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The Challenges to Distance Education in an Academic Social Science Discipline: The Case of Political Science

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Abstract

This article reports the results from a national survey directed to the department chairs of political science to assess the current and future state of distance learning in that discipline. The insights of this research are relevant to all social science fields and offer important insights to other academic disciplines as well. Key findings of the study include the low utilization of distance learning courses, a low degree of importance currently attributed to distance learning and modest expectations of future growth, ambivalent acceptance of a future role for distance learning, the common use of Internet-related technologies, low levels of faculty knowledge and interest about distance learning, limited institutional support, and serious doubts about the appropriateness and quality of instruction at a distance. We propose a model of the size and scope of distance learning as a function of three factors: the capacity of distance learning technologies, market demand, and faculty and university interest in distance learning. The article concludes with suggestions of critical areas for future research in this dynamic, fluid post-secondary environment.

Introduction

On March 26, 1999, at 6:29 a.m., CNN ran an advertisement for UCLA's distance learning program. It was the first full-blown, national commercial inviting students from around the world to ignore their local, physically accessible college or university and to opt instead for accredited courses taken at a distance. This was an important symbolic event because it promoted the "third way" of delivering higher education with a seriousness that has not been seen before in the United States. The first way is to have students travel to a college or university and live in residence, no matter whether the distance they traverse is near or from the other side of the world. Generally such students are full-time. The second way is to provide classes for students who commute from local or not-so-local areas. Such students are more likely to be part-time. The third way is to provide education at a distance, which was pioneered in correspondence courses and later in public television classes (McIsaac & Gunawardena, 1996).

The third way has long been characterized by a tiny share of the student audience, thought to have less serious students, and subject to criticisms about inferior quality (Jaffee, 1997, Noble, online; see Rahm, Reed, & Rydell, 1999 for a good review of the challenges). In reviewing the literature on distance learning, one quickly discovers both hyperbole and deep skepticism (Schmidt, 1999). Advances in technologies, new economic forces, and a changing university environment certainly require a reexamination of many of the old assumptions about distance learning (Mingus, 1999). Joseph Hardin and John Ziebarth, at the National Center for Supercomputing Applications, publishing in *The Future of Networking Technologies for Learning,* suggest that "…very soon every teacher and student will need access to the information represented on the Web in order to be competitive in their work and in their lives" (Hardin & Ziebarth). Further, some experts (for example, the Pew Higher Education Roundtable) suggest that 30 to 50% of all post-secondary learning will take place through some form of distance learning.

Yet others suggest—including substantial numbers of faculty—that this is a passing fad suitable for only a narrow niche of courses, and that traditional settings will remain

the overwhelming method of education (Clark, 1993). The most optimistic predictions of advocates who watched the rapid transfiguration of the communication world by the Internet are likely excessive in both quantity and speed of any market transformation. However, distance learning seems unlikely to be a mere instructional fad. Examples of the seriousness of the phenomenon are not difficult to find.

One of the most impressive manifestations of distance learning is the establishment of the new virtual universities. By far the most successful major distance education institution is the British Open University, which has granted 227,000 degrees (Blumenstyk, 1999) since 1971and has an excellent reputation despite Great Britain's conservative educational tradition. American experiences are still mixed. Although small, Jones International University has gained accreditation (Olsen, 1999a). Some of the virtual universities are up and running moderately well, such as the Southern Regional Electronic Campus. For most it is too early to tell, such as the Western Governor's University (WGU, the Colorado Community College Virtual University, Penn State's World Campus, and the United States Open University. For all the news and hyperbole of WGU and California Virtual University, they have underachieved initial expectations (Newcombe, 1999) and the California Virtual University had its plug pulled in 1999. Yet this is not stopping new, well-funded entrants such as Kentucky Commonwealth Virtual University (Young, 1999) and Michigan Virtual University. These huge education syndicates indicate a willingness to devote the considerable resources needed to provide the substantial retooling in technology, systems, and personnel that is necessary for large-scale success.

In the summer of 1999 a new virtual university consortium named Cardean University (www.unext.com) was launched partly with financing from former junk bond king Michael Milken. It will offer complete graduate programs. What's important about this venture are the five prestigious universities who are part of the venture –the University of Chicago, Columbia University, Carnegie Mellon University, Stanford University, and the London School of Economics and Political Science. This project looks more promising than some given the high- octane nature of the participating institutions.

Perhaps as important is the adoption of distance learning technologies by prestigious universities (Newcombe, 1999). Stanford offers a full engineering degree and Duke offers a full MBA on-line (which integrates occasional live sessions as do many quality distance programs). Examples of fully on-line classes now exist at Oxford and Harvard. The question of broad-scale penetration of distance learning in higher education is less an issue now. Rather, the question now focuses on how much penetration, in what specific areas such as political science, and how it can be done most effectively.

Commercial examples, while different in nature, give evidence of the liabilities of adopting a wait-and-see attitude toward new technologies. Faculty have seen the college textbook market dramatically transformed by newcomers such as Amazon.com, VarsityBooks.com and, more recently, Bigwords.com. Traditional textbook wholesalers such as textbooks.com (Barnes and Noble), efollett.com, and ecampus.com (Wallace) have scrambled to get on-line (Kiernan, 1999). The effect of electronic commerce has been devastating for both university-owned and locally owned stores. The local university bookseller in Ames, Iowa, reported a 30% drop in sales as the result of a full-page ad that appeared in many targeted college student newspapers and through the use of handbills on campus. University- owned and locally-owned bookstores are beginning to combat this trend in different ways. One strategy is a buying consortium with a centralized on-line access point (Carr, 1999). Another strategy is for the

university to turn book sales entirely over to an on-line provider such as VarsityBooks.com. The online provider then pays the institution a percentage of the sales and the bookstore ceases to sell textbooks (Olsen, 1999b). Although this commercial analogy should be applied to complex, degree-granting institutions of higher education with extreme caution, it is interesting to ponder whether there could be a similar critical-mass shift in higher education distance education as well. One important point of difference currently is that quality distance education programs are not less expensive in tuition than conventional programs, and frequently are more costly (Blumenstyk, 1999). This situation may shift in the next few years with technology advancements and increasing faculty experience.

Research Issues in Distance Learning: An Overview of This Article

Many issues have arisen regarding the proper role and effect of distance learning: the globalization of the competition for students among institutions of higher education, the pressures for cost-cutting and cost effectiveness in the new economy, the challenge to traditional institutions of higher education posed by virtual universities and by the growth of for-profit universities, concerns among faculty about job security and the implications for promotion and tenure as well as reward structures, concerns about the content quality of distance learning, and a series of technical issues such as intellectual copyrights, accreditation, transferability of credits across institutions, and the integrity of undergraduate and graduate programs of study. Some of these issues are being addressed at a general level in journals such as *The American Journal of Distance Education, Distance Education, ED Journal*, the *Journal of Classroom Techn*ology, *Kairos*, and *Training and Development*. Yet we would argue that these big and interesting questions can be understood best by examining where disciplines such as political science presently stand. This study offers an empirical assessment of the current scope of, as well as several of the major contributing factors to, the role played by distance learning in higher education generally and more specifically in political science.

To help make sense of the contemporary changes occurring in distance learning, we begin by briefly proposing a theoretical construct for the factors affecting the growth of distance learning. This exploratory study provides an empirical baseline for some—but not all—of the array of factors relevant to a more exhaustive understanding of distance learning.

First, what is the scope of distance learning in political science curricula? The answers to several more specific questions of the scope of distance learning are addressed in our results. How frequently are distance learning classes offered? What percentage of credit hours are attributable to distance learning classes? What is the level at which distance learning is used? What are the perceptions of department chairs (thus indirectly of departments) on the importance and/or faddishness of distance learning?

Second, we address the types of technologies that have been implemented to deliver distance learning classes in political science. Are generational differences among faculty cohorts a major consideration in what methods have been and are being adopted? Do the faculty members participating in distance learning courses make full use of newly available Internet-based technologies? How many relevant distance learning technologies are used on average by actively engaged instructional faculty? What does the future hold in store for faculty abilities to adjust to rapidly evolving new technologies?

Third, what is the profile of political science faculty knowledge about, their interest in, and the incentives for providing distance learning? How much do faculty understand

the new technologies, what interest do they have in learning more about it, and how much support is available for the opportunity to experiment with the new technologies? What are the characteristics of the faculty members who are engaged in distance learning? What is the nature of faculty perceptions about the quality of distance learning? What is the appropriateness of distance learning to the political science arena? How do such methods compare to traditional methods? Finally, in the estimation of faculty, what is the overall effect of distance learning likely to be on students, departments, universities, and ultimately, themselves?

After reporting and interpreting the findings, this article suggests critical areas for future research in this dynamic environment.

Major Factors Affecting the Growth of Distance Learning

The size and scope of distance learning is affected by three major domains (for an excellent overview of these and other issues in the higher education context, see Boaz et al., 1999). First, it is affected by the *capacity of the distance learning technologies*. If the capacity is relatively weak, the size and scope will be more limited. The sheer number of distance learning options is important. A greater number of options means that distance learning provides a greater array of opportunities and also allows for a greater degree of synergy among those options. For example, Web-based classes normally are enhanced significantly by using email for individual student- instructor conferences and regular mail for textbooks and proprietary materials that cannot be scanned and sent electronically. Another important factor is the technical capacity of each of the options. Clearly the rapid expansion of Internet-related technologies will have a considerable effect on the long-term growth capacity of distance learning. A related factor is the cost of different technologies. Falling or increasing costs dramatically affect the willingness of individuals and institutions to experiment with and to institutionalize distance learning options.

A second important domain is *market demand*. How eager are students for distance learning options? Which students, and how many students, are interested in distance learning exclusively, and which students are interested in distance learning for selective purposes? Another important aspect is the competition among the universities themselves. If universities fail to provide many options, and those options are limited in scope and quality, then distance learning will remain a small part of the market. However, even if only a few universities provide strong national and regional options, they can stimulate great competition because of their ability to penetrate distant markets at little or no additional cost.

A third domain is the *level of faculty/department/university interest* (Brigham, 1992). The level of technical support will affect the scope of distance learning. So, too, will the incentives used to encourage departments and individual faculty members. An indication of the attitudinal barriers and institutional constraints confronting successful implementation of distance learning is provided by the results of a 1998 survey of professors by the American Association for History and Computing (on-line, 1998, Trinkle, 1999). The evaluation by 65% of the respondents was that their institution's technology policies were misguided or insufficient. Of course, the knowledge of faculty about distance learning options also is critical. We believe that the generational age of faculty members also will have an effect, since older faculty members typically are less apt to adopt new technologies and to change their teaching styles radically, as distance learning often requires. Finally, the perceptions of faculty members (and their institutional units) about the quality of distance learning are crucial as well. For

example, if large or important groups of faculty feel that distance learning is fundamentally inferior and if they thereby largely ignore such options altogether, then distance learning is likely to have a slow, tough path even if technical capacity (such as bandwidth) grows dramatically. See Figure 1 for a graphic representation of these relations.

Figure 1: Factors Determining the Size and Scope of Distance Learning

Capacity of Distance Learning Technologies • Number of options • Technical capacity of options • Cost	**X**	**Market Demand** • Competition among traditional universities • Competition among for-profit and non-traditional schools • Eagerness of students	**X**	**Faculty-Univ. Interest in Distance Learning** • Technical support for distance learning • Financial support • Knowledge of faculty about distance learning • Age of faculty • Perceptions of quality of distance learning	**=**	**Size & Scope of Distance Learning** • Number of courses using distance learning • Percentage of credit hours • Number of faculty using distance learning techniques

Research Methods and Results

The Survey Instrument

In the fall of 1998 a national survey instrument with 21 questions was designed and field-tested to explore the extent and perceptions of distance learning in political science departments in colleges and universities throughout the United States. Following appropriate adjustments, the survey was mailed to 812 political science departments representing both undergraduate and graduate education programs in the United States. A total of 296 useable questionnaires were returned, for an overall response rate of 36%; the functional response rate for certain questions was less because of their nonapplicability to portions of the respondents. The questionnaires were sent to chairs of departments since it was felt that they would have the best overview from which to answer the questions posed. We speculate that responders would be slightly more active in distance learning on average than nonresponders. Thus, it seems likely that to the degree that there is any respondent distortion in our findings, it would exaggerate the results, leading us to report in this study that there was slightly more activity in distance learning than there is in fact.

Respondent Characteristics

Although only three-quarters of the respondents completed the requested

demographic data, the characteristics of the respondents seem to reflect the breadth of the field of political science, with the bulk of the respondents coming from institutions with enrollments under 10,000 and from departments having 10 or fewer faculty members. See Table 1 for a breakdown of respondents by size of student body and political science faculty.

Table 1
Characteristics of Universities and Colleges Surveyed

University		**Department**	
Student Body Size	%	**Faculty Size**	**%**
Under 5,000	44.9	2-6	43.3
5,000-10,000	20.7	7-10	20.7
10,000-15,000	12.9	11-15	14.2
15,000-20,000	10.7	16-25	16.9
Over 20,000	10.7	over 25	4.7

Findings

Size and Scope of Distance Learning

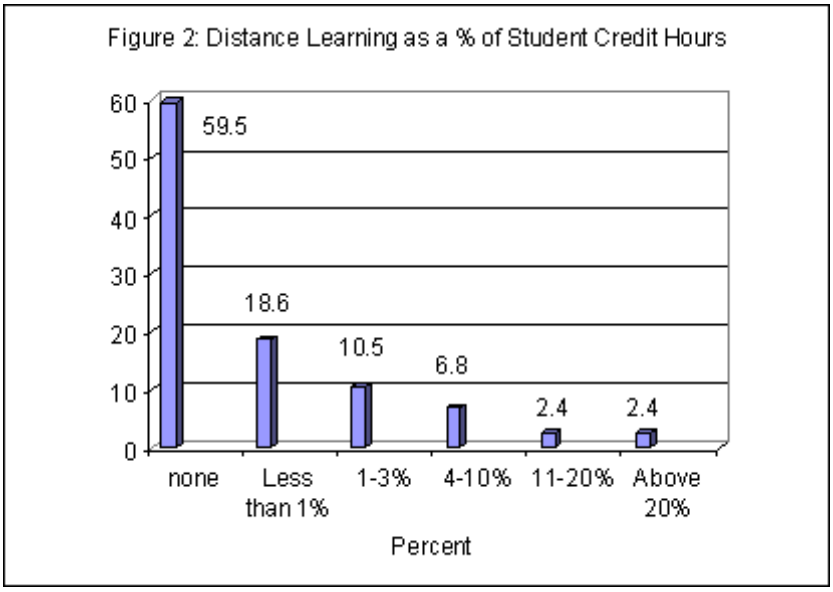
Perhaps the single most important set of data was captured in Table 2, which summarizes responses to the question: "Does your department use distance learning technology for any of its courses?" Note that the broad wording allowed some respondents to include classes that were primarily face-to-face but that use supporting distance learning technologies. (Note 1) Nonetheless, a substantial 57.5% of the responding departments do *not* use distance learning technology for *any* of their courses. (Note 2) One-third reported using some distance learning in one to three classes. Approximately 10% reported the use of distance learning in 4 or more classes.

Table 2
Use of Distance Learning in Political Science

Degree of Usage	**%**
None	57.5
1-3 classes	32.0
4-8 classes	7.1
More than 10 classes	3.4

A related way of examining the scope of distance learning is to assess it as a proportion of the department's full credit-hour usage. When responding to the question "Approximately what percentage of your students' credit hours are distance learning this semester?" fewer than 5% of the reporting departments indicated that 10% or more of the department's total credit hours were generated by distance learning. Only 22.1% of departments reported the level of distance learning usage at 1% or more of student credit

hours. See Figure 2 for the breakdown of distance learning usage by credit hours. Clearly the number of institutions that are completely uninvolved is very high among respondents, and it is likely that the nonresponding members of the surveyed population have an even lower proportion of distance learning utilization. Further, of those institutions that do utilize distance learning technologies, the number that make extensive use of them is very small.



Although the usage of distance learning may be relatively limited, in what part of the political science curriculum is that use most common—in undergraduate, graduate, or training courses? Respondents could choose multiple answers; thus the sum of percentages across all response categories may be greater than 100%. In the programs reporting the use of distance learning technology the bulk of such utilization is concentrated in undergraduate classes. At this level, utilization is split fairly evenly between lower- and upper-division undergraduate courses (in 58.4% and 66.4% of responding departments, respectively). Departments engaged in distance learning identified graduate classes 32.8% of time, and training programs were selected by only 6.4% of the responding departments.

Several questions surveyed the degree to which the department chairs thought that distance learning was an important component of their department's curricular offerings. These findings reflect not only the relatively low utilization rates, but also perceptions about a low level of importance attributed to distance learning at this time. Three-quarters of the respondents *strongly* disagreed that distance learning was a major component of their curricula, and only 8.8% moderately or strong agreed that it was. See Table 3 for results.(Note 3)

Table 3
Perceptions About Distance Learning as a Major Curriculum Component

Degree of Agreement	Responses to "Major Componentin Curriculum"	%

Strongly Disagree	1	74.4
	2	13.3
	3	3.5
	4	2.8
Strongly Agree	5	6.0

All of the questions thus far have evaluated the current scope and perceptions about the importance of distance learning in departments of political science. What about future use and importance? When asked if "distance learning will be used to some extent in every course in our department," the respondents were still relatively pessimistic. This statement was softened by the terminology "to some extent," which includes the Web-based technologies that are likely to become substantially more pervasive, but also was made more stringent by the term "every." The department chairs' perceptions of future growth of the use of distance learning were surprisingly modest. The proportion strongly disagreeing with the statement of future use of distance learning was 62.7%, while only 13.7% agreed strongly or moderately. Table 4 reports these findings.

Table 4
Future Extent of Distance Learning in Political Science Courses

Degree of Agreement	**Responses to "Future Extent"**	**%**
Strongly Disagree	1	62.7
	2	15.1
	3	8.5
	4	4.9
Strongly Agree	5	8.8

Respondents also were asked if they thought "distance learning is largely a fad." This question was meant to elicit information about the future of distance learning again, only using different language. The responses, however, did not mirror the results for the preceding question. Only 21% of responding departments strongly or moderately agreed that distance learning was largely a fad. On the other hand, 44.3% strongly or moderately disagreed with the statement. In other words, although political science department chairs reported relatively low use of distance learning currently and were not much more optimistic about increased usage in their own departments in the future, they did not feel, as a group, that distance learning was transitory in the field. This would seem to indicate a perception (or perhaps resignation) that some departments or entities in the field would become major providers, but that most departments would be modest users of distance learning. See Table 5 for a summary of the results.

Table 5

Perceptions of Distance Learning Faddishness

Degree of Agreement	Responses to "Largely a Fad"	%
Strongly Disagree	1	20.0
	2	24.3
	3	34.6
	4	14.6
Strongly Agree	5	6.4

Type of Distance Learning Technologies Used

Another important question had to do with the type of distance learning technology that actually was used by political science faculty members. Ten choices were provided in a menu, with an eleventh option of "other." Respondents were asked to circle all technologies that applied in their respective departments. The percentages reported here are for distance learning users only; however, it must be remembered that distance learning users represent only 42.2% of the total population of respondents for this question. By far the most popular methods were Internet/World Wide Web delivery (58.4%) and e- mail interaction with remote students (54.4%). Other common methods employed were: multiperson computer interactions (32.8%); fiber optic, full- motion video, and two-way audio (32.0%); physically having the instructor at an off-campus venue (29.6%); correspondence by mail (25.6%); and telephone conferences (22.4%). Less common were public television class delivery, satellite delivery, and other methods listed on the questionnaire or filled in voluntarily by the respondents. User respondents indicated the use of three distance learning technologies on average. See Table 6 for a comparison of the usage rates of the different methods. It is interesting to note that the most commonly used methods also are the newest; that is, they are all Internet- related technologies.

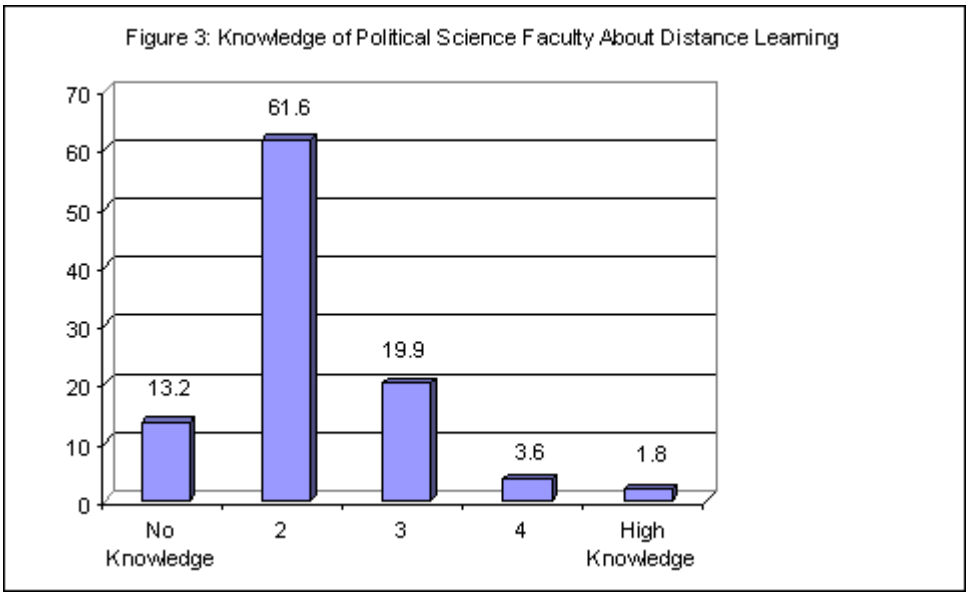
Table 6
Types of Distance Learning Technologies Used
(Multiple Responses Allowed)

Type of Distance Learning Technology	% of Distance Learning Users
Internet/World Wide Web delivery	58.4
E-mail interactions with remote students	54.4
Multiperson computer interactions (E.g., chat rooms, simulations, etc.)	32.8
Fiber optic full motion video and two-way audio	32.0

By physically having instructor at off-campus venue	29.6
Correspondence by mail	25.6
Telephone conference	22.4
Public Television class delivery	15.2
Satellite up/downlink	12.0
Satellite downlink only	6.4
Other	11.2

Faculty-Department-University Interest in Distance Learning

If faculty members are not knowledgeable about distance learning alternatives, they will not be able to use them. Respondents were asked, "How much knowledge about distance learning does the average member of your faculty have?" Seventy-five percent of the respondents said that the average faculty member has no or very little knowledge of distance learning on a 5-point Likert scale. Only 5% were quite knowledgeable. Another 20% were moderately knowledgeable about some aspects of distance learning. See Figure 3 for the results.



When asked about the level of interest in using distance learning techniques in the future, the response rates were similar to the question about levels of knowledge and the overall mean was identical. The specific question was, "How much interest in using distance learning techniques in the near future does the average faculty member in your department have?" A surprisingly large majority (68.1%) reported a definite lack of interest (a 4 or 5 on a 5-point scale) among faculty and active interest (a 1 or 2) was expressed by only 12.0%.

Only when a longer time frame is assumed are the respondents inclined to think that usage rates will increase substantially. In responding to the statement, "distance learning is a growing interest in our department," only 22.0% are inclined to agree either

strongly or moderately. See Table 7 for a summary of the results from this question. An even more dramatic indication of the long-term pressure is the comparison of those who strongly agree that there will be a short-term upswing in interest with those who think there will be a long-term increase. While only 2.1% see a strong surge in short-term interest, 8.4% see a long-term interest. This four-fold increase may be due partially to familiarity, but it also likely is due to the integration of younger faculty members who are significantly more apt to be familiar and comfortable with distance learning. It also may be due to perceptions of technology improvements, access, and cost reductions.

Table 7
Growing Interest (longer term)

Degree of Agreement	Responses to "Growing Interest"	%
Strongly Disagree	1	28.2
	2	26.8
	3	23.0
	4	13.6
Strongly Agree	5	8.4

Although the average current and near-term level of interest was perceived to be very low, another aspect of distance learning diffusion is the presence of distance learning "pioneers" among the faculty. A pioneer is a person who is willing to take risks and try new and experimental technologies and to seek improvements in their application. Pioneers often are important in the widespread incorporation of distance learning technologies in an academic department because they act as both champions for the concept and role models of successful applications. The ability to identify a resident expert among the faculty is an indicator of a stronger distance learning prospect in the future. One interest in conducting this study was to establish a cohort of those who are perceived as pioneers or leaders in the area, for future study and support. When asked if there is "a person in your department who would be considered well informed or highly interested in distance learning?" and asked to identify that person, 47.1% responded affirmatively and provided a name.

What types of encouragement and support do faculty get to change old habits and invest the time and energy in new delivery techniques, some of which are inherently more labor-intensive and more demanding than traditional instruction? When asked "Are faculty pursuing distance learning with any assistance? (Circle all that apply)," 37.3% responded that they did not get any assistance whatsoever. Of those who did get assistance, 55.2% indicated some technical support, 23.3% indicated financial support, 28.7% indicated equipment support, and 5.4% indicated "other." These rates of response tend to indicate broad technical support from the department; interestingly enough, the reported rates of support were significantly greater than the reported rates of distance learning usage. However, when asked if the specific faculty members received "special incentives or compensation," 69.2% responded negatively even though recognition was one of the affirmative options. Thus, the response rate for specific faculty incentives (30.8% of all respondents) is significantly less than the reported rate of overall distance

learning usage (42.5%). Financial support for faculty was the most common means of encouragement and support, reported by 21.3% of all respondents to the survey (and by 75% of those responding affirmatively to this question). Of those who responded that special incentives or compensation were available to faculty members (less than one-third of the total respondent pool), the source of support was identified as the university by 63.3% of respondents, while 33.3% identified the college and 15.5% identified the department or other sources.

The Perceived Quality of Distance Learning

What are the perceptions among faculty chairs regarding the quality potential of distance learning? Overall, those perceptions are not good. When asked to agree or disagree with the question, "distance learning is generally not an appropriate way of teaching political science," nearly three-quarters of all respondents agreed with the statement. Nearly half of those strongly agreed (a 4 or 5) and the other half were in general agreement (a 3). Only 7.9% strongly disagreed with the proposition that distance learning was a generally inappropriate way to teach political science. See Table 8 for results.

Table 8
Appropriateness of
Distance Learning in Political Science

Degree of Agreement	**Responses to "Distance Learning Not Appropriate"**	**%**
Strongly Disagree	1	16.1
	2	21.1
	3	37.6
	4	17.2
Strongly Agree	5	7.9

Are faculty chairs more favorable when asked about distance learning at its best? When asked to agree or disagree with the question, "distance learning can be as good or better than conventional teaching," only 20.6% agreed strongly (a 4 or 5 on a 5-point scale), and another 33.1% moderately agreed. However, 46.2% felt that distance learning was incapable of ever being as good as conventional teaching, *even when distance learning was at its best*. See Table 9 for results. These two questions, taken together, indicate widespread and profound reservations about distance learning as a quality medium for educational delivery in political science. This finding goes a long way toward explaining the relatively small scope and role of, and the very modest interest in, distance learning.

Table 9
Distance Learning as Good or Better
Than Conventional Teaching

Degree of Agreement	Responses to "As Good or Better"	%
Strongly Disagree	1	18.1
	2	28.1
	3	33.1
	4	14.6
Strongly Agree	5	6.0

A series of four questions in the survey inquired about the effects of distance learning on the quality of education regarding students, faculty, department programs, and colleges or universities. The perceptions of faculty chairs in three of these areas—on the educational process for students, faculty, and departmental programs—follow a similar pattern and have identical mean response levels. Approximately 40% of responding department chairs are neutral about the effects of distance learning on the quality of education, indicating they believe that distance learning will neither improve education nor diminish it. Approximately an equal number feel that the educational process will be diminished. In these three cases, then, those who strongly feel it will diminish the educational process outnumber those who strongly feel it will enhance it by a 2-to-1 margin. The respondents are significantly more positive, on average, when the question relates to the educational effects on the college or university; however, those who strongly feel that the effects will be negative still outnumber those who strongly feel that the effects will be positive. See Table 10 for the responses to these four questions.

Table 10
Positive Effects of Distance Learning on Various Constituencies

Degree of Agreement	Response Options	Positive Effect on Students	Positive Effect on Faculty	Positive Effect on Departments	Positive Effect on Universities
Strongly Disagree	1	10.2%	10.2%	12.6%	10.5%
	2	28.0	30.7	27.7	24.2
	3	43.7	39.4	40.3	37.1
	4	14.6	17.7	15.8	21.9
Strongly Agree	5	3.5	2.0	3.6	6.3

Discussion

It was proposed here that the size and scope of distance learning are affected by three major factors. This relationship could be represented by the following formula:

Size and scope of distance learning =
(capacity of distance learning technologies)
X (market demand)
X (faculty/university interest in distance learning).

This study has examined intensively only the dependent variable in this model—the size and scope of distance learning—and one of the three elements of successful distance learning. Department chairs are well situated to provide information and opinions about the size and scope of distance learning, as well as the level of interest in distance learning among their faculties, departments, and universities. However, we did not investigate either the capacity of distance learning technologies or the nature of market demand because academic department chairs may not be particularly well situated to provide more than impressionistic data in this area. Nonetheless, the data supplied through this study provide an important baseline and the means to design some hypotheses about those areas that have not been studied directly.

First, the size and scope of distance learning in political science are small from any perspective. For such low size and scope, according to our model, all the contributing factors must be relatively small. Furthermore, the size and scope of distance learning in political science are projected to stay small for some time. In our survey, the only item indicating that department chairs may see possible long-term growth in this area of the field is the question related to faddishness. That is, most chairs do not see distance learning as a fad, even though little or no short- term growth may be projected.

Certainly the level of interest in distance learning demonstrated by the chairs of political science departments was low overall. The average level of knowledge was quite low, the extent of near-term interest was very small, over half of the departments failed to have an identifiable pioneer, and specific support and financial incentives were not the norm. Also, faculty chairs as a group were very skeptical of the quality of distance learning, with significant blocks of them harshly critical of distance learning, even at its best. These data are important because they indicate that if future growth is likely to occur in distance learning in the field of political science, it is unlikely to come from institutions and faculty *as educators*. Institutional push from within is unlikely to be the chief promoter of distance learning.

Technical capacity was not studied directly here. However, one question—the type of distance learning technologies employed—did provide indirect information. Numerous methods are already in use. It remains to be seen whether many of these methods are going to play a small role, as methods of distance learning have done in the past, or whether they are a beachhead and provide a launching point for substantial future expansion. The Internet does provide genuinely new and affordable distance learning options, although the software and expertise are still limited across the higher education landscape. Because the Internet already has reconfigured other enormous industries such as mail and telephone, and because it is beginning to make gigantic inroads in commerce itself (book sales were the example used earlier in this article), it does seem that higher education is wise not to assume that new technologies are merely a fad. Nonetheless, issues of quality and faculty inertia must be overcome by continued growth in user-friendly technological improvements if significant increases in distance learning are to be seen in the short-term or medium-term.

Neither was market demand examined directly in this article. However, some indirect evidence on that point is provided by the results of certain questions in the national survey of political science department chairs. There were no suggestions in

these data that distance learning competition is significantly affecting political science departments at this point, and only 10 institutions (3.4% of the sample) indicated that they offered 10 or more distance learning classes. Although it would seem likely that market demand will increase, it is impossible to predict with any accuracy how quickly demand will increase and to what degree. The data presented here suggest that most political science chairs are not gearing up for greater demand in the near- term. Yet at a broader level some established institutions seem to be gearing up nationally with significant incentive and program enhancements, and the new virtual universities are still ramping up. Although it has been found that over 90% of all universities with enrollments over 10,000 and 85% with enrollments over 3,000 have some distance learning classes (McGlynn, 1999), individual departments are far less consistent and supportive. It is simply too soon to tell just what this will mean for higher education generally, and for political science specifically.

Future Research

Although it is customary for researchers to call for more study in their area of interest, that is more than a pro forma recommendation in this case, given the exploratory and incomplete nature of the research to date on distance learning in political science. We believe that there are at least three critical areas to examine in more detail. First, it is important to provide a baseline on two of the contributing factors. Of the elements of the model that we propose, which identifies three elements that in combination lead to the growth of distance learning, we were able to study in depth only the result (current size and scope) and one contributing factor (faculty/university interest) because of the nature of the audience surveyed. Two elements (the capacity of distance learning technologies and market demand) are not studied here directly. Such study requires an examination of the specific technical capacities of distance learning related to political science courses, perhaps through case studies, and an examination of demand factors, perhaps by investigating the leading competitors, surveying various types of students, and scrutinizing related disciplines.

Second, one aspect of the faculty/university interest factor that desperately needs further exploration is the highly negative perception about the quality of distance learning. Are there any relevant examples of high-quality distance learning in each of the different distance learning domains (two-way interactive video, Web-based, correspondence, etc.)? If so, what are the factors that lead to the high level of quality? What structural problems need to be overcome or minimized? What are the structural opportunities on which to capitalize? What are the common problems encountered in implementing distance learning, and how can communication be encouraged to share knowledge about what would be necessary to overcome them? Clearly, political science chairs, as a group, perceive that there are problems with distance learning. The most immediate utilitarian question is: What can be done to minimize the legitimate concerns about distance learning? Following from the answer to that question is the other essential query: What can be done to change the perceptions about distance learning that construct barriers to its successful implementation? These questions need to be addressed with the goal of achieving practical programmatic assessment, perhaps along the lines suggested by Banta, Lund, Black, and Oblander (1996) and the American Association for Higher Education (1992).

Third, it is important to track the baseline data longitudinally. We intend to repeat this survey after two years to see what changes have occurred with our targeted audience, political science department chairs.

Conclusion

In many respects, the results of this survey provide sobering reminders of the difficulties and complications associated with the adoption and diffusion of new instructional technologies (see, e.g., Rogers, 1995). Political science faculty (and their departments), as with many academic disciplines, seem to lag rather far behind in the adoption of innovative distance learning technologies. Incentives for faculty members to participate in distance learning are at best sporadic and uncertain. Levels of interest and participation in distance learning cannot be expected to increase appreciably until there are clear and sustained benefits for faculty members to take part in what often is a major drain on their time and intellectual energy. Publication requirements for promotion, tenure, merit increases, and honorific recognition may not coincide with outlets available for publishing the results of scholarly studies on distance learning. Also, the time and energy commitment required to get innovative distance learning courses off the ground may detract greatly from what it takes to be a fully functional academic professional in a discipline like political science. It would be of great interest to know if other disciplines evidence similar characteristics of career opportunity structures.

Addressing the perceived quality of distance learning courses is essential in any effort to get faculty members to commit themselves to the evolving instructional possibilities associated with instruction at a distance. It is imperative that distance learning not be seen as a poor stepchild within the broader departmental curriculum, nor that it be seen as providing watered-down versions of on-campus offerings. To achieve the objective of integrating distance learning within departments of political science in particular—and within any other academic department—issues of course quality and curricular integrity cannot be ignored. As with any innovation (Rogers, 1995), several stages of progression toward widespread adoption of distance learning will be followed, with varying degrees of success. There is likely to be a high level of resistance in the academic context arising from a combination of individual and institutional impediments that raise barriers to adoption.

James J. Kaput of the Department of Mathematics at the University of Massachusetts-Dartmouth and Jeremy Roschelle at the University of California, Berkeley indicate in regard to implementing digital education initiatives that there exists in traditional education "… an entrenched layer-cake, formalist-oriented curriculum that prevents most students from seriously engaging with important ideas. This curriculum is held in place by powerful interlocking forces and deeply institutionalized habits that allow space for innovation and growth only at the margins" (Kaput & Roshelle, on-line).

A powerful demonstration effect may be achieved by disseminating exemplary case studies of how to do distance learning right and by evaluating how best to link distance learning with the more successful aspects of higher education curricular innovations such as learning communities. Overall, an emphasis on holistic approaches to higher education, rather than on the development of specific course-based competencies, would seem to be a necessary prerequisite for enhancing perceptions of the quality of distance learning (Leip, 1999). How to achieve that holism is not obvious, but a reasonable starting point might be to establish specific recognition (for example, faculty teaching excellence awards) of outstanding performance in distance learning and thereby provide institutionally- supported targets toward which all can aspire. More general reward structures that enhance the opportunities for promotion, tenure, and advancement certainly need to take into account the special requirements imposed by a commitment to distance learning. Failing that, it is difficult to see how disciplines such as political science can be expected to join other fields of study in expanding and maintaining a

commitment to distance learning. The proposed guidelines for Information Technology in Political Science drafted by an ad hoc committee of the Computers and Multimedia section of APSA is a good start in this direction. (On the Web at http://www.public.iastate.edu/~sws/).

Ferdi Serim has put the dilemma we face nicely,

> The symbiosis between education reform and the integration of technology into learning is profound: technology requires the rich learning environments envisioned by reformers; reform demands the power of technology to put people at the center of their own learning. Systemic adoption of reform will take a critical mass of educators, who must await the realization of the promises of technology to transcend isolation and join in collaborative professional growth.

We who are concerned about the future and direction of education face a scalability problem: reform requires these educators to rise to the level of performance typically encountered in master teachers. This realization can invoke a sensation of paralysis. The resulting inertia mirrors the way that fear of technology prevents many of our peers from having the experiences which would enable them to embrace, then direct, the potentials that technology-savvy educators rhapsodize about." (Serim)

In the end, we agree with Dennis Trinkle (1999, p. A60) that "the reality of distance learning is complex, and we must give it the measured consideration it demands." With Trinkle, we believe that distance education is a means to an end; hence the end must be measured by student learning outcomes and by institutional and programmatic academic integrity.

Notes

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1. Narrower wording might have stated: "Does your department have classes that are primarily distance learning based?"
2. Reported response percentages for individual questions are based on those responding; nonresponses for individual questions are excluded.
3. An alternate question asked for the same type of information but used the opposite perspective: "Distance learning is a marginal part of teaching in our department." The results were nearly identical and therefore are not reported here.

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