This paper was presented at the 1996 CAUSE annual conference. It is part of the proceedings of that conference, "Broadening Our Horizons: Information, Services, Technology -- Proceedings of the 1996 CAUSE Annual Conference," page 8-5-1+. Permission to copy or disseminate all or part of this material is granted provided that the copies are not made or distributed for commercial advantage. To copy or disseminate otherwise, or to republish in any form, requires written permission from the author and CAUSE. For further information, contact CAUSE, 4840 Pearl East Circle, Suite 302E, Boulder, CO 80301; 303-449-4430; e-mail info@cause.org.
The Western Governors University
to be presented at CAUSE96
Thursday, December 5, 1996; 10:00 am

By:

Don E. Gardner, Ed.D.
Chief Information Officer
Weber State University
1005 University Circle
Ogden, UT 84408-1005
phone: (801) 626-7660
fax: (801) 626-7922
e-mail: dgardner@weber.edu
url: www.weber.edu

E. Jeffrey Livingston, Ph.D.
Associate Commissioner for Academic Affairs
and Co-director, Western Governors University
Utah State Board of Regents
3 Triad Center, Suite 550
355 W. North Temple
Salt Lake City, UT 84180-7100
USBR phone: (801) 321-7121
WGU phone: (303) 623-9378
USBR fax: (801) 321-7199
WGU fax: (303) 534-7309
e-mail: jlivingston@cc.utahsbr.edu
USBR url: www.utahsbr.edu
WGU url: www.westgov.org

Alan Livingston, Ph.D.
Director of Communication Arts & Technologies (CATS)
Weber State University
2903 University Circle
Ogden, UT 84408-2903
phone: (801) 626-7576
fax: (801) 626-6861
e-mail: alivingston@weber.edu
url: www.weber.edu
Abstract

The authors represent three different perspectives on the Western Governors University (WGU), a collaborative foray into on-line higher education sponsored by the Western Governors Association. They discuss: (1) the background, intent and purposes of WGU [by one of its Co-directors], (2) current and anticipated impacts at the institutional level [by the CIO of a participating institution, Weber State University], and (3) current and anticipated impacts on individual faculty and support staff [by a lead faculty support person at Weber State University]. The authors also describe WSU Online, a specific Weber State University response to the challenge of providing educational opportunities to new groups of students using information technology.
The Western Governors University

Background

In February, 1996, members of the Western Governors Association (WGA) endorsed and approved a document entitled From Vision to Reality. That document stated the vision for a new kind of institution that would: (1) broaden access to higher education by fostering the use of advanced technology for the delivery of educational services, and (2) provide mechanisms for the formal recognition or certification of learning achieved, regardless of the source.

A team was formed to develop an implementation plan based on design criteria that would ensure that the institution would be “market-oriented, independent, client-centered, degree-granting, accredited, competency-based, non-teaching [emphasis added], high quality, cost-effective, regional, and quickly initiated.” The WGA also contracted with the National Center for Higher Education Management Systems (NCHEMS) and the Western Cooperative for Educational Telecommunications (a subsidiary of WICHE) to complete several initial tasks. Assistance was also provided by IBM and the law firm of Dow, Lohnes & Albertson.

Concepts/contributing factors

After six months of preliminary work, the design team identified a list of observations that describe the basic assumptions, concepts and factors contributing to the creation of the Western Governors University (WGU). These observation are discussed in detail in the previously cited report and are presented in summary only here as follows:

• The Western Governors University can provide substantial benefits, including avoided costs, to all of its constituent groups in relation to its expected direct costs.

• Individual students will have improved access to learning, with many of the obstacles of time and place removed.

• Students will have an avenue through which learning -- regardless of how or when acquired --can be recognized and converted into competency-based certifications designed to be acceptable to both employers and academic institutions as appropriate.

• There is a strong foundation on which to build. There are already many higher education institutions and other providers delivering educational materials to distant sites through advanced technology who are willing to submit material for inclusion in the WGU catalog and to utilize the WGU to reach a broader audience than heretofore has been possible.

• Attention to quality must be a priority. There are many skeptics regarding the quality of education offered through nontraditional means, and the rigor of related assessments and certifications.

• Many of the initial concerns about the WGU were centered more around economic than educational issues. Many institutions of higher education feel they are losing the competition for public funds and already have too few funds to fulfill the missions they have been assigned. Their concern is that any state funds provided the WGU will come at their expense.

---

• Start-up costs will be significant. Much of the necessary information infrastructure (e.g., the catalog and administrative systems) cannot be built in pieces or stages. The basic operating mechanisms of the WGU will have to be of high quality and fully functioning before provision of services to students can commence.

• There are statutory and regulatory barriers to the WGU at both the state and federal levels. At the heart of many of these barriers is the difference between current policies directed towards traditional institutions physically present in a state, and new policies that will be required for programs delivered across state lines by technology and based on competency.

• The WGU will make its greatest contribution if it is clearly focused on those few functions which can add the greatest value to existing providers and the array of services they already provide.

• In spite of the identified risks and concerns, the design team believes that the WGU can provide significant benefits to all of its constituent groups at lower cost than current approaches.

**Necessary conditions**

A basic assumption is that advanced information technology holds the potential for addressing problems that have plagued traditional postsecondary education for years. These include: providing appropriate and flexible access to educational opportunities for place-bound or work-bound students, making available -- at reasonable cost -- the wealth of educational resources generated by the information age, providing certification of student skills and knowledge that employers can depend on, and providing relevant educational opportunities to students at a price they can afford.

Reactions to the announcement of the WGU include some open skepticism that these objectives can be met. In addition, even those who have already participated in significant on-line educational experiences express concerns that education lacking in the direct person-to-person interaction that occurs on a traditional college campus will be missing important, if not essential, components. In the face of these challenges, the WGU effort is emphasizing the following necessary conditions to success:

• Removal of the obstacles of both time and place to postsecondary education opportunities for individual and corporate citizens of the West.

• A means for learners to obtain formal recognition of the skills and knowledge obtained outside a traditional higher education (campus) context and/or from multiple providers through the assessment and certification of competency.

• Joint development of new learning and assessment materials among states and with private entities.

• Technology standards that will ensure connectivity.

**Purposes/expected results**

The WGU is focusing its initial efforts on: (1) linking employers and academic institutions in setting skills standards, (2) linking individuals seeking assessment of their competencies with assessment providers, (3) certifying competence in several domains of learning, i.e., transferrable skills (communication, quantitative reasoning, etc.), vocational skills, general academic knowledge, and

---

2For example, see Emily Weiner, “Reflections of an On-Line Graduate.” *The EDUTECH REPORT*, August 1996, pp. 1, 6-7.
specific disciplinary knowledge, (4) linking individuals seeking to enhance their level of competence in one or more of these areas with providers of educational programs/courses/modules who can meet the learners' requirements regarding time, place, and content of services delivered, (5) providing support services needed to help ensure that students receive appropriate guidance and that barriers to access to educational offerings are minimized or removed entirely, (6) acquiring and/or pooling the financial resources needed to develop learning modules and assessment tools in areas that are of high priority and in which the market has not already responded, and (7) providing credentials to individuals -- academic degrees and industry-recognized certificates -- based on assessment of competencies.

Eventually the scope of learning opportunities and competency assessments made available through the WGU should encompass those provided by traditional institutions of postsecondary education, ranging from remedial/developmental instruction to graduate education, as well as those required to support industry-wide (as opposed to company-specific) certification programs. However, as a practical matter, initial efforts are focusing on areas where learning materials/assessment tools are currently available and where participating states and partners in higher education and industry place high priority.

**Institutional challenges**

Mark Twain once said, “All you need in this life is ignorance and confidence; then success is sure.” From an institutional, as opposed to regional perspective, there is plenty of ignorance with regard to the requirements, costs and impacts of the WGU. Unfortunately, there may be insufficient confidence to ensure success at the local level. In other words, one of the major threats to individual institutions may be a lack of will or confidence sufficient to capitalize on the opportunities afforded by the WGU.

Clearly, faculty are becoming increasingly concerned about the impact of technology on their traditional roles. At the same time, teachers are becoming more and more dependent on E-Mail, word processing, presentation graphics and multimedia to communicate with and educate their students.

At Weber State University (WSU) the President’s Council, Faculty Senate, Academic Resources and Computing Committee, Administrative Information Technology Committee and Teaching and Learning Forum are concerned with the potential impacts of the WGU on the future. Against a backdrop of declining part-time enrollments -- fueled by the area’s lowest unemployment rate in 42 years -- and resulting budget reductions, anything that might reduce enrollment even further is viewed with open hostility. The potential that the WGU might open the doors to new, as yet untapped pools of students to be taught by Weber State University faculty on-line has yet to be demonstrated, so there is naturally a high degree of skepticism among most faculty.

In Utah, state budget surpluses in recent years have made it possible for the state legislature to fund the Governor’s Higher Education Technology Initiative. This program has provided millions of dollars to improve the higher education technology infrastructure in public colleges and universities. Although faculty and academic administrators appreciate the resulting improvements in computer labs, networks and so forth, these large expenditures do not go unnoticed in areas where painful budget cuts are in process. Also, the fact that the Higher Education Technology Initiative funds are mostly one-time monies raises doubts about the institution’s ability to sustain an acceptable level of technology support when the state economy eventually enters a down cycle.

---


4A 14,000 student public institution located in Ogden, Utah.
The relative high cost of technology-enhanced education is also a major concern. In the face of a rapidly growing state population and increasing demands in all social service areas, technology is being touted as a potential cost-saver. Current political wisdom is that if a modest investment in technology can slow the demand for new “bricks and mortar” appropriations to meet the need for new educational facilities, then a net cost savings will result.

Unfortunately, no one has a grasp of the true costs associated with the accelerating pace of technological change. In business and industry some leaders have already concluded that microcomputers, for example, are now essentially a “consumable” (like toilet paper). When we are told that microcomputers are essential to our business and educational processes but their average technological life is now less than three years (18 months for a laptop), we begin to wonder if an investment in a traditional classroom building might not be such a costly alternative after all. Of course, the cost of the hardware in this case is the smallest part of the total investment. When the true costs of software (including the inevitable upgrades), networking, training and support are figured in the costs are much higher, as the recent Gartner Group statistics clearly show.

In spite of concerns and misgivings, there is already sufficient evidence to suggest that technology can enhance student learning in significant ways. Higher Education Technology Initiative projects at Weber State University are in their third year and the number of committed faculty is increasing slowly but surely. Although the faculty who are teaching with technology report that they are working harder, they also report that they are generally better prepared and excited about what they are doing. In areas where Weber State University has well established, highly acclaimed programs, we believe that the WGU may significantly increase demand. To this end, WSU Online was created.

**WSU Online as a response to the WGU**

The creation of the WGU epitomizes the challenging new demands that are being made not only of Weber State University, but of institutions of higher education throughout the country. These include the demand for greater *convenience*, the demand for greater *productivity*, and the demand that *technology* be used not only to meet the first two demands, but also to improve the *quality* of higher education. *WSU Online* has been conceived as a response to these demands.

**Convenience**

Convenience is usually thought of in terms of *distance* -- university services are inconvenient if you have to drive a hundred miles to get them. In Utah, only a small percentage of the population is inconvenienced in this respect. The demand for convenience has therefore been taken less seriously than in some states, and *distance education* has developed slowly.

Convenience may also be thought of in terms of *time*, however. You don’t have to live a hundred miles away to find inflexibly scheduled services inconvenient. You just have to have a job and/or family responsibilities. The demand for greater convenience in this respect may be viewed as a symptom of a trend to which Hammer and Champy refer in *Reengineering the Corporation*:

> Since the early 1980s, in the United States and other developed countries, the dominant force in the seller-customer relationship has shifted. Sellers no longer have the upper hand; customers do. Customers now tell suppliers what they want, when they want it, how they want it, and what they will pay. This new situation is unsettling to companies that have known life only in the mass market . . .
[C]ustomers no longer behave as if they are all cast in the same mold. [They] demand products and services designed for their unique and particular needs . . . [They] demand that they be treated individually. They expect products that are configured to their needs, delivery schedules that match their manufacturing plans or work hours, and payment terms that are convenient for them . . .

In short, in place of the expanding mass markets of the 1950s, 1960s, and 1970s, companies today have customers . . . who know what they want, what they want to pay for it, and how to get it on the terms they demand.5

There are problems, as many have pointed out, with regarding students as customers, and failing to recognize that the relationship between an educational institution and its students is different from the relationship between a business and its customers. Nevertheless, customer dominance is rapidly translating itself into a demand for courses and other services that are offered in forms and at times, as well as in places, that are convenient for students. Moreover, competitors are emerging who are willing to respond to this demand.

Productivity

The demand for greater productivity is being pressed by politicians and other critics who have begun to examine higher education from the perspective of the recent experience of business. In the early 1980’s, U. S. business seemed to have lost the ability to compete with Japan and other foreign competitors. Our prices were too high, our quality was too low, and consumers weren’t buying. The nation’s economy was at risk, and pseudo-patriotic “Buy American” campaigns did not solve the problem. The problem wasn’t patriotism, it was productivity, and as soon as U.S. businesses admitted it and did something about it - by means of total quality management, reengineering, downsizing, and so forth, they were able to reduce costs, improve quality, and become competitive.6

U.S. higher education -- in the view of its critics -- is now faced with a similar situation. Our prices (in the form of state appropriations as well as tuition and fees) are too high, our quality (due to our long-standing failure to conduct any sort of meaningful assessment) is questionable, and our consumers (taxpayers and their elected representatives as well as students) are threatening to stop buying.

The problem, according to the critics, is the same problem that faced American business -- productivity -- and it needs to be solved in the same way, i.e., by reducing costs and improving (or at least better assessing) quality.

The parallel between the recent experience of U.S. business and the present situation of U.S. higher education is far less perfect than the critics would have us believe. As society becomes increasingly unwilling to bear the costs of higher education, however, we may be forced to ask whether there is not more of a parallel than we as educators have been willing to concede.


6We are aware of the fact that this analysis is oversimplified. It is in just such an oversimplified form, however, that it is most often applied to higher education.
Technology

In Utah, the demands for greater convenience and productivity are compounded (and frequently confused) with political pressure to incorporate technology into the educational process for other reasons. Technology is viewed by key politicians as the means of achieving the increased convenience and productivity they and their constituents want. However, technology is also viewed by politicians as a means of improving quality - a view with which the higher education community has enthusiastically concurred. This concurrence has enabled politicians and educators to collaborate on the Utah Higher Education Technology Initiative.

Concurrence on the issue of quality has also served, however, to mask a fundamental difference of opinion concerning the purpose(s) of the Higher Education Technology Initiative. For most politicians, we believe it has three main purposes: to increase convenience, to increase productivity, and to improve quality. For most educators, we believe only the last of these purposes is considered legitimate.

Convenience and productivity are not criteria by which educators (unlike businessmen) are accustomed to evaluating and attempting to improve their performance. They can readily see how quality might be enhanced by the use of technology, but they fail (or pretend to fail) to see how -- except at the expense of quality -- technology can be used to increase convenience or productivity, and they accuse the Governor and Legislature of being naive for suggesting otherwise. There are, moreover, those who fear that greater productivity through the use of technology will result in fewer jobs for educators.

The Governor and Legislature are not naive. They do not believe that the use of technology automatically results in greater convenience and/or productivity. What they believe is that ways can be found to use technology to achieve greater convenience and productivity. This seems a reasonable enough hypothesis, but it is one that the higher education community has shown extreme reluctance even to hear, much less to test.

As for the fear that greater productivity will result in fewer jobs, the position of the Governor and Legislature is that the growing demand for higher education (in Utah, at least) will keep educators’ jobs secure for the foreseeable future. Greater productivity is needed not to reduce the size of the present system of higher education, but to avoid the need for a perceived unaffordable expansion.

We believe that the reluctance of the higher education community to embrace the goal of using technology to increase convenience and productivity has strained relationships with politicians and ultimately contributed to development of the WGU. As mentioned earlier, the consequences of the creation of the WGU are impossible to predict. The Governor’s proposal may be viewed, however, as one more sign of the times -- one more warning that a brave new era is beginning, and that if we don’t respond to the demands of this era, someone else will.

Response

Weber State University has made considerable progress in the three years that have passed since the Governor began promoting the use of technology. A Chief Information Officer (CIO) was hired and an Information Technology Division was formed. An electronic mail system was implemented that can be used by all students as well as all faculty and staff. Faculty, staff, and students have been given access to the World Wide Web, and a Web presence for the University has been created. A contract with campusMCI was signed for off-campus access to the Internet. Teleconferencing and video conferencing capabilities have been significantly expanded and a network of new multimedia classrooms was created. We have also experimented with technology-based instruction at the
University’s Davis County campus, on the state’s two-way interactive video conferencing system (EDNET), and on the Internet.

*In relation to the criteria of convenience and productivity, however, our progress has been limited.* Technology is being used primarily to enhance the quality of courses and programs, not to make them more convenient or productive. The apparent exceptions to this generalization -- the aforementioned technology-based courses offered at the Davis County campus -- have been more convenient in terms of the distance some students have had to travel to attend class. They have been scheduled like regular courses, however, and have consequently not been more convenient in terms of student time. It would be difficult to argue, moreover -- considering the facilities, support, and preparation involved -- that any of these courses has increased productivity or reduced costs.

In a world of customer dominance, political demand for productivity, and virtual universities, this response seems inadequate. It is our hope that the creation of *WSU Online* will initiate a more focused and purposeful response.

**Definitions and Premises**

To explain our proposal, we need to repeat some common definition of terms and basic premises. *Synchronous communication* is communication that occurs in real time. Speaker and listener, or sender and receiver, must be simultaneously present (or connected) in order for synchronous communication to occur. Face to face conversation, classroom instruction, telephone conversation, and video conferencing are examples of synchronous communication.

*Asynchronous communication* is communication that does not occur in real time, and consequently does not require the simultaneous presence of sender and receiver. The sender’s message is recorded in some way for later response by the receiver. Printed materials, voice mail, video recordings, and multimedia are examples of asynchronous communication. So are electronic mail, computer conferencing, and the World Wide Web - three new forms of asynchronous communication that have been made possible by the expansion and democratization of the Internet.

*The fundamental premise upon which this proposal is based is that the convenience and productivity of many University services may be increased -- without compromising their quality -- by selective and judicious replacement of synchronous with asynchronous communications.* This is not to say that convenience and productivity are always increased when synchronous communications are replaced with asynchronous. Nor is it to say that quality is never compromised. It is simply to premise that ways can be found to increase the convenience and productivity of many services -- again, without compromising their quality -- by replacing selected synchronous with asynchronous communications.
It would be an exaggeration to say that the premise we have stated is an established or widely-accepted one. It is consistent, however, with proposals made by Levin, Huber, Guskin, Plater, and others who have tried to conceptualize an adequate response to the new demands that are being placed on higher education. Given this consistency, given the urgency with which the new demands are being pressed by the Western Governors Association and given the new possibilities for asynchronous communication that have been created by the development of the Internet, the premise we have stated seems to us to be one that is worth testing.

Selective replacement of synchronous with asynchronous communications will result in the creation of at least three new kinds of courses, which we will refer to as restructured, relocated, and online courses:

- A **restructured course** is a course in which half or more of the class meetings that would normally have been required have been replaced by the use of asynchronous communication technologies.

- A **relocated course** is a course which, in addition to being restructured, is taught in a location or locations other than the Ogden campus, either in person or by means of video conferencing, audio conferencing, and/or other synchronous communication technologies.

- An **online course** is a course that is taught entirely by means of asynchronous communication technologies.

These are the kinds of courses the University needs to offer, we believe, to respond to the demands identified above. If our fundamental premise has any validity, such courses will be more convenient for students; they will be more productive; and it will be possible to create them without compromising the quality of instruction. New kinds of courses will not be sufficient, however. Adequate response to the demands of the new era will also require new degree and certificate programs comprised of these kinds of courses. And students enrolled in these programs will need new kinds of support services.

**WSU Online**

With these definitions and premises in mind, we invite you to imagine WSU Online as the Internet-based point of access and locus of support for restructured, relocated, and online courses, and for degree and certificate programs comprised of these kinds of courses. WSU Online will be the door, if you will, through which students will pass to get to these programs, and inside the door there will be a lobby, and in the lobby there will be a whole range of services, including online admission, online registration for the course(s) they wish to take, online purchasing of the textbooks and other materials.

---


they need, online advising, and so on. To get to some of the courses that are available, a student may need to leave the lobby and get in his/her car and drive a few miles. But the rest of the services he/she needs, or most of them, will be right there in the lobby, as elements of *WSU Online*.

The door and the lobby are metaphors, of course. In reality, *WSU Online* will take the form of a *menu of services* on a computer screen. (More specifically, it will be a page on the World Wide Web, with links to pages representing the various courses and services that are available.) As presently conceived, this menu of services will include the following items:

**WSU Online Menu of Services**

- Admission
- Orientation
- Degree and Certificate Programs
- Courses
- Bookstore
- Library
- Support Services
- Records and Graduation
- Career Services
- Continuing Education

Several of these items warrant further discussion: (1) following the lead of several other universities nationwide, we will collaborate with the Admissions Office in the creation of an *online admission procedure* for students who are interested in taking *WSU Online* courses, (2) we will also work with Academic Advisement in the creation of an *online orientation program* that will help *WSU Online* students clarify and focus their academic and career goals, (3) in harmony with the WGA, we will eventually provide access via *WSU Online* to a variety of degree and certificate programs comprised of restructured, relocated, and/or online courses, (4) it is also our intention to collaborate with the Registrar’s Office in creating an *online registration procedure* for all *WSU Online* courses, (5) we will collaborate with the Bookstore in creating an *online procedure for purchasing textbooks and other materials* for *WSU Online* courses, (5) working with the Library, we will extend all current on-line library services to *WSU Online* students and develop other specialized library services as appropriate, and (6) in addition to the various support services (Admission, Registration, Bookstore, Library) already mentioned, we will provide access via *WSU Online* to additional services that are important to the success and satisfaction of *WSU Online* students as they are identified.

**Benefits**

The fundamental dilemma facing U.S. higher education, according to former Weber State University Provost Bob Smith in a recent interview, is:

. . . a collision between the increasing need for people to have postsecondary education, at the same time that they have a decreasing ability to pay tuition, and a decreasing willingness on the part of politicians to invest in higher education as a public utility. The only solution I see to this dilemma is to put more responsibility on the students for their own learning, and in that regard technology can be a big help, particularly computer technology. This is going to require faculty to find different ways to structure the learning environment for students. And that’s a scary thought. But it’s something I think is absolutely necessary. There’s no way we’re going to move ahead without rethinking the way we do education.
In addition to responding, either collaboratively or competitively, to the WGU, the most important benefit of *WSU Online* will be to help us confront, in a constructive rather than complaining way, the dilemma that is facing U.S. higher education, and the new demands that are being placed on us by students and politicians. It will motivate us to find better and different ways to structure the learning environment for students, and begin to rethink the way we do education in ways that will potentially benefit generations to come.