 30605
Phone: 706-542-3464
Fax: 706-542-7588
haixia@uga.edu

Appendix D

Agenda of the Site Visit to Ohio Learning Network

Haixia Xu Schedule: Oct 31-Nov 1 (Ohio Learning Network)

Oct 31

8:30 AM -- Meet (name of the CEO) at OLN offices- (mailing address and phone number unrevealed)

Go to breakfast with Kate La Chatelaine restaurant, W Lane Avenue

9:30 AM – Meet with (name omitted), director, Educational Access

11 AM—Meet with (name omitted), director of Technology

Noon – Pizza Lunch with OLN senior staff
(Name omitted)

2 PM – (Name omitted), director of professional development

3:30 PM – (Name omitted), assistant director

November 1

Academic Outreach Committee meeting 10 – 2:30
@ OLN offices

Focus Group 3-3:30

4 pm – (Name omitted), director of instructional services, Columbus State Community College

Haixia – you have some times free both days that you can make calls from OLN. Here are four folks who are willing to talk with you. Appointments have not been set up.

(Name, title, division, institution and phone number omitted out of confidentiality consideration)

Appendix E

Interview Guide

Topic Areas Covered in the Interviews:

1. **Interviewees**
 - Background
 - Job responsibility
 - Involvement in the state-level virtual university
2. **Structural Perspective**
 - Historical background
 - Mission and change in missions
 - The governing board (or policy-making body)
 - Reporting line
 - Organizational chart
 - Staff
3. **Human Resource Perspective**
 - Participating of colleges and universities
 - Involvement of institutional representatives
 - Needs of participating colleges and universities
 - Services provided to higher education institutions, faculty, and or students
4. **Political Perspectives**
 - Participating institutions' perception of controversial issues within the virtual university
 - The State-level virtual university's perception of challenges and barriers
5. **Symbolic Perspectives**
 - Symbols that created common ground (e.g., history, rituals, culture, etc.)
6. **Others**
 - Various topics emerging during the interviews

Appendix F

Informed Consent Form

I, _____, agree to participate in a research study titled "Virtual Universities: A Comparative Case Study" conducted by Haixia Xu from the Institute of Higher Education at the University of Georgia (706-542-3464). I understand that my participation is voluntary. I can stop taking part without giving any reason, and without penalty. I can ask to have all of the information about me returned to me, removed from the research records, or destroyed.

The purpose of this study is to examine four exemplar state/system wide virtual universities' policies and operational practices in meeting their goals.

If I volunteer to take part in this study, I will be asked to do the following things:

- 1) I will meet with the researcher for one interview in summer 2005 at a convenient time and place for both of us. During the interview, the researcher will ask me for policies and policy-making process in my institution. The interview will last approximately sixty minutes, and will be audio-taped and transcribed by the researcher. After the interview is transcribed, I will be given the chance to review my transcripts and to make changes to improve accuracy and clarity if I so desire.
- 2) I will allow the researcher to contact me via email to clarify the information about the study. I understand that Internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. However, once the completed email is received by the researcher, standard confidentiality procedures will be employed.
- 3) I will allow the researcher to destroy the tapes of the interviews by January 2006, immediately following the completion of the data analysis.

No risk, stress, or discomfort is expected as a result of my participation in this study. Any information that is obtained in connection with this study and that can be identified with me or my institution will remain confidential and will be disclosed only with my permission or as required by law. The information will be destroyed following the completion of data analysis. My identity or institution will not be revealed in any publication of the results of this research without my permission.

I understand that I will not benefit directly from this research. However, I can benefit indirectly by gaining insights for reflection on the process and by learning from policies and operational practices in other institutions in this study

The researcher will answer any further questions about the research, now or during the course of the project (706-542-3464).

I understand that I am agreeing by my signature on this form to take part in this research project and understand that I will receive a signed copy of this consent form for my records.

<u>Haixia Xu</u>	_____	_____
Name of Researcher	Signature	Date
Telephone: (706) 542-3464		
Email: haixia@uga.edu		

_____	_____	_____
Name of Participant	Signature	Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to the IRB chairperson in the Human Subjects Office at the University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411. Telephone: (706) 542-3199; E-Mail Address: IRB@uga.edu.