Over the past two years, a statewide initiative has been led to create a virtual university in Minnesota. With one million dollars in state funding, the two public higher education systems—the Minnesota State Colleges and Universities and the University of Minnesota—have collaborated with private colleges, state departments, industry representatives, and community organizations to develop two online resources: an advising and career planning tool and a common course catalog. Minnesota Virtual University (MnVU) does not represent a "real" virtual university. Instead, what began as a legislative mandate to create a virtual university has become a framework for the Minnesota public higher education systems to address joint development of online student systems, curriculum development, faculty and staff development, K-12 connections, transfer issues, industry partnerships, and rapid development of learning resources to meet learner needs. The online advising system and comparative course catalog put the resources of 200 plus institutions at the fingertips of lifelong learners; however, they do not deliver the courses, certificates, modules, or programs. MnVU is not a new degree-granting institution. The primary purpose of this paper is to begin a discussion on identifying criteria for determining if a state (or region) is ready for a virtual university initiative. This paper shares two taxonomies for classifying virtual universities that now dot the higher education landscape; presents an initial list of inter-institutional readiness criteria—or those criteria that preferably need to be in place, and definitely should be addressed before beginning a statewide virtual university effort; and describes key partners and how they have built a statewide partnership. (Contains 15 references.) (AEF)
Transforming Higher Education: Building a Statewide Partnership

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Abstract:

Over the past two years, we have led a statewide initiative to create a virtual university. In this paper, we share two taxonomies for classifying virtual universities; we present our initial list of readiness criteria or those criteria that preferably need to be in place, and definitely should be addressed, before beginning a statewide virtual university effort; and we describe our key partners and how we have built a statewide partnership. Our primary purpose is to begin a discussion on identifying criteria for determining if a state (or region) is ready for a virtual university initiative.

Understanding the Context Surrounding Minnesota Virtual University

"A virtual university must be a real university offering learning opportunities otherwise denied. It must be, above all, a network for life long learning which meets the new learning needs of a new century" (Teare, Davies, & Sandelands, 1998, p. 8)

Over the past two years, we have been involved in a statewide initiative to create a virtual university. Article 34 of Minnesota's 1997 Higher Education Bill defines our state's virtual university as a system to provide the uniform delivery of higher education administrative services and program offerings to students through the electronic medium of the Internet.

With one million dollars in state funding, our two public higher education systems -- the Minnesota State Colleges and Universities and the University of Minnesota -- have collaborated with private colleges, state departments, industry representatives, and community organizations to develop two
online resources: an advising and career planning tool known as ISEEK (Internet System for Education and Employment Knowledge, www.iseek.org), and a common course catalog known as MnVU (Minnesota Virtual University, www.mnvu.org). These two resources provide learners, counselors, and employers with a "virtual" advising office for help with needs assessment, program identification, and financial aid; and a common catalog for links to courses and class schedule information (potentially from all providers in the state). In addition, employers, community groups, and learners of any age or at any location can post requests regarding their specific learning needs and preferred delivery method (face to face, web, ITV, etc.), and "matches" are then made between the providers and learners.

A coordinating board made up of members of the many stakeholders, two project managers, and a series of task teams have largely led this effort and developed these resources. The Chancellor from one system and the Provost from the other appointed the original board; the co-chairs are the Senior Vice Chancellor from the Minnesota State Colleges and Universities (MnSCU) and a Vice Provost from the University of Minnesota (UMN). Most recently, a business plan has been developed, stating that these online resources represent "a gateway through which citizens seeking access to learning, job and career opportunities; learning resource providers; and employers are drawn together into a dynamic Internet based marketplace that creates value for each of them and the State as a whole."

According to Teare et al.'s (1998) definition of a virtual university, "a virtual university must be a real university offering learning opportunities otherwise denied," Minnesota Virtual University, currently comprised of a comprehensive course catalog, does not represent a "real" virtual university. Instead, what began as a legislative mandate to create a "virtual university" has become a framework for the Minnesota public higher education systems to address joint development of online student systems, curriculum development, faculty and staff development, K-12 connections, transfer issues, industry partnerships, and rapid development of learning resources to meet learner needs. The resources created, an online advising system and comparative course catalog, put the resources of 200+ institutions at the fingertips of lifelong learners. They do not, however, deliver the courses, certificates, modules, or programs. MnVU is not a new degree-granting institution.

Along the way, the respective governing boards, President and Chancellor, other college presidents, and academic deans have been informed about the process, and several hundred administrators, faculty, and staff have been involved in the initiative. However, some are either opposed to this venture or view it as a competition for currently scarce resources.

This opposition could be viewed as an asset instead of a liability. Stephen Downes (1999), in his recent analysis of California Virtual University, writes that

> There is a great danger that online learning will suffer from the (uninformed) promises made by administrators and government officials. Expecting quick financial returns, expecting to be the provider of a certain course, program, or service, expecting that staff and students will flock unassisted to the new paradigm; these are all pitfalls into which promoters of online learning sometimes fall, and ironically, sometimes the discipline's greatest proponent can also be its greatest liability. ([http://www.atl.ualberta.ca/downes/threads/column041499.htm](http://www.atl.ualberta.ca/downes/threads/column041499.htm)).

Downes also notes that joint ventures are necessary because they reduce costs and improve usage, but they "do not work unless the institutions work together, sacrificing (apparent short term) gain for future returns." Indeed, a recent planning report in our state stated: "If Minnesota's higher education institutions - both public and private - are to thrive... they need to see themselves as brokers of educational services, rather than as competitors fighting for enrollment and public funds, and they need to work cooperatively to provide affordable services" (Minnesota Planning, Balancing the Books: Affording College in Minnesota, May, 1998, p.7).

The citizens of our states, our nation, our world - our learners - expect our systems to partner in providing high quality, affordable, relevant, flexible, and focused programs and services that meet immediate and long-term educational needs. They expect us to leverage our resources in the development of joint systems and services that are designed with the learner at the center. Furthermore, all of us are faced with growing competition from around the world as well as from non-traditional
educational organizations.

We have found that faculty, administrators, and staff across our state respond to the MnVU effort generally in one of three ways: (1) tremendous excitement through recognition of the need for institutions to cooperate in developing online programs and resources for learners and a genuine readiness to collaborate with colleagues at other institutions to meet the needs of our citizens; (2) genuine fear that virtual universities and their online resources represent a "second class" form of learning; or (3) a feeling that this represents the next ineffective educational scheme, competition for scarce resources, additional burden without reward, top-down decision forced upon them, or simply the next nuisance keeping them from conducting research.

So, we embarked to meet this mandate without the millions needed to support development of a "full" virtual university. We opted to develop a suite of learner resources through engaging faculty, staff, and people throughout Minnesota who are deeply concerned about the changing role of higher education in meeting the needs of lifelong learners. We worked to develop strong collaborative partnerships so the next phases of our work could be built on a solid organizational foundation. And, we worked to better understand transformative change and the role of change agents.

Our primary purpose is to begin a discussion on identifying criteria for determining if a state (or region) is ready for a virtual university initiative.

In the remainder of this paper

- we share two taxonomies for classifying virtual universities that now dot the higher education landscape;
- we present our initial list of inter-institutional readiness criteria or those criteria that preferably need to be in place, and definitely should be addressed, before beginning a statewide virtual university effort; and
- we describe our key partners and how we have built a statewide partnership for such an endeavor despite the absence of many of these criteria.

### Classifying Virtual Universities

"Most industrialized modern societies are now embarked on providing mass higher education and increasingly this is provided through a market system. Education has become a positional 'good' or commodity which people seek to invest in for personal gain. It is also a social 'good' and a means of ensuring equality of opportunity and routes to a better life" (Teare, Davies, & Sandelands, 1998, p. 8).

In the literature, virtual universities have been classified in different ways, such as by the degree of institutional integration (Smith, 1998), organizational structure (Hanna, 1998), governance structure (Hurst, 1998), economic basis and scope (Athey, 1998), and the degree of innovative technology used (Michel, 1998). What follows is an overview of two of these taxonomies as they relate to building a statewide partnership.

#### Taxonomy based on institutional integration

Smith (1998) focuses on higher education consortia, which are formed to exploit the potential of communications technologies with the ultimate goal of providing "greater scheduling flexibility, greater variety of courses and degrees and better educational value to ... students." According to Smith, it is these consortia that will form "the rough outline of future mega-universities." Currently, Smith argues, these future mega-universities can be categorized based on their level of institutional integration. Thus, Smith differentiates between:

- The Course Broker
- The Collaborator
- The Wholesale Purchaser
The Course Broker

Course Broker consortia list course offerings from member institutions, but they do not offer degrees. Consortium members may share the cost of operating the collaborative, but they typically do not share revenues. This level of institutional integration allows for members to avoid controversial issues, such as revenue sharing, scheduling conflicts, admissions criteria, etc. However, this model does not provide a consistent learning experience for learners.

This is the most frequent consortium model at this point; examples, according to Smith, are the Western Governor's University (WGU), Southern Regional Electronic Campus (SREC), the Michigan Virtual Automotive College (MVAC), and the Iowa Communications Network. The current version of Minnesota Virtual University also would fall under this framework.

The Collaborator

Collaborator consortia, according to Smith, form the next higher level of institutional integration. These consortia have curricular, budgetary, and administrative structures that allow for the sharing of courses (typically rarely offered courses, such as certain language courses), costs, and revenues. Smith finds that community college systems are "particularly well positioned" for this model, because they already share standard admissions policies, open enrollment policies, and often statewide standardized degree curricula.

A typical example, according to Smith is the Maryland Community College Teleconsortium (MCCT).

The Wholesale Purchaser

According to Smith, this model exhibits the highest level of institutional integration and is therefore still very rare. Wholesale Purchaser Consortia "purchase' courses from member institutions, assemble the courses into a degree program and 'resell' the courses and the degree to the distance education student." This model then offers the greatest variety of courses and programs to students while benefiting from the strengths of individual members and competition among members.

Smith did not consider any existing consortium to have reached this level; however, close examples are the Colorado Electronic Community College (CECC) and the part of WGU that offers competency-based degrees.

Taxonomy based on governance structure

Hurst's (1997) taxonomy is directed at colleges and universities to help them evaluate "different structures and governance models for distance learning" in their attempt to meet the new needs for workforce training, retraining, and post-secondary education in general. We highlight this taxonomy as it more closely relates to the different models one might undertake for building a statewide partnership.

Hurst notes that any feature or characteristic of any model can be combined to form yet a different model and therefore provides a set of six scenarios. His scenarios include:

- The Open University
- Governor's University
- Virtual Community College and University
- Institutional Competition and Consumer Advocacy
- Coordinated Collaboration
- Current Structure

The Open University (OU)

The Open University is one possible strategy to satisfy increased demands for learning. However, this
strategy involves the creation of a new independent institution, focused solely on distance learning that would compete with existing institutions for students and would not reduce duplication of courses and degrees. No state in the US has currently proposed such an initiative. In our work on MnVU, the leading administrators of our systems have been extremely opposed to such a model.

Governor's University (GU)

A governor’s university would broker existing distance learning content in the state and would award degrees based on this content as well as offer student and academic services from this central virtual organization. In contrast to the OU, the GU would not develop its own courses. Hurst claims that this model does not reduce course duplication, either, and might in fact increase duplication due to increased competition among institutions. An example of this model is WGU. Again, in our case, administrators and faculty have been opposed to the development of a virtual university that would award degrees.

Virtual Community College and University (VCCU)

In this model, courses and services will be designed and offered by member institutions, which also award degrees and certificates and thus retain their overall autonomy. While this system offers one-stop degree-shopping and tends to involve less inter-institutional conflict than the GU model, the model does not reduce the duplication of course offerings. Leverage could occur, however, through shared marketing costs. A typical example of this model is California Virtual University (CVU), and in the early states of MnVU, we followed this model.

Institutional Competition and Consumer Advocacy (ICCA)

This model embraces the free market and open competition among all institutions in a state. The ICCA would be a centralized neutral student and employer advocacy organization to provide information, marketing, needs assessment, and standards for academic and student services. This model would preserve institutional autonomy and reduce course duplication, but current institutional structures may prevent rapid response to a free-market approach.

This model currently is the closest to how MnVU has developed. We are, however, facing difficulty as our institutions generally are not ready to engage in the "rapid response" needed.

Coordinated Collaboration (CC)

This model would involve a division of labor, with the public higher education system choosing institutions to be primarily responsible for distance learning. The result would be individual institutions with different missions rather than many institutions with an "add-on mission". Cooperative agreements will be made to meet student and state needs. According to Hurst, this model is likely to reduce duplication of effort, but participating institutions will lose some autonomy.

Given that current discussions underway between our institutions (UM and MnSCU) focus on "mission differentiation," this model may be more appealing to some. For example, MnSCU’s community and technical colleges could be the designated leaders in the area of distance learning, and UM could focus its efforts primarily on research on the impact of this effort on learning and economic development in the state. This approach, however, is opposed by those faculty in the UM system who see part of their response to the "land grant mission" as developing distance learning offerings to meet the needs of the citizens of the state. Thus, one could argue that community and technical colleges and universities should partner -- via the MnVU mechanism -- in this effort.

Current Structure (CS)

According to this model, "institutions will continue to develop distance learning courses within their current structure. This model does not reduce duplication of efforts and does not provide any new incentives for reducing costs."
If we are to be most realistic in this article, we would have to say that, given the lack of strong support for MnVU by upper levels of administration and lack of ongoing, adequate support from the legislature most of our state's institutions are continuing to develop distance learning courses within their current structure. We contend that this result stems in large part from the fact that our state was not ready for this initiative; MnVU began as a response to a legislative mandate.

Assessing State Readiness for a Virtual University

Carol Twigg (1999), in her work for the PEW Charitable Trust, has developed a set of "institutional readiness criteria" and "course readiness criteria" for those institutions interested in using technology to increase access, improve the quality of learning, and reduce costs. The set of institutional readiness criteria, in the form of a list of questions, is as follows:

- Does the institution want to control or decrease costs and increase academic productivity?
- Is there a demonstrated commitment on the part of institutional leaders to use technology to achieve strategic academic goals, a commitment that moves beyond using technology to provide general support for all faculty and all courses?
- Is computing firmly integrated into campus culture?
- Does the institution have a mature information technology (IT) organization(s) to support faculty integration of technology into courses? Or does it contract with external providers to provide such support?
- Do a substantial number of the institution's faculty members have an understanding of and some experience with integrating elements of computer-based instruction into courses?
- Does the institution have a demonstrated commitment to learner-centered education?
- Has the institution made a commitment to learner readiness to engage in IT-based courses?
- Is there recognition on the campus that large-scale course redesign using information technology involves a partnership among faculty, IT staff and administrators in both planning and execution? (http://www.center.rpi.edu/PewGrant.html).

These criteria are helpful at the level of the individual institution; that is, they can help an institution determine whether it is ready to engage in a virtual university partnership. We have found, however, that for a statewide partnership effort such as a virtual university, even a group of institutions who are able to respond positively to the above questions may not be able to foster the development of a virtual university as this is also dependent on inter-institutional readiness for such a major initiative.

Scott G. Rosevear (1999), in his comparative case study of eight organizations from higher education, industry, and state governments involved in the development of virtual universities, also argues for the need to assess readiness before developing a virtual university. He has developed the following set of questions to assess readiness:

- What is the state's technological infrastructure?
- How prepared are the traditional colleges and universities to support virtual learning environments?
- Do they all have equal technological capabilities?
- What is a reasonable prediction for how long it will take before the virtual university is operational?
- What are the resources gaps, and how will they be filled?

Rosevear's second question regarding the preparation of colleges and universities to support virtual learning environments most closely aligns with Twigg's institutional criteria. Based on our experience, we would add the following criteria for determining if a state is ready for a virtual university initiative:

- Learner and faculty needs. Are there learning opportunities otherwise denied by existing traditional institutions? Are faculty being denied the opportunity to offer their expertise in innovative ways to the citizens of the state?
- Champions of change. Is there both vertical and horizontal support across the institution and systems? Is there buy-in by the state's institutions and by key departments, programs, and faculty?
Is there the potential for multi-state or regional collaboration and support?

- **E-commerce strategy.** Does the state have an e-commerce strategy, and does this strategy include an emphasis on lifelong learning (i.e., innovative partnerships between educational institutions and industry)?

- **International strategy.** Does the state have an international strategy, and does this strategy include an emphasis on lifelong learning (i.e., innovative partnerships in education, the ability to look worldwide for learning opportunities)?

- **Identified "crucial" industries and a clear economic development plan.** The Michigan Virtual Automotive College began in large part to protect a crucial industry in the state. Has the state identified its most crucial industries to preserve, protect, and foster? The virtual university should preserve, protect, and foster lifelong learning in these industries.

- **A climate that supports collaboration.** Are incentives in place to foster collaboration across systems? Rosevear's list of criteria includes the need for institutions in the state to have equal technological capabilities. We would argue that in addition to the need for a technological infrastructure, a state needs an environment that encourages and supports collaboration across public, private, proprietary, corporate, and other educational systems. The human resource infrastructure and commitment is the greatest need in establishing a statewide virtual university.

- **Resources.** Is a minimum of five million committed to the initiative? This criterion seems obvious, yet most virtual university efforts have failed simply because they, in reality, did not have the monetary resources to build and sustain such an effort. Rosevear writes about the need to recognize the time it takes before a virtual university can be expected to sustain its operation. We would state that a minimum amount of time to sustain such an effort would be five years; however, most virtual university efforts funded by state legislatures result in a two-year funding commitment along with a large number of people who assume that the resulting virtual university will do everything imaginable for an extremely low price.

- **A commitment to learners.** Do the state's institutions foster the development of learner-centered systems? So much has been written about the need for learner-centered systems that we hesitate to add this to our list of criteria. However, most institutions focus first on what the virtual university effort brings to them rather than on what it should bring to learners.

We have identified these criteria as we have worked to develop our state's virtual university. In some respects it is like determining when to have a family. If you wait until all your criteria have been met (e.g., enough resources, a large enough home, enough time), you will never do so. Thus, we recommend beginning such an initiative from the standpoint of advancing a partnership. Identify and work with key stakeholders and begin at the level of establishing trust and encouraging large amounts of communication.

### Advancing a Partnership Effort

A true partnership is more than cooperating or collaborating: it is a new way of life.

Twenty-four college and university presidents in a recent Kellogg Commission report on the Future of State and Land-Grant Universities (1999) stated that in order to create a "learning society," education should be accessible and promoted to people of all ages. The report specifically suggests that universities partner with elementary and secondary schools, businesses, and governments to increase access and the development of lifelong learning resources.

Despite lacking crucial state readiness criteria, MnVU does represent such a commitment to partnership. The partners that sustain the effort include state agencies, higher education institutions, and private organizations. These partners are:
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In addition, thirteen task teams made up of faculty, administrators, staff, and people from industry, community groups, and government agencies, worked on the following areas:

- Joint powers agreement
- Legislative request
- Industry partnerships / Rapid response mechanism
- Faculty and staff training and development
- MnVU facilitation (plan for online and face-to-face ongoing feedback mechanism)
- Marketing
- Policy development
- Community partnerships
- Technical tests at cooperating institutions and organizations
- Evaluation
- K-12 Connections
- Minnesota transfer agreement
- UMN and MnSCU distance education collaboration

Lessons Learned Thus Far

We know that characteristics of surviving and thriving organizations in the next century will, above all, include the capacity to develop, maintain and profit from working in strategic, collaborative relationships. Organizations must come together for strategic purposes to accomplish specified and often highly specialized tasks or goals. Our institutions must bring together the best team members to accomplish the tasks in a flexible and highly responsive nature. While higher education continues to increase in complexity, specialization, and bureaucracy; thriving institutions of the future will be required to accomplish focused and targeted goals in more rapid timeframes than ever before and within a context of fewer public resources.

In order to meet the needs of rapid response in complex setting, we must partner in new and unique ways. This requires leadership skills that include "thinking in the future tense," a strategic context described by Jennifer James (1997). It requires that we come together in strategic alliances which can meet the divergent needs, provide added value the process, and maximize the use of both human and fiscal resources.

However, universities are particularly difficult to move towards lasting partnerships. This is due to the fact that they are highly complex and they exhibit organizational connections that lack cohesion of purpose, which may better be described as "organized anarchy." The lack of cohesion in universities is frequently attributed to goals that are often ambiguous, unclear and diffuse. This is due to multiple levels of authority and control from faculty within departments, departments within colleges, and colleges within universities. Hutchins (1968) suggests that the only thing connecting a university is a central heating system, and Giamatti (1979) proposed that a university was less an ecosystem than a swamp.

Perhaps the greatest single factor distinguishing between universities and other types of organizations is related to authority and power relationships. The university has what has been described as a "fluid and amorphous" decision making structure. It is a reflection of a large number of participants in the process and "hundreds of largely autonomous actions taken for different reasons, at different times, under
different circumstances by different people." The greatest challenge is how to get everyone in on the act and still get action. (Robinson & Daigle, 1999, p. 6).

Brandenburg and Nalebuff (1996) describe a new way of operating as "co-opetition" which is characterized by the following:

- Customers valuing what partners do together more than what they do individually.
- Suppliers finding it more attractive to supply to both individuals (or institutions) instead of individually.
- Supply-side complementarities becoming the norm.
- Institutions thinking how they might complement each other and maximize the use of resources and delivery of services.
- Institutions as recognizing each other as equal partners in creating more value for customers.

This reflects a very new way of approaching the way organizations approach business. It is particularly difficult for higher education because a majority of people in higher education do not think in terms of cooperation, collaboration, partnerships, or co-opetition. Academe is still the strong hold of individual quests for knowledge.

Despite again what appears as obvious, Robinson and Daigle (1999), in their article on the factors that affected California State University's innovative technology initiative, conclude that factors underlying public-private partnerships such as the one in California are fragile at best:

The probability of success is dependent on many factors... the basic premise is that a university's preparation or readiness prior to a partnership initiation is the single most important contributor to such success... Public institutions must change in fundamental ways before courting private partners, not during or after that process has begun. A long hard look in the mirror prior to partnership development will prepare an institution for dealing with the structural barriers to its success. (p. 4).

This reflects the important lesson of understanding what partnering means, particularly across significantly different organizations such as public and private entities.

Robinson and Daigle (1999) list the following features common to successful partnerships:

- The partnership provides for efficiencies in terms of being able to do more with less.
- The partnership expands the resource base of all partners, often through access to resources of a highly specialized nature.
- The partnership offers flexibility for meeting changing needs and conditions.
- The partnership provides for new ventures not otherwise possible or leveraging assets and capabilities to take advantage of sudden opportunities.
- The partnership allows for risk sharing. By pooling risks, organizations may be more likely to take them in the first place.
- The partnership speeds up the process of innovation in products or services again by pooling expertise and resources; keeping current is particularly important in the area of information technology.

And they go on to attribute failure of the public private partnership in California to:

- The inability of CSU and prospective partners to meet their respective financial objectives or to develop a mutually acceptable distribution of risk.
- An inadequate appreciation on the part of all partners of the preparation required to engage in a partnership. (p. 8).

As Robinson and Daigle (1999) note, the desire to increase institutional resources and conduct business differently is a necessary condition but not adequate in itself to form a successful inter-institutional partnership. Each university, each partner, must prepare in advance before attempting to form a virtual...
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university to help determine if it is able to engage in such a relationship (p.8). The potential that a virtual university partnership holds can be realized, and risks of failure reduced only if all parties to the partnership take important steps to establish trust, communicate openly, and assess state and institutional readiness from a variety of perspectives.

So, how does one best advance a virtual university partnership?

Based on our experience thus far, we know that a virtual university initiative needs a vision as well as leadership committed to a future that cannot be perfectly defined. It needs the support to allow it to grow toward a future that is continuously articulated; it needs the flexibility to jump on opportunities that arise during its development and implementation. To jump start such an initiative, you need agreement on clear goals and principles, a commitment to collaboration, acceptance of creative partnerships, and champions at multiple levels who are provided with the time and support to succeed.

References


Abstract

Category: Papers Presented at EDUCAUSE annual conferences

ID Number: EDU9919
Title: Transforming Higher Education: Building a Statewide Partnership
Author: Ann Hill Duin, Linda L. Baer
Organization: University of Minnesota, Minnesota State Colleges and Universities
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