

## Partnership-Directed Education: A Focus on Technology

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### Abstract

This paper examines the traditional assumptions of an instructional-centered education and considers the modifications introduced by learner-centered and the more radical student-centered approaches in relation to the applications of instructional technology. Finding limitations in each, a partnership design is proposed, which, seeks the mutual success of instruction and learning as well as accounting for the circumstances of instructors and students.

### Introduction

The last decade has resulted in an intensive focus on technology in relation to the pedagogics and didactics of instructional theory and teaching methods, but has largely ignored learning and student life. Currently, efforts are being made to create a more balanced discourse on technology that emphasizes the subtle nuances and complexities of learning within any discussion of teaching (Barr & Tagg, 1995; Love & Love, 1995; Travis, 1995). In a learning paradigm (sometimes called philologies; recapturing the term from linguistics), scholars no longer presume that every student learns the same way or that widely accepted teaching practices necessarily result in optimal levels of learning for students (Barr & Tagg; Guskin, 1997; Rendon, 1994; Rhoads & Valadez, 1996; Stage & Manning, 1992; Tierney, 1993).

In addition, "adult-learner" and commercial versions of higher education have advanced more radical "student-centered" approaches that support market-driven curricula that accommodate student needs and demands, reconceptualize the "student" as "client," and recognize the now-client's agenda as equal if not primary. A more academy-driven approach has been in the nascent field of student studies, sometimes called "mathesics," that examines the lebenswelt of the individual and the community called student (Anderson, 2003).

### *Traditional Assumptions*

Learner centered and student centered sensibilities are most often critically viewed from a traditional instruction-centered standpoint. This standpoint rises on a number of assumptions that (a) clearly differentiate it from the other two, (b) justify the traditional performance and marginalize any others, and (c) have substantial implications for the application of technology in higher education.

We would argue for eight key assumptions: Traditional instruction is canonical, propositional, unitary, hierarchical, linear, global, curricular, and proselytic. The first three of these assumptions refer to the character of the content, the next three to classroom practices and the last two to instructional goals. It is the argument of this paper that conceptualizations of instructional content, practices, and goals significantly affect the development of technological applications, and, therefore, deserve our attention. Traditional content is both "true" and "has to be known" which establishes its canonical character. It is standardized into secure and decontextualized sentences or propositions that Latour (1987) calls "immutable mobiles." And it is made unitary by suppressing exceptions, gaps, contradictions, and alternatives. The result is a monolith

that has a universal modality of meaning independent of teacher, learner, or mode of presentation.

Traditional content can be taught and learned—if delivered in well organized presentations that are engaged by properly prepared and motivated students. With this content, the classroom is global, unmarked by time, place, culture, or context. Translation problems aside, the perfect lesson can be constructed and delivered to the world. And it can be delivered by the highest ranking authority in the hierarchy of knowers to ensure its incontrovertibility. This combination has been, of course, the initial promise of every mass distribution educational initiative from film to radio to television and now to the on-line course. Its appeal comes from the conceptualization of the classroom as a linear transmission from teacher to student which is simplified by the rule that only teachers teach and only students learn.

The traditional classroom is further recognizable by its use of the single-learner model. In the single learner model, each learner is considered to be functionally equivalent to any other learner—no accounting is made for individual differences or circumstances. Fairness is defined by sameness—each learner encounters the same content, has the same assignments, and is judged by the same criteria; and success is defined in individual performance—an assumption rooted in the epistemology of methodological individualism and supported by cognitive theory (Derry, 1996; Simpson, 2002; von Glasersfeld, 1989).

The single-learner model also allows for impersonal teaching and anonymous learning. The teacher does not have to know any student and no student has to be identifiable by any other—assumptions that clearly support the mediation and automation of instruction. If only teachers teach, then instructional goals are their sole province. Those goals are curricular in that they justify both content and classroom practice. Goals are noteworthy because they define which outcomes of instruction are important in the practical terms of assignments and tests. Students who learn “off the books” will still fail no matter how consequential that learning may be. The failure of such students and the success of those who “learn appropriately” are the self-validations of proselytic work.

#### *Modifications Introduced Learner- and Student-centered Approaches*

As traditional approaches give way to learner-centered approaches, they often retain both the hierarchical classroom structure—it is still a management system of control with a single head—and the veridical, monolithic character of content—there is a “some thing” to be learned that cannot be effectively questioned. Students do not participate in the governance of the class or in the selection or constitution of content (Avis, 1995; Burkill, 1997; Rainer & Matthews, 2002; Short, 1994; Smith, 1996; Stunkel, 1999). The single-learner model must clearly be modified, though not necessarily abandoned in its entirety. The most common adaptation is acceptance of some diversity in learning styles (Gardner & Hatch, 1989; Krechevsky & Gardner, 1990; Lemire, 2002)—she is a visual learner; she learns through structure, etc. The instructional designer accounts for some finite—usually small—number of differences and content is prepared to accommodate those differences.

Finally the authority for goal setting remains firmly in the hands of the instructor. The result is a series of assignments and tests that are mixed format to ensure that no single learning style has an advantage (or each is equally disadvantaged). The overall

instructional protocol looks like a digesting python with a single set of initiating conditions, a bump of diversity in the middle, and a single exit strategy.

Student-centered modifications have been primarily driven by the economics of competition for educational dollars across universities and colleges and for threshold attendance in individual courses. Public, higher education has become state-assisted rather than state-supported as an increasing percentage of the budget must be met through tuition, special fees, grants, and development funding. Further, state dollars have been tied to so-called standards of productivity, which generally translate into student-credit-hour production. The primary effect of these has been growth at the institutional level through changes in acceptance strategies and increased accessibility to courses and of course content at the departmental level. What we are seeing are both greater size and increased diversity on the landscape of public, higher education and a reduction of barriers to entry and of content requirements within departmental domains.

Student resistance to the traditional model comes in the form of the elevation of certification over education, grade expectations, demands for extra-credit opportunities and rescues through additional work, routine grade adjustments or litigious grade appeals, and more darkly into test files, Internet papers, and all the other actionable offenses defined within that model. Student-centered approaches reduce the labor and risks of students and increase the labor and risks of instructors because the quintessential student-centered model is the education of the prince. As we won't pay for the traditional model any longer and we can't afford a society of princes, it is the middle we have to negotiate.

#### *Implications for Technological Applications*

Each of instruction-centered, learner-centered, and student-centered directions carries its own standards for the pedagogics, didactics, philologics, and mathesics of educational practice. The standards of classrooms, learners, and students, in turn, establish the goals, strategies, forms, conventions, practices, tactics, and techniques of technological application.

For the moment, the instruction-centered approach is the default. Walk into even sophisticated media set ups and one sees a single, central display screen controlled by the instructor's work station, student work stations are not interconnected in any immediately useful sense, and cannot control the display unless selected. This classroom is still hierarchical, single-learner, canonical. Open any of the many course software applications (WebCT, Blackboard) and the characteristics of access rights, content control, instructor surveillance, and the absence of sophisticated interaction routines create a very traditional look and feel. The question remains, What would learner-centered or student-centered applications of technology look like? The answer to that question would seem to hinge on five issues, the authority of the instructor, the primacy of content, the "voice" of the classroom, certification rights, and the means of qualification. Learner-centered and student-centered approaches (to a greater or lesser degree) distribute the authority of the instructor (everyone teaches, everyone learns), increases the diversity of course content (legitimizes multiple paths), create a dialogic voice (members have more equitable speaking rights), presume certification rights (the expectation is for success), and authenticate multiple learning achievements (negotiate the definition of learning).

While all of these sound very liberalizing and empowering, these designs involve breaking the standards and methods of practice of both sides of the instructional

contract. Instructors no longer have control of "their" course and must have a far greater command of material and instructional technique to adapt to diverse and changeable content, certification, and qualification demands. Students have new and unfamiliar responsibilities for instructing, for defining content and learning, and for creating the activities of the course thereby greatly increasing their performance load. The learning curves for both groups are steep; resistance is common.

### **Moving to Partnership Designs**

Despite this resistance, the pressure to enliven technology with the presence of student and learner interests remains. But there is a caveat of concern. The terms instruction-centered, learner-centered, and student-centered each emphasize a particular ideology within the communal microcosm of the classroom. As we consider the next moves of technology, it may be more useful to think in ecological terms that recognize an interlinkage of interests and a systems pragmatics at work. Partnership designs, as we propose, seek the mutual success of instruction and learning as well as accounting for the circumstances of instructors and students. In every classroom, there are instructional, instructor, learning, and student standpoints, requirements, demands, rights, and responsibilities that are sometimes complementary sometimes competitive, but that survive even the most repressive perspective taking. For example, no learner-centeredness can reach beyond the limitations of the instructional staff to adapt content. A partnership, however, would allow the use of the content adaptations that reside on the student side of the desk by legitimizing students' rights to teach.

Taken to an extreme, partnership designs can politicize the classroom, encourage the formation of parties that vie for control, undermine the veridicality of content, and allow for a cacophony of voices that silences all. Again it is the middle of things that we must negotiate. Partnership designs must necessarily change the relationship between teacher and student and among the students themselves. The instructor, for example, can no longer be a guardian at the entrance to the educated, and the success of one student cannot depend on the failure of another. Teaching changes from the pedantic to the consultative, and student relationships from the competitive and individualistic to the cooperative and collaborative. Technology and its various applications has a number of roles to play in managing this transition and in the performance of synergistic learning.

### *A Foundation in Pedagogical Theory*

To accomplish any of those roles, technology has to be embedded in instructional programs that justify those applications. This study concerns itself with the confluence of three such programs: (a) the cooperative and collaborative learning of the "learning organization" (Senge, 1990); (b) the authentic (Means & Olson, 1994), grounded (Harris, 1999; Usher, 1993), problem-based (University of Delaware, 2002), and experiential learning (Boud, Keogh, & Walker, 1985; Kolb, 1984) represented in "intellectual entrepreneurship" (Cherwitz, Darwin, & Grund, 2001); and the ethical (Smith, 1996; Stunkel, 1999), reflective (Morrison, 1996), and empowering (Lightfoot, 1986) approaches of "liberation pedagogy" (Anderson, 1999; Freire, 1989; Giroux, 1989).

Briefly, the learning organization concept finds its theoretical roots in the connectionist approaches of artificial intelligence, systems theory, and the enactment theories of organizing (Giddens, 1984; Taylor & Van Every, 2000; Weick, 1995). The principles that apply here are (a) that the group (network) can know and accomplish more than any individual (node); (b) that the individual can be advanced through the resources

available in the group; (c) that the group advances at rate faster than the sum of individual effort; and (d) that this increased group advancement in turn advances the individual in a greatly accelerated manner. Such claims, of course depend on the successful management of group processes such as developing common goals, a personal commitment to learning, and effective coordination of action.

Intellectual entrepreneurship is an "instrumentalist epistemology" (Anderson, 1996), which holds that knowledge is a set of instructions for action. Appropriate teaching, then, embeds learning in the application of knowledge, and as such, is part of the "learn by doing" philosophies. The contemporary difference is that the problems approached are not pre-constructed exercises, but rather consequential issues of unknown solution. A knowledge entrepreneur is one who evaluates ideas for their capacity to advance some set of interests, going beyond asking what an idea is to determining what it can do. The worth of an idea is in the entrepreneur's ability to create value from it. Entrepreneurial success depends on, at least, the adequate definition of a problem appropriate to the knowledge base, the availability of group resources for approaching a solution, and a domain of performance in which that solution can be enacted and tested.

Finally, liberation pedagogy is an instructional approach that seeks to optimize student participation in course design, goals, and instructional activities and to maximize student choices within goal-defined boundaries. Within those jointly agreed upon boundaries, class members, in consultation with the instructional staff, collectively develop a plan of study, learning strategies, instructional products, and outcome measures. Brought together these three pedagogical philosophies create a demand for (a) the active participation of the student in course design, goals, and content as well as in instructional practices and classroom activities; (b) a strengthened framework of interaction that includes an advanced set of communication resources that provides for the full and transparent exchange of material and, at least in significant ways, releases the participants from limitations of time and place; (c) an open and indeterminate set of boundaries of performance and product whose final placement are negotiated throughout the course of instruction; and (d) a personal commitment to a partnership of learning and its members' success.

#### *The Contribution of Technology*

Technology can respond to the first three of these demands by changing the terms of access to resources (Alavi, 1994; Bates, 1999; Dusick, 1998), diversifying content (Bates, 1995), liberating modes of presentation (Means & Olson, 1994), creating multiple paths to qualification (McConnell, 1994), increasing the interconnectness and availability of members (Huang, 2002; Warschauer, 1997; Zafeiriou, Nunes, & Ford, 2001), supporting resources of dialogue, discussion, and decision-making (Hantula, 1998; McConnell, 1994), as well as providing linkages across classes and into communities (Harasim & Winkelmann, 1990). And it can respond to the fourth by supporting changes in the system of classroom governance. We will spend a few lines on each of these, and in doing so, we will draw from our experiences in attempting to implement education partnerships across service courses, introductory and advanced disciplinary courses and graduate courses.

*Access to Resources* Internet-situated, course-based applications can provide a 24/7 ubiquity of resource access depending on the conscientiousness of the designer and the connectivity of the user. With diligent posting of materials by all members of the class, any digital text that any member needs to do the work of the class is continually available for retrieval. The practical facts are somewhat different. Over four years and

six classes, we have found about 20 percent have access only at school, which creates a technological division. In addition there has been a steady 10 percent of "technology resisters"—members for whom access is not the issue but the technology is, preferring more traditional media.

*Diversifying Content* The presentational advantages of digital technologies are obvious and extensively noted in the literature (e.g., Rossner-Merrill, Parker, Mamchur, & Chu, 1998). The real struggles appear to be around copyright, intellectual property rights, and the avalanche of materials that high access technology allows to be easily introduced in a flattened hierarchical structure. The classroom is a fairly simple place when content rights are purchased in a textbook and what students need to know is what the instructor already knows, but it can become an unqualified space without the usual canonical protections upon its content. The established publishing houses are moving very slowly to assist in this problem. Individualized texts can be produced from "certified" sources, but the lag is still too great to be effectively managed in even a semester length course and the materials available are still sparse overall. The problem seems to await a satisfactory E-book technology and E-book catalogue through which decisions on texts can be coupled with their immediate acquisition.

*Multiple Paths* Collaborative learning in a technology assisted classroom creates multiple performance paths that in turn create the demand for different constellations of evaluative criteria. Most of higher education, however, still requires an individual grade and many universities do not permit students to participate in grading. We can readily dismiss arguments that fairness requires sameness, but fairness does require that everyone has an equal chance of success and the equal right to fail.

We use technology to manage the equity problem in two ways. A student committee designs and posts class evaluations 3 to 4 times during the semester. The evaluations attempt to cover all the significant issues of the partnership members and to rate instructional performance. Early evaluations tend to focus on structure; later ones on assignments and practices; all of them test equity issues. The evaluation committee presents a report to the class. If any evaluation shows a problem, the class negotiates a solution sometimes through committees, sometimes as a committee of the whole. The second method, we use is group member evaluations. These three to four evaluations are collected at "milestone moments" in group activity. Each member rates her or himself and every other member in a signed but confidential on-line rating form. The form measures member performance across eight dimensions—attendance, participation, accommodation, interaction, diversity, readiness, timeliness, and quality of work—as well as an overall rating.

The data themselves and discussions with partnership veterans suggest that the ratings are taken seriously and done honestly with little reservation. When an evaluation points to problems, there is an intervention by either the instructional staff or other mediation resources. The ratings are not bloodless as the average of the overall rating is used as a weight to calculate the proportion of group points to be assigned to the individual member. The method also provides a very high level of supervision of the individual student. With five to eight people reporting on one another three to four times per semester, the degree of supervision conducted and the amount of information available to the instructional staff is exponentially greater than most teaching methods. The issues of increased supervision (and potential repression) provided by collaborative approaches (also known more darkly as concertive control, Anderson & Englehardt, 2001) are little discussed in the advocacy of collaboration. Research is clearly needed.

*Interconnectedness* Collaborative work requires a high level of interconnectedness (Gamson, 1994). While much of this is still managed through tightly scheduled face-to-face meetings, the cell phone connects absent members to on-going meetings; email provides a common distribution, and all work is publicly posted on the group's website. What apparently has not worked, according to evaluation questionnaires and usage data, has been chat rooms, mostly because of the keyboard interface. There appears to be a clear opportunity for the packaging for instructional use of a "group meeting" support system, beyond polling or anonymous decision making software which is widely available.

*Linkages* Problem-based learning easily migrates to service learning when the problems are drawn from and the solutions returned to the community (Graman, 1988). There are two other linkages that have a profound effect on student performance. The first concerns the horizontal linkages across class members. Although all grading is done by the instructional staff, all work in our courses is publicly posted or presented and evaluated by student members. The public presentation and evaluation of the work changes the character of the work itself by changing the target audience. No longer are students working only to satisfy the instructor. Further, student evaluations, addressed openly, can moderate the parochial impulses of instructor grading. These linkages are a direct result of contemporary electronic distribution technologies when used in a public fashion. One cannot provide the ubiquitous access in carbon technologies nor does the same effect accrue when work is held in confidence. Of all the many differences that technology can make, this one runs deep.

The second linkage occurs vertically across course iterations. Members of any given course have the entire history of the course available to them—assignments, presentations, papers, test questions and answers. Our experience has been that the student community develops higher skill levels and can achieve greater performance values given the examples and protocols provided by previous partners. We have also found that the pedagogical approach has its own reputation, which has led to some self-selection both affirming with veterans returning and informed with students seeking or avoiding partnership courses.

#### *Technology and Course Governance*

The tenets of liberation pedagogy distribute responsibility for course content and activities and require that the authority to execute those responsibilities be distributed as well. The contribution of technology is quite clear. There is a nearly continuous linkage of contact between and among the major constituent groups of the membership. Diagnostic tools are available and otherwise hidden group processes are revealed in regular data collection. Problems can be identified and solutions distributed to all members in a timely fashion. Class time is preserved as much of this work is off the clock and on the website. A significant change in class governance and structure is thus effected.

The distribution of authority, the regular polling of voices, and the full bodied support provided to members create enormous buy-in for the great majority of class members. Students appear to accept hard challenges and respond with remarkable solutions. But it does not work for everyone. Deep commitment by most can, nonetheless, create alienation in a few. The classroom, no matter how liberated, remains a domain of discipline that can engender resistance.

## Conclusion

In this paper we have looked at instruction centered, learning centered and student centered instruction to develop the concept of partnership education. The partnership education that we have drawn has been based on the pedagogical and philological theory produced in the confluence of the learning organization, intellectual entrepreneurship, and liberation pedagogy. The application of this teaching and learning theory provides an integrated response to the demands of classroom practice and student life through cooperative and collaborative action committed to personal success.

It is web-based technology that makes this approach possible in the contemporary, urban, public university with its non-resident student body that manages school, career, and family in the same moment. For those fully connected to a well-provisioned course site, work can get done as the opportunity for it comes available without regard to time and place. But it is also a classroom presence and the interpersonal interaction of group membership that provides the support—and supervision—missing and often sorely needed in the wholly on-line course. As marked by the whole approach, it is a partnership.

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