**The strategic paradox of online learning:**

**administrators and students approve--faculty not so sure**

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Abstract

The aggregate statistics for online learning in postsecondary education leave no doubt that it is a blazing success. Over a third of all college students are taking at least one course online and overall online enrolment numbers have increased significantly, even though total college enrolment decreased by one million students since 2012. It would seem that this increasingly popular mode of delivery must be an essential part of every institution’s strategic goals. But there is a paradox here. For nearly two decades, while administrators have been increasingly more favourable to the point of two-thirds or higher acceptance of online learning, a roughly similar percentage of full-time faculty members are neutral or non-supportive. If faculty, especially senior professors, who are responsible for determining both the academic content and the delivery method, are not strongly supportive, it is difficult to imagine a successful strategy-centered growth trajectory in on-line education, no matter how much it is favored by students and administrators.

We examine several aspects of this apparent paradox. First, we recap the major favorability/neutral/unfavorability findings since the early 2000’s, concentrating on the Babson reports from 2002 through 2016 and the Inside Higher Education/Gallup reports from 2013 through 2019. The Babson data showed faculty favorability percentages hovering at 30 percent. The Higher Education/Gallup data has varied between 25 and 35 percent for tenured faculty. Favorability ratings for administrators in recent years have been in the range of 70 percent, recently even higher.

Next, we analyse some of the reasons for the apparent disconnect between faculty and administrators’ sentiments about online learning. Administrators may view it as a potentially attractive revenue source through using technology to lower unit costs and recently have introduced partnerships with On Line Program Management (OPM) vendors to broaden offerings and enrolments. For faculty, this could be a threat to job security. In addition, faculty have concerns about the added time required to prepare an online course and doubts about the effect on promotion and tenure, all of which can affect acceptance. There is evidence that reduced dependence on the traditional concept of residency – based higher education, could also result in reductions in face-to-face learning. This, of course, could influence the perspective of full-time, tenured faculty-- threatening their normal routine.

Most of the nearly 7 million college learners today are not being taught by highly hyped Massive Open Online Courses (MOOCs). Instead, they are experiencing a relatively simple asynchronous technology mix: instructor – prepared content presented over a standard commercial Learning Management System. These could be called Plain Old Online Courses, POOCs, as domestic telephony was once referred to as Plain Old Telephone System Systems (POTs). Will POOC’s predominate or will they be replaced by more efficient systems capable of further reducing unit costs of teaching?

Keywords: Strategic Focus of DL, Favorability Metrics, Faculty Attitudes, OPM

# INTRODUCTION

In mid-December 2019 the latest statistics on online education in postsecondary institutions were released by the National Center for Educational Statistics (NCES). This report, the Integrated Postsecondary Education Data System (IPEDS) annual analysis, is considered the gold standard for data of this type. There were several notable findings concerning online education. First, the number of students taking online courses has risen from 31.4 percent to 35.4 percent in two years. Almost 7 million of the 19.7 million current college students are taking at least one online course, and of these almost half (16.7 percent) are taking *all* their courses online. This rise in online learning preference has been occurring for a long time, even though total college attendance continues to drop. The number of students taking no online courses has declined from 15.3 million to 12.7 million over the period 2012 to 2018; the number of students taking all courses online has risen from 2.6 to 3.3 million and the “some online” category has risen from 2.7 to 3.7 million over the same period of time. And over that six year span college enrolments overall dropped from 20.7 million to 19.7 million. Simply put, total college enrolments are decreasing while online enrolments are increasing—significantly [1].

With these strong positive trends for online learning as a background, it would seem that institutions of postsecondary education would be solidly supportive. The actual case is much more complicated. For a number of reasons, which will be examined, faculty are not nearly as supportive of online learning as administrators. The most negative views among faculty respondents are from tenured professors, who have the greatest stake and interest in academic outcomes. After all, tenured faculty are the leaders in decisions on course initiation, design, planning, and other aspects of teaching, in addition to voting on promotion and tenure decisions. So tenured faculty, especially full professors, might be expected to be the ones leading the charge to meet students’ obviously increasing desires for online learning.

# ELEMENTS OF The paradox: administrator and faculty views of the importance AND STRATEGIC VALUE of online learning

This paradox has three elements, all interrelated. They are: historical general favorability of online learning by senior institutional management, historical general unfavorability and support of online learning by instructors/professors, and historical positive perception of online learning as an element of the institution’s long term strategic thrust by senior institutional management. With respect to senior management attitudes, e.g. at the level of provosts, deans and department heads, if there were not a general sense of approbation and support, it is unlikely that any growth in online deployment would be happening. Provosts and academic deans set out the teaching and learning priorities, and implicitly the teaching and learning methodologies for the institution. Is online learning viewed as a net positive or negative by these leaders? Is it considered a burden or an opportunity? Is online learning a way to reduce unit labor costs?

Being in favor of a process is important but the real test is whether online learning is considered strategic. This second element of this paradox has to do with the crucial question of whether online learning has a place in a long term strategic planning of the institution. Do the long-term goals of fostering a learning community, improvement in academic coverage, quality of course delivery, student satisfaction, etc., fit in with the delivery methodologies employed in online learning? In developing the institution’s long-term growth strategy, is online learning one of the small number of crucial elements in the mix? If online learning is strategic, then it also figures in the crucial allocation of financial resources as well as plans for construction, faculty development and, especially, decisions about new course and program development. Therefore, the attitudes of senior management toward the long-term role of online learning, and its strategic niche, definitely shape the institution’s future.

The third element in this paradox, viewed by us as the most crucial, is the perspective of the individuals who are actually doing the teaching--professors, instructors, graduate students, contract faculty, adjunct faculty etc. What has been the perspective of this population historically about the introduction of online learning? Have they gradually become acclimated to the idea of reduced face-to-face time and more courses delivered at distance? Are they supportive of various new techniques of online learning deployment, from hybrid teaching to Massive Open Online Courses (MOOCs) to partnerships with textbook contractors using the Online Program Management (OPM) approaches?

# The babson reports (2002-2016) and the ihe/gallup reports (2013-2019)

In spite of the tens of thousands of articles about online methodologies, techniques, distribution methods, and other related issues associated with online course deployment, relatively little is available on the actual opinions and perceptions of leaders, administrators and instructors. Fortunately, there have been two sources of information that have aimed at directly measuring and assessing these sentiments. The Babson Reports, so-called because they are produced by a large statistical research center at Babson University, from 2002 through 2016, with a few gap years, have performed precisely this role. The basic methodology was to send questionnaires to senior academic managers – provosts, vice presidents, deans, etc. -- at hundreds of colleges and universities in the United States requesting detailed information about perceptions of the impact of online learning. For 14 years the Babson assessments of faculty and administrators’ sentiments about the online teaching milieu have been widely distributed and discussed [2].

In 2013, a new kind of annual study of faculty attitudes about online learning was initiated by Inside Higher Education (IHE), the leading Higher Ed technology blog. In subsequent years IHE joined with the Gallup organization and more recent versions of the report have been a partnership between the two. The IHE/Gallup report differs from the Babson study in several important ways. First of all, instead of interviewing administrators to get the impressions and sentiments of faculty like the Babson approach, IHE/Gallup contacted faculty and administrators directly. Data on faculty was not based on supervisors’ impressions, but on comments from the faculty themselves. Secondly, some of the demographics of the IHE/Gallup data were more finely drawn; for example, breakdowns of faculty in terms of full-time, part-time, tenured, nontenured, and also a category called “technology administrators” [3], [4], [5], [6], [7], [8], [9].

# Are learning outcomes in online offerings comparable to face-to-FACE? — administrators’ perspectiveS from 2002 through 2019

Perhaps the most striking finding of the 2002 through 2016 Babson reports has been the consistent and increasing certainty by institutional managers that online learning outcomes equal or exceed those of traditional face-to-face methods. Figure 1 shows the Babson data summaries through 2016, clearly a steady rise. A closer look at the data indicates that in seven of the ten data points across 14 years well over half of those questioned felt that online education was at least the same as face-to-face in its outcomes and another 20 percent felt it was better. It could be argued that this very strong approbation of the ability of online education to achieve suitable outcomes, the ultimate goal of the learning process, is a very strong vote of confidence. As will be noted below, it also is a contrast to the almost identically opposite percentages of faculty approval.

Figure 1. Academic leaders’ acceptance of online learning—general favorability and importance to long term strategy-based on Babson Reports (2003-2015) and IHE/Gallup reports (2013-2019)

The IHE/Gallup studies from 2013-2019 were mostly about faculty, but also included a question about the impressions of “digital learning leaders”. These individuals, senior managers with specific responsibility for the success of online learning, would be expected to be positive, and the data through 2019 clearly indicates that, hovering in the 90 percent range in recent years. The overwhelming impression presented in figure 1 is that college and university administrators are definitely positive in their assessment of online learning.

# Is online education strategic? Perspectives of academic leaders

Figure 1 also shows a sequential analysis of the views of senior postsecondary managers concerning the strategic role of online learning. Covering the period 2002 through 2015 the successive Babson questionnaires kept track of answers to the statement “online learning is critical to the long-term strategy of my institution”. The trendline begins with half of the administrators agreeing and over the following 13 years shows a steadily increasing trajectory, which at its highest point, 2014, was 70.8 percent. The “disagree” percentage is consistently in the low teens, hitting 8.6percent in 2014. In terms of institutional control, that is, public versus private, for the period 2006 through 2015, public institutions hovered close to three fourths agreement with this question, while private colleges, while agreeing, showed lower percentages. Without doubt, these successive inquiries into the views of academic leaders reflect a clear answer to whether online learning is critical to the long-term strategy of their institution. A resounding “yes”.

# faculty attitudes toward online education FROM 2002 through 2019

The summary data for almost two decades just described indicates that managers in the postsecondary education sector have a long-term trajectory of strong support for online education, both as a learning technology and is a significant strategic component for future planning. To complete the three elements of this paradox we next examine the attitudes of faculty. It should be remembered that there is a wide range of titles and demographics for faculty. A report by the American Association of University Professors (AAUP) indicated that of the 1.3 million instructors in colleges and universities in the United States, 21 percent of them are tenured, and another 8 percent on tenure-track, leaving the remainder as either non- tenure track employees (17 percent), graduate students (14 percent) and adjunct faculty (40 percent) [10].

Both the Babson reports and the IHE /Gallup summaries recognize the diversity involved, but the IHE /Gallup studies separate and delineates categories. Figure 2 describes a 14-year trajectory of responses to the Babson study statement “faculty at my school accept the value and legitimacy of online education”. For this relatively lengthy time segment. the “agree” responses hovered between 27 and 32 percent, averaging 29 percent. More than half of the respondents were neutral on the subject and a relatively small number disagreed. How might this result be interpreted? It should be remembered that the respondents in the Babson data were senior academic administrators who were assessing their own faculties’ perceptions, so the true faculty results cannot be known. Nevertheless, it seems clear that there was a consistent, relatively unvarying assessment that faculty are not comfortable with online education. The fact that the neutral views were so prevalent could mean possibly that faculty were not yet aware of or concerned about online education, but, especially during the latter years of this Babson analysis, online education was moving to its current level where over 30 percent of all US students are participating in at least one online course, so it’s unlikely that the faculty were unaware. The high neutral response rate probably indicates a certain passive awareness, not necessarily participating in online learning, but apparently cognizant of and perhaps wary of its potential effect on them.

The Inside Higher Education/Gallup annual reports make it possible to get a finer grain of detail not available in the Babson reports. They began in 2013 and have continued through 2019, paralleling and then adding to the Babson cycle sequence. It involves not managers’ assessment of faculty attitudes, but actual data reported by individual faculty members themselves. Also, the IHE/Gallup Reports differentiate faculty responses across five different categories: all faculty, full-time faculty, part-time faculty, tenured faculty, and nontenured faculty.

Figure 2. Faculty acceptance of online learning based on Babson Reports (2002-2015) and IHE/Gallup Reports (2013-2019)

The Inside Higher Ed /Gallup Report asks faculty members to assess their sentiments about online learning with respect to “my school” and “any school”. The results of both are shown in figure 2. In 2013 the overall acceptance rates are actually lower than those of the Babson reports of 2013. The “any” numbers for tenured faculty were 17 percent and “mine” 21 percent, probably indicating that if online learning was going to work at all it had a better chance in the familiar setting of one’s own institution. By 2019 the tenured faculty acceptance rate is up to 29 percent with “any” and 34 percent for “mine”.

There are several useful insights from the Inside Higher Ed /Gallup numbers from 2013 through 2019. First, favorability rates are mostly rising over the seven-year span of these reports. Even the lowest category, tenured professors, almost doubled from its 2013 rate. Second, this increase seems to match another statistic in the Inside Higher Ed /Gallup findings, that of number of faculty actually having taught an online course increased to almost 50 percent, possibly accounting for the rise in acceptance scores. As professors begin to actually experience online processes, apparently they feel more empathy for it. Nevertheless, in general, faculty acceptance is significantly lower than that for administrators, and tenured faculty always lowest.

Next, we suggest several issues that may explain or at least give insights to the differences in attitude between faculty and administrators concerning online education.

# Possible explanations — Unit cost of labor issues in teaching and the potential rise of non-residency programs

While seldom discussed explicitly, the cost of a college instructor’s activities is beginning to surface in the context of the growing cost of higher education. Now that student debt in the United States aggregates $1.5 trillion, some ideas are beginning to surface aimed at reducing the unit labor cost of faculty. For example, some analysts are projecting the eventual demise of “residential” models in favor of greater stress on online courses and programs. Referring specifically to graduate education, Jonathan Kim, IHE blogger and writer, of Dartmouth University, probably one of the best-known writers on this subject, recently commented:

“We are on the cusp of a bifurcation of graduate professional education. Soon, the vast majority of all master's degrees will be conferred through scaled online platforms that enable lower price points (~$25K). Only highly selective schools with global brands will be able to charge premium tuition (>$100K). And that the undifferentiated middle of the master's degree market ($26K-$99K) will implode” [11].

While graduate programs represent only about 15 percent of all higher education classes, the Kim quote is a reminder that unit costs are just as important in higher education as in business. Over the past two decades there have been frequent suggestions that online learning has the potential for reducing these unit labor costs in several different ways. First, if more students can be included in a single course, the unit costs could be correspondingly lower. The classic TED talk by Stanford professor Peter Norvig, “the hundred thousand student classroom” of a decade ago was a reminder of this potential threat [12].

Second, the “import export” idea, suggests a marketplace in for credit courses that is open to more than just an individual university’s classes, clearly is predicated on reducing the number of teaching faculty required [13]. Some states and regions have actually attempted this sort of consolidation, but many challenges inhibit its development; for example, registration and matriculation difficulties across institutions, even in the same region [14].

Also, direct competition from a growing group of fully accredited mostly online institutions with primarily untenured faculty, like Southern New Hampshire University (SNHU), for the online undergraduate and graduate degree complete programs clearly suggest alternatives to the traditional face-to-face classes taught by higher percentages of tenured or tenure-track professors [15]. SNHU, with a current enrolment of 130,000 students, is on a growth trajectory aimed at doubling that amount in five years.

To this could be added the existence of fully functioning, highly successful online masters degree programs which have a total cost in the range of $10-$25,000, significantly lower than the typical cost of an MBA or a degree in computer science or data analytics. The University of Illinois has an MBA program online with the total cost of $25,000; University of Pennsylvania is now offering a full undergraduate degree for about a third of the normal tuition cost; and Georgia Tech’s masters in computer science and masters in data analytics programs cost less than $10,000 [16]. When top-notch institutions can offer low-cost, fully online programs, faculty at non- participating universities will have to take notice.

Taken together, these different approaches to examining the unit labor costs associated with university teaching may give positive signals to administrators, because of their potential to reduce budgets, but obviously could be threatening to faculty, particularly full-time instructors.

# Possible explanations — POOCs and threats to promotion, tenure and workload assigenment

What does the typical college online course look like? Even though there are endless permutations of the various instructors’ approaches, most of today’s nearly 7 million online students experience a relatively similar cluster of technologies and teaching approaches. First, most of the courses are designed and deployed by an instructor or a team of instructors using a desktop or PC to deliver lecture and study materials. They have been given some training by the institution in using a standard learning management system (LMS) like Canvas or Blackboard. While some institutions make use of elaborate learning laboratories to distribute courses synchronously, the typical approach is a professor interacting asynchronously with his students from office, home, or other location and using a standard LMS the norm. To contrast these every day, common online courses from the elaborate, highly sophisticated MOOCs platforms, they could be called Plain Old Online Courses, POOCs, after the telecommunications term for simple telephone systems, Plain Old Telephone Systems (POTS). Support levels for POOCs may vary widely across institutions. With respect to the availability of resources to train the professor in the latest methodologies, techniques, software, learning management systems, etc. the typical POOC is not characterized by the complexity of MOOCs, where the entire learning environment is highly advanced, often requiring investment in the six figures. In fact MOOCs are barely making a dent so far in University offerings, so far [17]. POOC training for instructors can be anywhere between elaborate, compensated, tailored programs to informal, learn-as-one-goes approaches, depending on the importance assigned to the task by management. POOC’s require extensive preparation and extra time, compared to face to face courses, but once they are prepared, become easier for the instructor in subsequent classes.

However, based on the Babson and Inside Higher Ed /Gallup findings, POOCs, while increasingly popular with students, may not be considered favorably for evaluation of professors in the all-important decisions of promotion and tenure workload allocation. Recommendations on promotion and tenure are made by tenured professors and since only one in three favor online learning, a tenure-track candidate would probably need to think twice before embracing the technology. The classic article on the subject was written by a George Schell, a professor at the University of North Carolina Wilmington, who described his reluctance in the article’s title “Universities marginalize online courses: Why should faculty members develop online courses if the effort may be detrimental to their promotion or tenure [18]?” He listed several examples of inequities in the online learning environment, especially emphasizing the extra time required to learn how to present online courses, the possible inequities due to tenured professors not appreciating the introduction of new learning technologies, and the uncertainties involved, particularly among tenure-track professors who were unsure of the ultimate value of adopting a more risky teaching approach. So for the foreseeable future typical professors teaching typical online courses, will be mostly involved with POOCs, not elaborate or extremely technological breakthroughs, mainstream online modality for many of the 7 million online students in the United States.

# Possible explanations — Online Program Management (OPM) and OTHER Uncertain revenue paths for new online programs – an administrator’s dilemma

Even though academic administrators generally favor online courses as a long-term strategic issue, there is increasing concern about which revenue streams are attainable. A recent article in the *Chronicle of Higher Education* noted that even though aggregate revenue streams from online education are increasing – low barriers to entry – the likelihood of an individual program being profitable are relatively low – high barriers to success [19].

Academic managers have many choices to consider for increasing online course deployment, like acquiring existing programs from other institutions, merging with other large programs like Western Governors University, and forming partnerships with for-profit Online Program Management (OPM) companies. In each of these cases the existing full-time faculty cadre can be adversely affected, either by being required to learn online teaching techniques, commit to higher workloads or, in extreme cases, to be forced into a new organizational arrangement with a different institution. The acquisition of Kaplan University, a for-profit institution, by Purdue University has been reported recently as developing a seriously negative revenue stream, a $43 million shortfall in the first year [20].

The OPM option is becoming extremely popular lately. The basic OPM approach is for a university to contract with a for-profit entity with a view toward improving and expanding various online offerings. There are various levels of engagement. At a limited level the OPM contractor might assist a faculty department with a few online courses, helping professors to convert their current face-to-face offerings to the online version. At the high participation level, the OPM contractor might take over the entire academic subject matter area, say, marketing, developing programs, even occasionally hiring instructors, etc. Payment methods vary, from an agreed-upon percentage of the actual course revenues to specific fee-for-service arrangements. Sometimes faculty are given some additional remuneration for agreeing to work with that OPM contractor in restructuring an existing course [21],[22].The obvious dilemma for administrators is finding a balance among online approaches that will increase unit revenues for each course, even after payment of OPM supplier fees, without discouraging or alienating faculty members who may be already skeptical. A new report released at the end of December 2019 suggests that administrators will need to be extra cautious about these decisions. It shows that new complete online programs – the possible competitors to existing traditional POOCs-- may be significantly limited in growth and scope in 2020 and beyond [23].

If these potential competitors are less likely to be introduced, most online programs will continue to rely on their standard, apparently solid, foundation – professors teaching asynchronous POOCs.

# CONCLUSIONS

Reviewing almost two decades of evaluation of administrators’ and faculties‘ perceptions about online learning suggests a number of insights that can be valuable in today’s complicated academic marketplace. First, the uncertainties of online revenue strategies will definitely affect the allocation of teaching assignments. Administrators will be forced to choose a strategy which, at one end of the spectrum allows a laissez-faire allocation of in-house courses – POOCs-- taught by professors who prefer online teaching and allows the others to be taught face-to-face. The more dangerous but potentially more lucrative approach would involve intentional, disruptive resource allocations which would reduce unit labor costs through wider deployment of online classes which could accommodate larger class loads. Second, if it is true that entire graduate programs with low sticker prices, in the range of $25,000 or less, may become widely available and utilized, administrators will need to consider possible additional disruptions of faculty duties – either joining the online teaching cadre or possibly receiving a higher face-to-face workload. Third, it is crucial that the level of acceptance for online learning on the part of tenured faculty continue to rise. Currently, barely a third of tenured professors is supportive of online education, and this ratio has changed very little over the past two decades.

The non-residency phenomenon we have mentioned – a movement away from considering the physical domains of the institution as an essential part of the learning experience-- will definitely affect favorability statistics. If administrators can see the potential for reduced unit labor costs through the introduction of academic programs that have much lower sticker prices then current ones, full-time faculty will certainly need to be part of this process. Yet will they do so willingly?

The most significant insight is that online courses are slowly replacing face-to-face ones and senior faculty are not on board yet. Since 2012 there are 1 million fewer college students overall but 4 million more online students. The rate of change will probably vary in coming years but the trend seems consistent. The good news seems to be that more and more professors are trying out the online approach, a finding of the Inside Higher Ed /Gallup most recent report, but since so few tenured faculty are favorable to online learning this seemingly positive finding may still portend problems. Senior tenured faculty need to be encouraged to participate, especially since the online modality will continue to be relatively simple, highly popular POOCs--the stable, well supported workhorse technology for most of the 7 million on line students, probably easier to learn and certainly more feasible than more advanced deployment strategies.

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