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ABSTRACT

Unlike many other countries of the world, the United States and Canada have yet to use distance education as a deliberate instrument of a comprehensive public policy agenda. Despite this shared failure to use distance education to advance public policy, the individual states of the United States and Canada's provinces differ widely in their distance education operations. Some states/provinces have well-coordinated and technically sophisticated distance education systems, whereas others appear to have little interest in developing any distance education capability at all. Existing U.S. and Canadian distance education programs/practices may be characterized in terms of four descriptive/conceptual models that constitute a nonpolicy-oriented to policy-oriented continuum: laissez-faire, consortium, coordinating board, and comprehensive. The conventional wisdom has been that most educators would aspire to a more student-centered model of distance education, whereas policymakers would possibly dictate a more institution-centered approach. A study of distance education in the United States and Canada has shown the opposite to be true. Encouraging signs of increased efforts to improve distance education and use it as a public policy tool are, however, becoming evident at both the government and institutional levels. (Appended are a 22-item reference list and bibliography of 15 state reports on distance education.) (MN)

[Draft - please do not quote without permission]

Distance Education as an Instrument of Public Policy

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Introduction

Distance education, defined here as education that takes place when the learner and instructor are at separate locations, varies substantially across the world. In many countries, such as the United Kingdom and Indonesia, distance education is linked to a national agenda and addresses particular economic and social objectives (Ellis, 1986, p. 26). In North America, such use of distance education as a deliberate instrument of a comprehensive public policy agenda has yet to be achieved.

Distance education activity in the United States often revolves around beguiling technology and technological advances. Bates (1991) argues that "a single technology," the hallmark of American distance education, is not inevitable and can be seen as part of the distance education learning curve "in a country where distance education has been slow to develop" (p. 12). Rockman (1991) reminds new and old distance education advocates that technology has been "routinely touted as a single, simple yet elegant, answer" that will "prevent dropouts and dullards" (p. 25). This *technohype*, as he calls it, is characterized by "extremes in promises and little evidence in performance," and often appears to be "a solution seeking a widely-shared problem." He chides himself and fellow educators: "By this time, we should know better--and so should our legislators and policy makers." "Nevertheless," he continues, "it doesn't stop them--and us--from proposing, supporting and funding stand-alone solutions that have no chance of having significant impact on our complex educational system" (p. 26).

A similar absence of policy focus prevails in Canada. Rothe (1986), for example, describes distance education in Canada as a "national potpourri" (p. 22). According to Ellis (1986), "there is no national policy for distance education" in Canada. As a result, "national goals such as the removal of regional disparities or the furtherance of human resource development cannot be addressed by a central authority as they are by distance universities" in Europe and Asia (p. 26)

In the U.S., Carol Frances (1986) blames such "external forces" as "public policy decisions to form institutions and programs as a response to perceived national political, or economic interests" for the difficulty in predicting future college enrollments. The dread public policy decisions she censures, however, are imaginary, at least with regard to distance education. While there is *some* evidence of state and national interest in distance education (see, for example, *Linking for Learning*, a report by the United States Office of Technology Assessment, 1987, or a variety of recent state reports on educational technology), current government interest in distance education centers on short-term technical, regulatory, administrative, and cost issues rather than on developing distance education as an instrument of future-oriented public policy regarding economic and social issues crucial for the U.S. to participate fully in an increasingly global economy.

With regard to the distance education landscape in North America, there is no denying a genuine flurry of activity and substantial investment of public funds, but the various approaches are

primarily *institution-driven* and *institution-centered.* Only in the U.S. and Canada, for example, do distance educators see the "disabled, incarcerated, or temporarily home-bound, such as pregnant women, parents of small children, and the injured" as "untapped markets" (Hudspeth, p. 150-154). Only in North America do distance educators see "access"--*not* in terms of students' access to education opportunities--but as institutions' access to the "student market" (Quigley, 1989, p. 4; see also Mugridge, 1986, p. 21, for further evidence of the "marketing" of distance education in Canada). This emphasis on the "marketing" of distance education trumpets the entrepreneurial character and institutional ownership of distance education in the U.S. and Canada, a sharp contrast to the student development character and national leadership in distance education elsewhere in the world.

While North American states and provinces providing distance education are similar, for the most part, in their failure to conceive of distance education as an instrument of public policy, they differ widely in their distance education operations. Some states in the U.S. have well-coordinated and technically-sophisticated distance education systems. Others appear to have little interest in developing any distance education capability at all. At least fifteen states[1] currently are engaged in planning for or implementing a new or better coordinated statewide distance education system.

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[1] E.g., Alabama, California, Indiana, Idaho, Kansas, Massachusetts, Missouri, Montana, New Mexico, North Dakota, South Carolina, South Dakota, Tennessee, Vermont, and Washington.

In Canada, too, there is little similarity in distance education across the provinces. In some provinces, for example Alberta and British Columbia, distance education activity is high; in others, such as Ontario and Quebec, the activity level is modest; and, in the Atlantic Provinces and northern territories, distance education is virtually non-existent. One reason for this disparity in activity is that education policy in Canada emanates from local, not the federal, government (a condition that obtains in the U.S. as well). Thus, Canada has "not one but twelve educational systems, one for each province and territory" (Ellis, 1986, p. 25-26).

In the United States, even greater diversity is found--in Quigley's (1989) words, "a plethora of distance education programs and competing organizations" can be found across (and even within) the states (p. 3). Moore (1988) warns U.S. distance educators to "be concerned about the fractured nature of [their] emerging field." "Programs are planned and taught," he notes, "but seldom in coordination with each other" (p. 1).

In addition to the varying degrees of interest in distance education, states in the U.S. vary also in the populations they attempt to serve. Some states focus almost exclusively on elementary and/or secondary school students and, perhaps, teacher education. Others focus on postsecondary education, and a few, on business and industry. Some states attempt to serve all three client groups.

State-level coordination of distance education is another element in which states differ. After reviewing state coordination of

distance education in the United States, Hezel (1990) concluded that there are at least five sources of coordination and control:

(1) public broadcasting organizations (licensees),

(2) state departments of administration, telecommunications divisions

(3) higher education institutions,

(4) state coordinating or governing boards of higher education, or

(5) consortia with representatives from the above entities.

My study of distance education began simply as an effort to learn more about distance education in the U.S. and Canada. As the policy implications of what I found came into focus, I started to search, with little success, for instances of distance education being employed or envisioned by government as a deliberate instrument of public policy. To facilitate my analysis of the current distance education terrain, I have developed four descriptive, conceptual models by means of which I might categorize the distance education systems I have found and place them on a non-policy-oriented to policy-oriented continuum. I have labeled these models *Laissez-faire, Consortium, Coordinating Board,* and *Comprehensive.* The four models are based on differentiations over eight properties of distance education delivery systems:

1) purpose,

2) planning and coordination,

3) ownership and control of the technical capacity,

4) methods and media selection and use,

5) access/clientele served,

6) programming,

7) the role of institutions, and

8) cost efficiency and funding.

Chart 1 at the end of the paper summarizes the eight properties, with dimensions, and places each model at the appropriate point.

The data that enabled me to carry out this analysis (from which emerged the eight properties of distance education delivery systems) came, for the most part, from state higher education coordinating or governing boards, state-level telecommunications or educational technology agencies, and institutions or organizations with state-wide responsibility for delivering distance education (all in North America). Many respondents, such as the State Higher Education Executive Officers (SHEEO), provided written state plans (see *Works Cited*); many other state, agency, and institutional staff participated in telephone interviews.

Although other researchers have described distance education models, their versions have been either very general (Rossman, 1992, p. 14, 17; Rumble, 1986, p. 30), focused on purely administrative issues (Ellis, 1986, p. 28; Verduin, pp. 173-176) or focused on intra-institution issues, and thus are somewhat prescriptive in nature (Hudspeth, 1986, pp. 125-128). I have attempted something more in developing models based on *many* (vs. one or two) properties of distance education. In the following section I describe each of the four models; then, I conclude the paper with a look at the stake-holders and some future directions for distance education.

Laissez-faire Model

The Laissez-faire Model of distance education is characterized by individual initiative. No state-level, comprehensive plan for distance education exists. If distance education is offered at all, it is done so by one or more institutions or agencies acting independently of each other to accomplish one narrow purpose, usually to provide access and meet the education needs of a limited group of clients, typically professionals such as physicians or engineers needing continuing education. In the Laissez-faire Model, distance education is driven by individual talents and available technologies at the institution or within a region of the state. Access to instruction is limited, often consisting only of in-plant, hospital, or other closed circuit television sites.

There is no collaboration in planning, course development, identifying audiences to be served, or programs to offer; nor is there any sharing of equipment or facilities. Individual institutions or regional consortia own and control their own distance education hardware and software. Typically, selection of media and methods for delivering distance education depends on local resources and interests. A single medium and method, such as closed circuit, interactive television, may be all that is used.

The costs involved in providing distance education via the Laissez-faire Model are often unknown, since resources are spread across many providers. For the same reason, enrollment information is very difficult to compile. Typically, the state is not involved in directly funding Laissez-faire Model distance education nor may even

be aware of the cost. Payment for courses often are made by third parties (e.g., employers). There is little or no cost to students. The number of students served tends to be small.

Programming decisions in Laissez-faire Model distance education are made by departments within institutions or agencies and tend to favor professional development and in-service continuing education. Such courses are developed by institutions for their own clientele and, as such, are single use courses with little or no shelf life.

In short, institutions involved in Laissez-faire Model distance education tend to be self-contained, with little or no reliance on resources outside the institution. Sometimes the role of the institution is merely to extend to a narrowly-defined target audience access to existing, on-campus lectures.

The advantages of the Laissez-faire Model are seen at the institution level. They include the flexibility to respond to education and training needs at the regional or institution level, the ability of institutions to monitor instructional and technical quality directly, the ability of institutions to encourage and benefit from the individual talents and interests of their faculty and staff, and the ability of institutions to compete without restraints for students.

The disadvantages of the Laissez-faire Model are seen at the state level. They include unnecessary duplication of resources and efforts, related cost inefficiencies, failure by the state to use distance education to meet education and training needs systematically, and failure by the state to ensure a fair distribution of

educational resources to all its citizens who want and deserve access to education opportunities.

Consortium Model

Unlike the Laissez-faire Model, the Consortium Model is characterized by some coordination, often by a group of providers; but, little routine, long-range planning or distance education system development occurs. There is little or no client involvement in the Consortium Model, where the purpose is to provide education opportunities to a limited group of clients, primarily employed professionals seeking graduate or continuing education. In this model, the state provides funding for the technical pathway and may provide funding to develop broadcast capability at individual institutions; but there is no state-level control of the technical capacity. In addition to the resources provided by the state that institutions share (e.g., a telecommunications pathway), institutions often own and control separate reservoirs of equipment and capacity.

While one or more target populations, typically employed individuals wanting graduate courses, are addressed in the Consortium Model, little or no emphasis is given to the postsecondary education access needs of the general citizenry. Although the technical capacity in the Consortium Model tends to be up-to-date, access is limited because providers rely on a single medium and method, usually closed circuit, interactive television.

The state typically provides funding for the distance education infrastructure and campus-specific initiatives. The state attempts to rationalize costs at individual institutions. Since payment for courses

often is made by third parties, mostly employers, many courses are provided with little or no cost to students. The Consortium Model provides distance education to a limited number of students.

Consortium Model distance education programming emerges from institutions, which tend to provide courses related to professional development and in-service continuing education. These courses are developed by institutions for their own students and, as such, are single use courses with limited shelf life. Coordination of distance education in the Consortium Model consists mainly of a loosely-knit consortium of providers scheduling time on an electronic pathway. Virtually no institution uses the resources of other institutions, and each controls access to its own programming.

Like institutions in the Laissez-faire Model, those in the Consortium Model tend to be self-contained. In addition, except for the shared pathway and occasional use of national resources, such as the National Technological University, Consortium Model institutions usually do not rely on outside resources.

The advantages of the Consortium Model resemble those of the Laissez-faire Model. They also include the flexibility to respond to education and training needs at the consortial level, the ability of a consortium to monitor instructional and technical quality directly, and the ability of the consortium to encourage and benefit from the individual talents and interests of member institutions' faculty and staff.

The disadvantages of the Consortium Model also resemble those of the Laissez-faire Model. They include some duplication of

resources and efforts, possible cost inefficiencies, failure by the state to ensure that education and training needs are being addressed with distance education resources, and failure by the state to ensure a fair distribution of educational resources to all its citizens who want and deserve access to education opportunities.

Coordinating Board Model

State-level planning is routinely carried out in the Coordinating Board Model by a special board or committee with representatives from various providers and related agencies. This board, which typically meets two to four times a year, has as its purpose to make a broad range of education opportunities available to whoever might need them. 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.

While the Coordinating Board Model of distance education attempts to meet the needs of various student populations, including, typically, K-12, undergraduate and graduate higher education, and continuing and adult postsecondary education, the system has not been designed to increase access *per se* and remains more institution- than client-driven. The Coordinating Board Model employs a variety of methods and media, resulting in multiple access points, perhaps including open broadcasts of live or taped instruction--a benefit to students, most of whom are employed.

In coordinating the distance education offerings, the state attempts to avoid duplication and thereby contain costs. Course fees

are supported by both students and third party payers, such as employers. The number of students served is large, owing to fairly open access and a wide range of courses and some degrees available. Some courses are developed by the institution; some, by other providers. There is little shelf life from interactive television and computer courses; but other media, such as telecourses, can be used many times. Institutions are somewhat interdependent in their delivery of distance education in the Coordinating Board Model. They are expected to avoid unnecessary duplication and redundancy in the delivery of distance education; but when problems arise that they can't solve, the coordinating board steps in.

The advantages of the Coordinating Board Model include the possibility of a fair distribution of education resources to those in need of access to education opportunities, the possibility of a broad range of courses and degree programs, little duplication of resources and efforts, and the ability of the state to focus its education resources on target populations and/or workforce development goals.

The disadvantages of the Coordinating Board Model include possibly a cumbersome organization and management structure (if the majority of members of the coordinating board are institutional representatives), a more institution- than client-driven system, and if several institutions have broadcast capability, some duplication of resources and efforts.

Comprehensive Model

The Comprehensive Model of distance education, when compared with other models, has a more ambitious mission--to expand education

opportunities to a broad range of student populations in a cost-effective manner. Of all the models, only the Comprehensive Model represents an approach where distance education is likely to be an instrument of policy. Often, its purpose is to increase participation in education. State-level planning, coordination, integration, and delivery in the Comprehensive 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.

Since the system is designed to provide access to and increase participation in education, the system is client-driven. Large numbers of undergraduates seeking two- and four-year degrees are served, as well as graduate and professional students. This range of service is made possible through the use of multiple approaches to delivering instruction, including print as well as electronic methods and media.

With regard to costs, the state encourages variable pricing and the use of such available resources as public or cable television, private institutions or agencies, and pre-produced instructional courseware. Although there may be some course reimbursement by employers, most course fees are borne by students. Since a broad range of training programs, courses, and degrees at all levels are provided in the Comprehensive Model of distance education, the potential audience is large, and the system is student-centered. The

designated distance education institution or agency develops, buys, and distributes courseware. Material from outside sources is used where possible and effective. Multiple methods and media allow for significant repeat use and longer shelf life for courses than in the other models.

The Comprehensive Model represents a distance education system that is collaborative. The designated distance education institution or agency takes advantage of resources from other producers and institutions. Multiple audiences are served in a planned, coordinated manner.

The advantages of the Comprehensive Model are seen at the state level. They include the ability of the state to set and carry out public policy goals with regard to educational access, the ability to respond fairly and appropriately to many different groups of citizens seeking access to continuing education opportunities, a broad range of courses and degree programs made possible, cost efficiency from reduced duplication of resources and efforts, and program offerings that are driven by students' needs and interests.

The disadvantages of the Comprehensive Model include a limited ability to respond quickly to local needs, institutions' doubts about program quality that may affect transfer of credit, and the possible negative impact of educational or academic decisions being made by non-educators.

Stakeholders in Distance Education

Most educators, argues Verduin (1991), and conventional wisdom suggests he is right, "would perhaps aspire toward a more student-

centered" model of distance education, while those in government "would possibly dictate a more institution-centered approach" (p. 171). Ironically, the findings of this study suggest the reverse: pleas for better service to students is evident only in the plans and actions of government.

In 1970, for example, the provincial government in Alberta created Athabasca University "to improve educational opportunities in general." Government later mandated that students be allowed "to enter and withdraw from the university at any time and [established] a policy of self-pacing and self-directed study" (Rothe, 1986, p. 9). Similarly, in British Columbia it was the ministry of education and the legislature that established the Open Learning Institute (and later combined it with Knowledge Net to form the Open Learning Agency), the purpose of which was to

> increase the availability of educational and training programmes . . . to meet the full spectrum of the educational needs of the adult population and to do so in a manner that would allow students to study part-time in their own homes (Rothe, p. 19).

Institutions (the University of British Columbia, Simon Fraser University, and the University of Victoria) were persuaded to collaborate with the Open Learning Agency through a combination of financial enducements and government pressures (Bates, 1993).

In Indiana, the Commission for Higher Education and the Indiana General Assembly have separately attempted (unsuccessfully) to force the institution-dominated Indiana Higher Education Telecommunications System (IHETS) to be more responsive to the educational access needs of undergraduate and non-traditional students. In 1987 the

Indiana General Assembly enacted legislation that directed IHETS to establish and maintain a library of telecourses in lower division liberal arts and science areas. To date, IHETS' only response has been to commission a $20,000 telephone survey study (Center for Survey Research, Indiana University, 1988) to ascertain the level of interest on the part of ordinary Indiana citizens in having access to the open broadcast of credit-bearing, undergraduate courses. In 1988 the IHETS staff presented the findings (which showed an extremely high level of interest on the part of citizens) to the governing board of IHETS, which is made up of the presidents of the seven public institutions in Indiana and a representative of the independent colleges. After the board reviewed the results, the draft press release regarding the findings was set aside, and no further mention was made of the study. Later (in 1991), in explaining its failure to comply with the 1987 legislation, IHETS complained that no funding was available for such a program.[2]

Data and experience suggest, then, that institutions clamor *not* for the opportunity to meet the needs of underserved populations, but for institutional autonomy and ever-increasing levels of unconditional funding. Gilley (1991) notes that a new breed of younger and more aggressive governors have been dismayed to find that universities are reluctant or even unwilling to define and tackle "twenty-first century issues and problems," but instead simply continue to submit routine "requests for money for generic issues and programs" (pp. 103-104).

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[2] Between 1987 and 1991 IHETS did not request funding to establish the telecourse library.

It is somewhat surprising, given the new climate, to learn that university presidents continue to complain about a "'lack of clear direction'" from the state (p. 104).

Future Directions

Ironically, in addition to their apparent indifference to helping the state prepare for the future, universities are ill-equipped to face the future themselves: Rossman (1992) argues that "the 21st Century will be full of organizational surprises." Traditional, hierarchically-organized universities, for example, "are not going to work very well." Citing an article by Killman (1989), Rossman says that "what we see is the emergence of 'the network as the twenty-first century form of institution" (pp. 13-14).

Fortunately, developing the capacity to envision distance education as an instrument of public policy probably does not depend on restructuring or reforming higher education institutions: the responsibility for setting public policy rests with government. And, there is some evidence that government has begun to adjust its view of distance education. Of the various concerns expressed in the interviews and planning documents I examined during this study, the following were most frequently mentioned:

(1) technology is advancing so rapidly that it threatens to outstrip the capacity of existing structures (social, organizational, management) to manage it;[3]

(2) institutions will develop their own distance education systems at the expense of state-wide compatibility, as well as duplicating resources and efforts;

[3] This often-repeated comment reveals a growing awareness of the problems associated with a technology-driven distance education.

(3) the current policy regarding access to distance education resources and pathways, *first come-first served*, is one that undermines the state's efforts to meet its goals regarding expanding education opportunities to underserved populations;[4]

(4) while technical personnel have provided leadership in distance education in the past, academic personnel need to play an increasingly greater role in programming decisions and planning for distance education.[5]

Other encouraging signs of change can be found, even at institutions. Farrell and Haughey (1986) report that the development of open learning systems in Canada has resulted in institutions entering into "consortia arrangements [for] curriculum planning and materials development." They predict that the need for "collaboration at the planning stage of course and programme development will intensify in the future." Government has made it clear that unwilling institutions "will find themselves on the sidelines of any substantial involvement in the open learning systems which emerge" (p. 33).

Various proposals have been made for uniting technology and education in ever more sophisticated ways to better enable the U.S. and Canada to meet the demands of the coming century. Rossman (1992) and Killman (1989) propose a *hub/network* system which connects people electronically. At the hub

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[4] Some planning documents recommend that priorities be set, either by the state or, at least, with state involvement.

[5] Bates (1991) agrees that educators, rather than technologists should be in the driver's seat so that "learners are not run over by the technology" (p. 10).

> 'the traditional division of labor will be replaced by a contemporary division of knowledge organized according to new categories' [Killman, 1989]. The hub will be responsible for organizing resources, setting goals, establishing priorities and programs, and keeping the network together (Rossman, p. 15).

Gilley (1991) develops a similar model into what he calls the *distributed university* (p. 171):

> 'In this model, each institute, like nodes on a computer network, is linked by telecommunications systems that can access the facilities of all the institutes on the network. This massive undertaking is an attempt to provide education of equal quality to all areas of the region, and develop interdisciplinary research and programs aimed at solving the region's and nation's--most timely problems' (Mayer).

A distributed university may have the following features: learning centers near students' homes; live, face-to-face instruction in fields such as engineering taught by local industry specialists; live, interactive instruction televised from remote sites; access to library resources via technology (enabling students both to search library holdings and order materials by computer); and, the ability for students to communicate with and submit work to professors via e-mail (p. 171). Gilley provides a strong rationale for distributed universities:

> Because of work hours, traffic congestion, and other logistic factors characteristic of urban villages,[6] however, main university campuses are becoming less convenient, therefore less accessible, to the learner. Yet, second-class operations such as branch campuses

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[6] Urban villages are "characterized by substantial semi-independent yet distinct population concentrations, each including office and research space, shopping and recreational facilities, and residential areas frequently located within close proximity (approximately ten miles)" (p. 6); urban villages are "multiple concentrations of office, shopping, residential, and recreational facilities" (p. 173).

> or extension centers are increasingly unacceptable to the sophisticated new American knowledge worker. Thus, the idea of a distributed university is gaining popularity in many fast-growing areas around the country (p. 173).

Although the distributed university is uniquely suited to the needs of the urban village, it can meet the needs of other settings as well, such as "areas with sparse and widely-distributed populations" or among populations "with a disinclination toward higher education," a population for whom it is doubly important to deliver high quality, accessible education close to home. For, "realistically," Gilley argues, "only highly motivated learners can be expected to travel great distances for educational services."

George Mason University, according to Delaney and Norris (1991), is embarking on a path toward becoming a distributed university. George Mason has developed a plan to create a network of institutes throughout northern Virginia. The University intends to bypass the problems associated with branch campuses by "utilizing alternate faculty appointment contracts, telecommunications and other means of instructional delivery, supported by creative funding arrangements with local governments and industry" (p. 168).

Rossman (1992) suggests an electronic and postsecondary version of "school choice": when the appropriate educational technology linkages and resources are in place, governments could issue "electronic education vouchers" that would allow students to go electronically to any postsecondary institution they wish. Such vouchers, he argues, could serve not only traditional students, but also could become an instrument of policy for welfare reform and,

even, foreign policy: electronic education vouchers could replace some traditional kinds of foreign aid, thus enabling the "world's poor to solve their own problems" (p. 139).

Knerr argues that the U.S. may well be "at a major point of transition" and that the conceptual models of the past are not "adequate to shape appropriately the public policy considerations necessary for our future." If this is, indeed, a defining moment for higher education and educational technology in North America, governments and institutions jointly need to reconceptualize their view of distance education and place it within the framework of public policy.

CHART 1

Properties and Dimensions
of Distance Education

Not Policy Oriented ← → Policy Oriented

	SINGLE/NARROW 1 2 3	4 5	6 7 8	MULTIPLE/BROAD 9 10
PURPOSE	Distance education activities are provided to accomplish one narrow purpose, usually to provide continuing education for one prof. group.	The purpose is to provide education opportunities to a limited group of citizens, primarily employed profession-seeking grad. educ.	The purpose is to make selected education opportunities available to targeted groups of students, often including K-12 students and grad & prof students.	The purpose is to expand education opportunities to a broad range of student populations; a wide variety of courses and certificate and degree programs are offered.
	LOCAL 1 2 3	4 5	6 7 8	STATE-LEVEL 9 10
PLANNING AND COORDINATION	No state-level comprehensive plan of action exists. Institutions initiate distance education independent of one another.	There is some coordination of programming, often by a user consortium, but with little routine, long-range planning or system devel. Little client involvement.	There is routine state-level planning & coordination by a special board or committee w/reps. from various providers; usually meets 2-4 times a year.	State-level planning, coordination, integration, and delivery is assigned to one institution or agency--perhaps w/degree-granting auth. Institutions may also participate in system.
	DISPERSED 1 2 3	4 5	6 7 8	CONCENTRATED 9 10
OWNERSHIP, CONTROL OF THE TECHNICAL CAPACITY	Individual institutions own and control their own distance education hardware & software.	State provides some technical capacity but doesn't directly control it; institutions also own & control their own equip.	State owns and controls technical capacity to some extent through a coordinat- committee. Individual institutions may may also own their own equipment.	State facilitates a shared ownership and control of technology. Individual institutions do not develop a separate technical capacity to deliver distance education.
	LAISSEZ-FAIRE	CONSORTIUM	COORDINATING BOARD	COMPREHENSIVE

	SINGLE									MULTIPLE
	1	2	3	4	5	6	7	8	9	10
METHODS & MEDIA SELECTION & USE	Selection of media and methods depends on local resources and interests; typically single medium and method used.			Attempt is made to acquire and use up-to-date methods and media; may rely on single medium and method.		A variety of methods and media are planned for and used.			Distance education is provided via a full range of methods and media, including electronic and print. The distribution system is technologically up-to-date.	

	NARROW									BROAD
	1	2	3	4	5	6	7	8	9	10
ACCESS										
a. Intent	The goal is to provide access and meet the education needs of a limited group of students. The system is driven by individual talents & avail. technologies.			One or more target populations are identified and served, but little emphasis is give to the post-secondary education access needs of the general citizenry.		Various student populations are served, including typically K-12, higher educ., & continuing educ.; but the system is not designed to increase access per se.			The system is designed to provide access to education to anyone who needs it, and increased participation is a system goal. The system is client-driven.	
b. Clientele served	Employed engineers/ other professionals.			Mostly employed individuals wanting graduate courses.		Mix of undergrad. & graduate students; mostly employed.			Large number of undergrads seeking two- or four-year degree; some graduate, degree-seeking professionals.	
c. Results	Limited access points (in-plant sites, CCTV, etc.).			Somewhat limited access points.		Variety of access points, including some in-home access.			Instruction wide open, available via multiple media and methods.	

PROGRAMMING	LIMITED 1 2 3	4 5	6 7 8	COMPREHENSIVE 9 10
a. Nature	Courses selected by the departments or other units in an institution; emphasis is placed on professional development in-service.	Courses, limited degrees offered to meet prof. develop. & in-service needs of a special population. The system is institution-centered.	All levels of students are served w/ a broad range of courses & a limited number of degrees. The system is primarily inst.-centered.	The distance education system provides a broad range of training programs, courses, and degrees at all levels. The system is client-centered.
b. Source/ Ownership	Course(s) distributed or developed by institution for its own students. Single use courses -- low shelf life.	Most courses developed and offered by each institution for its own students. Mostly single use courses -- little or no shelf life.	Some courses developed by the institution; some, by other providers. Little shelf life from interactive TV courses, but longer for other media and methods.	Existing courseware used where possible and effective; many sources used. Multiple methods and media allow for significant repeat uses and longer shelf life for courses.

INSTITUTIONS	INDIVIDUAL 1 2 3	4 5	6 7 8	COLLABORATIVE 9 10
a. Role	Extend access to campus lectures to a narrowly-defined target audience; one-time use.	Institution develops special courses for a narrowly-defined audience; mostly one-time use.	Institution develops and distributes (rarely buys) courses for select groups of students.	Institution develops, buys, and distributes a broad array of courses for students at various levels.
b. Individual vs. Cooperative Effort	Individual inst. is self-contained; does not use resources from other providers; controls access to its own programming.	A loose provider consortium uses pathway cooperatively; each institution is self-contained; doesn't use other's resources & controls access to its programming.	Cooperation in delivery of programming occurs to avoid unnecessary duplication and redundancy; mechanism for cooperation is coordinating committee of providers.	System is collaborative. Each institution/agency takes advantage of other producers' and institutions' resources. Multiple audiences are served in a collaborative manner.

	NOT COST EFFICIENT			COST-EFFICIENT
	1 2 3	4 5 6 7 8	9 10	
COST EFFICIENCY	Many institutions or agencies have the same distance education equipment and personnel; inefficient.	Although institutions may share the the same pathways, there is still some duplication of resources.	Better state-level coordination results in greater cost efficiency and less duplication of distance education resources.	State-level planning, coordination, and delivery, use of various methods and media, and service to large numbers of students results in low per-student cost.

	IRRELEVANT			RELEVANT
	1 2 3	4 5 6 7 8	9 10	
STATE POSITION ON COST	State is not aware of nor concerned about the cost.	State attempts to rationalize prices charged by individual institutions.	State attempts to coordinate offerings to avoid duplication and contain costs.	State encourages variable pricing and use of available resources (e.g,, public or cable television, existing agencies or institutions) to achieve a lower per unit cost.

	THIRD PARTY			STUDENT
	1 2 3	4 5 6 7 8	9 10	
SOURCE OF PAYMENT	Typically, fees paid by third party; low/ no cost to students.	Large proportion of offerings paid for by third party.	Some costs borne by students; some, by third party.	Most costs borne by students.

	NARROW			BROAD
	1 2 3	4 5 6 7 8	9 10	
MARKET	Small, typically one professional group.	Small, a limited number of graduate and professional students	Larger, including baccalaureate instruction.	Large market addressed and served--all levels and many disciplines.

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