

*Main Article:*

**Breaking the Rule of Discipline in Interdisciplinarity: Redefining Professors, Students, and Staff as Faculty**

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**Abstract**

In this article we attempt to complicate traditional--and, we argue, limited and exclusionary--definitions of interdisciplinarity as the bringing into dialogue of established disciplines without questioning the parameters and practices of those disciplines. We propose that interdisciplinarity instead might mean teaching and learning among, between, and in the midst of those of innate or learned capacities--not only college faculty but also students and staff. To illustrate this more radical iteration of interdisciplinarity, we draw on a range of definitions of the key terms, "discipline" and "faculty," and we offer a case study of a workshop we co-facilitated in which we brought differently positioned individuals together to engage in the educational process and the production of knowledge. We hope that this discussion contributes to expanding the notions and practices of interdisciplinarity.

**Keywords:** faculty; discipline; interdisciplinarity; role; education; knowledge; learning process; positionality

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**1. Interdisciplinarity *After* Disciplines**

The move toward interdisciplinarity in the academy over the last generation has been a salutary one. It has recognized the limits of understanding in the sciences and of the human condition when one employs just one--however sophisticated and well-developed--set of practices, traditions, and ideologies that goes by the name of an established academic discipline. That the way one discipline studies literature might inform the way another discipline writes history, or that the view of the anthropologist might benefit the sociologist of science, or that the biologist and the physicist or the geologist and the archaeologist have things to say to one another is now a commonplace, almost no longer seen as requiring much comment or any justification. It may be that some day in the not-so-distant future we even embrace the interdisciplinary department, instead of continuing to create "programs" with little status and less funding that segregate and marginalize the work that occupies the interdisciplinary space.

Apart from establishing communication among disciplines, interdisciplinarity also signifies the broader task of building and maintaining an intellectual culture that promotes free and inventive thinking on various issues worthy of inquiry. The significance of such work can be seen in the lives of thinkers who have made a mark in more than one discipline. Consider, for example, Clifford Geertz (1926b-2006d), who has been an influential anthropologist of our times and certainly the most quoted social scientist outside of his own discipline. He was never really disciplined into anthropology either during his student days or later in his academic career. He spent a large part of his adult life within structures at Harvard University (USA), The University of Chicago (USA), and the Institute of Advanced Study, Princeton (USA), that were interdisciplinary at their very core. In him we have the example of what can happen when one is not constrained by a single discipline but rather thinks more widely and more freely, using tools and ideas that see the worlds of scholarship, teaching, and learning as a whole, not as a landscape broken up into narrowly conceived specialties. Maybe preservation of the disciplines--and the discipline people practice within them--that are the bedrock of the inter-disciplines is not as essential as some believe to the production of new knowledge.

But before we congratulate ourselves too much about how fortunate we are to live in a world that has rediscovered what many great minds throughout history have known--that to be truly well-educated one needs to spread one's intellectual net as wide as it is deep--we contend that this definition of interdisciplinarity is only one half of the story and maybe, for the sake of the next generations of scholars, not the most important half. For the story we are telling ourselves about interdisciplinarity still locates the production of knowledge--about ideas that cut across disciplines, about scholarship, about teaching, about learning--within a small band of disciples, the faculty, who, even if they start to be trained in interdisciplinary departments, are still more like one another than not in their habits of mind. So even if we were to move to a world in which the academic discipline that is assumed to be crucial to the interdisciplinary space is replaced by a wider conception, we are still left with the fact that knowledge production remains in the hands of a like-minded faculty. Indeed, perhaps we only reinscribe the notion of disciplines by admitting a wider group of ourselves into the congregation but not questioning the relatively

homogeneous education of the individual believers. It might be instructive to look at older meanings of the words *faculty* and *discipline* in order to rethink what a fuller conception of interdisciplinarity might look like and perhaps to reclaim some of the impulses that led to the current interest in reconnecting what once had been, at least until the early nineteenth century in USA, a much more holistic approach to learning, hearkening back to the ways of such early institutions as the [American Philosophical Society](#).

## 2. Interdisciplinarity *Before* Disciplines

We do not use the word *congregation* lightly in the paragraph above, for one meaning of *faculty* has to do with religious status: “an authorization or license granted by an ecclesiastical superior to some one to perform some action or occupy some position which otherwise he could not legally do or hold” (*The Oxford English Dictionary*). That meaning predates the parochial US American usage that defines *faculty* as the whole professoriate at a college or university. In Germany, to this day, when one uses the term *Philosophische Fakultät*, its commonsense meaning is the people who work in all liberal arts disciplines--that includes not only what Americans would call the faculty, but the students and the staff as well. The original meaning of the term *faculty* had to do with the ability or the power to do something, either because of some innate ability or some acquired skill--a meaning that certainly assumes some kind of status, but not an exclusive one, or certainly not exclusive to the point of determining who is in the congregation and who is outside. *Faculty* derives from Latin and French root words that deal with doing and with being facile in the doing; *discipline* is derived from the Latin for a disciple--a pupil--and the instruction of a pupil. The original meaning of the noun *discipline* was: “instruction imparted to disciples or scholars; teaching; learning; education, schooling” (*The Oxford English Dictionary*).

We know that there are many other definitions for both of these words and we will come to the rest of them in the concluding section. We do not want to make an argument that is based solely on the derivation of words, reifying “original” meanings into eternal truths. But we are interested in reminding ourselves about what faculties and disciplines used to be about precisely because the move to interdisciplinarity seems, in our minds, to be a return, a reconsideration of the projects of scholarship and education that are more integrated in ways that they may have been before the explosion of specialties in the nineteenth century. What would it mean for us to reintroduce these older meanings into the discussion of interdisciplinarity? What could faculty--in the older sense of all those involved in the educational enterprise--be doing when they put two or more disciplines together? What might the relationship be between how professors now conceptualize interdisciplinarity and a richer if more archaic conception of the notion that posits that people who have the innate or learned capacity for doing (faculty) engage in the act of teaching, learning, and imparting to and with scholars (discipline)? In other words, could interdisciplinarity be a way of teaching, learning, and doing research that focuses on the *inter*--the between and among--instead of the narrower notion of the ways in which people and existing

disciplines talk to and learn from one another?

Let us be even more explicit in formulating our suggested definition of interdisciplinarity: If a faculty is a way of doing things well because of innate or learned capacities, if a discipline is a delimited body of knowledge, an object of study, or a methodology and discipline is teaching, instruction, or tutoring, and *inter* means between, among, amid, in between, and in the midst, then we propose that interdisciplinarity practiced by a faculty should mean teaching, learning, and doing research among and between and in the midst of those of innate or learned capacities. What would that look like in practice, for example at a liberal arts college in USA? The members of the faculty would not look like an exclusive congregation but rather would include all who have the ability to do things well--the students and the staff as well as the professors--and the discipline that they would share amongst themselves would be the project of knowledge production.

We want to clarify at this point that we see roles, such as those of professor and student, and disciplines as inextricably intertwined: Both are traditionally about certain kinds of delimiting moves--what is inside or beyond particular parameters: a delimited body of knowledge, an object of study, or a methodology in the case of discipline, different kinds of work, different statuses, or different stages in a process in the case of role. We are not saying that roles and disciplines are the same thing, but we are challenging the reader to redefine both of these at the same time and in similar ways. We are aware of the evolution of both the idea of the faculty and of disciplines over the last century and a half, but we are concerned that the notion of faculty is narrowing while that of disciplines is widening but not deepening. In the present discussion we are asking the reader to think further about faculty--as a much bigger, more inclusive category; we are asking the reader to think of disciplines as produced by a number of individuals who may share some of the same practices, ideologies, and traditions but approach them from different statuses and roles; we are also asking the reader to think about interdisciplinarity as the combination of these redefinitions--as interactions between these newly configured bodies.

### **3. Interdisciplinarity as Collaborative Knowledge Production**

Interdisciplinarity in the sense that is widely shared in academe then, we contend, is not sufficient for the most generative reimagining of learning and the creation of new knowledge in a liberal arts college. A further set of conversations is necessary to move beyond disciplinary parameters--and the roles people assume and are ascribed in relation to those--that can be reinscribed by groups of like-minded, even if disciplinarily diverse, academics working together across the traditional disciplines. The development of information technologies over the last decade can act as a catalyst for rethinking prevailing notions of interdisciplinarity and moving us toward the definition of interdisciplinarity for which we are arguing here. We have seen it in action, and drawing on our experience of co-facilitating a workshop in which questions of technology use prompted deeper questions about knowledge, authority, teaching, and learning, we argue in this essay for a form of interdisciplinarity that is not the work solely of professors

working across traditional disciplinary boundaries but occurs instead when the staff and students in the institution are as fully engaged as their professor colleagues--and in similar ways--not only in the production of knowledge but also in the process of education.

The premise of much interdisciplinary work seems to be that by bringing multiple, different branches of knowledge, each with a set of structures and rules, into dialogue with one another, education and the learner herself can be informed from numerous angles. But the problem we see with this way of thinking about interdisciplinarity is that it leaves unquestioned the very notion of a set of rules that circumscribe a doctrine and define practice. Thus, our main argument is that we want to get back to the root of “discipline” as a commitment to a process of learning rather than accept the contemporary meaning of it as a body of knowledge with clear parameters and practices; we want to get back to and move forward from the roots of the term that call for engaging in a process of learning, gaining facility with ideas and practices and with ways of thinking without becoming locked into--disciplined into--clearly delineated boundaries. We want to argue for learners--professors and staff as well as students--becoming facile enough within a prescribed set of practices that they can move beyond them rather than become more deeply ensconced within them. For these reasons, we are interested not only in multiplying the already established disciplines that come into dialogue as the result of many interdisciplinary efforts but also in multiplying the individuals who are variously positioned within institutions of higher education so that they can contribute to the production of knowledge and to the process of education.

If we define interdisciplinarity not only as bringing together and reifying, even through dialogue, fixed disciplines but also as bringing into dialogue differently positioned individuals with the goal of drawing on disciplines to create something new, then we are raising questions about traditional parameters of two kinds: fields of knowledge and who has a legitimate perspective on and valid input into what constitutes knowledge. By arguing that students and staff are among those who can contribute to a robust and forward-moving array of ideas and practices, we are arguing for education as a process of change (Dewey, 1916), evolution, and translation (Cook-Sather, 2006) toward ever new versions or iterations of conceptions, identities, and practices, not reinscriptions of existing ones. We are arguing that the boundaries and structured sets of practices associated with traditional disciplines and with roles within higher education need to be productively complicated, blurred, or redefined.

#### **4. Interdisciplinarity Differently Defined: A Case Study**

To illustrate what we mean by multiplying the differently positioned individuals who might contribute to the production of new knowledge and the process of education, we offer a case study of a workshop we facilitated three times between 2000 and 2002. The focus of the workshop was on pedagogy--while we include scholarship in our redefinition of interdisciplinarity, we focus in our discussion here on teaching and learning.

In the spring of 2000, we designed this workshop with two colleagues with the goal of bringing together professors, students, librarians, and information technologists to explore their roles and how to work together to integrate technology into teaching and learning. Called “Talking Toward Techno-Pedagogy: A Collaboration Across Colleges and Constituencies,” the workshop supported nine teams each June during three consecutive summers. Each team was composed of a professor, a student entering her junior year, a librarian, and an information technologist. Participants from eight US colleges (Amherst, Bryn Mawr, Hampshire, Haverford, Mt. Holyoke, Smith, Swarthmore, and Vassar Colleges) and the University of Massachusetts spent 4 days together planning how they would collaborate to explore the possibilities for revising one of the professor’s courses through or with technology. In the first year (2000) we brought together social scientists who worked on a range of courses offered in traditional disciplines, including anthropology, psychology, and sociology. In the second year (2001) we worked with humanists in disciplines including history, art history, and literature. In the third year (2002) we worked with scientists in the fields of chemistry, physics, and biology. While each professor brought a discipline-based course as the context of their work, the content of the workshop was in fact the interdisciplinarity we are talking about here. Our premise was that each of the four members of the team had expertise and a legitimate perspective in this collaboration and that by talking together they could begin to break down some of the divisions and hierarchies that structure teaching and learning in traditional college settings in terms of disciplinary knowledge, in terms of role in teaching and learning, and in terms of what is learned and done (see Cook-Sather, 2001, 2006; Shore, 2001).

The workshop consisted of multiple forums and conversations spread out over the 4 days. One forum consisted of small, constituency-based, breakout groups, which offered participants an opportunity to talk with people across colleges who share their institutional role. A second forum consisted of presentations and small group discussions with experts from a range of educational contexts (e.g., small liberal arts colleges, large state-run universities, distance learning programs) and disciplines (e.g., education, German, religion), who were not members of any of the teams but who had extensive experience with exploring teaching and learning with technology and who offered participants insights into and inspiration about working collaboratively to integrate technology into teaching. A third forum was formal, whole-group discussions and informal conversations at lunch and dinner, which gave participants an opportunity to discuss themes and issues that arose in a less structured and more spontaneous way. Finally, teams also worked in college-based disciplinary groups to practice and plan their collaboration. Through each of these forums, each team developed a draft of a proposal for their continued collaboration at their respective colleges.

Through these forums, professors were challenged not only to share their syllabi with other professors as well as with people from different college-based constituencies, they were challenged to rework those syllabi--and thus, to some extent, their conceptions of their disciplines and roles--through collaboration. Librarians and information technologists were

challenged to participate actively in the redesign of course syllabi rather than simply to offer support once they were completed if at all. Such active participation contributed to the conceptions and practices of the discipline that the course embodied. Students were also challenged to be active contributors to the redesign of a course--colleagues in rather than recipients of the professor's labor.

Because all participants were coming from clearly established disciplines and embodying traditionally defined and delineated roles, being challenged to work together in new ways and with new goals necessarily required participants to clarify their understanding of their own and others' assumptions. Over the course of the workshop, they began to question their assumptions about and enactments of particular roles and kinds of knowledge: to imagine and begin to enact a different form of interdisciplinarity.

Simply having time and space to clarify traditional roles and their relationships to disciplines in the commonly used sense led quickly, according to one librarian, to "the recognition that emerged in the minds of different groups about what it is that the others do and what they have to offer each other." This clarification entailed perceiving the delineations of roles, but it also included rethinking some of those delineations as, another librarian explained, "myths and stereotypes were broken down." This is not a fast or simple process. Many of the challenges, another librarian suggested, "stem from of a lack of communication" as well as the need for exploration of what each constituency's "contribution to teaching is and could be." Reconsiderations of what people do and have to offer, of myths and stereotypes, and of who can contribute to teaching and learning are reconsiderations that can lead to revisions of the processes of education and knowledge production. Given the fact that professors are traditionally considered the sole purveyors of knowledge production, they must lead the way toward, as one professor put it, the realization that "all of these wonderful ideas can come to fruition without me doing and being everything."

When it is no longer only the professor in a position of power and authority, others can move from "roles of reactivity to proactivity," as one librarian put it, and beyond that to redefining the contributions of students as well as staff. Taking a proactive stance also leads to questions and comments such as these: (a) from an instructional technologist: "How can I access the student's voice in planning?", (b) from a librarian: "I realize that I would rather have more student input about what kind of resources they think are good," (c) and this from a professor:

I can imagine the possibility of including students not just at this conceptualization stage but . . . as a T.A. . . . or a monitor . . . one can imagine a whole range of alternative models as to how the student can play a continuing role in this [collaboration].

These questions and statements are not simply a reflection of how one might elicit a different perspective on an established body of knowledge and process of learning; these assertions are about redefining the body of knowledge and the associated practices, and they have profound

implications in terms of staff and student identities and roles. Contrasting her usual educational experiences with the active role she had in conceptualizing and teaching a course with a professor, one student captured the essence of the student's role redefinition in relation to course design in particular but also, by implication, to disciplinary notions: "As a student . . . I am usually encouraged to give feedback about what's working [in a class] and what isn't and to develop ideas about what would work better, not to participate directly in making changes."

The critical analysis of who can participate constructively in the work of knowledge production and in the process of education led to a more direct questioning of the traditional parameters of roles, knowledge, and authority. Inspired to move beyond the parameters prescribed by the way his institution constructs his role, one information technologist explained:

As a member of computing services it becomes so easy to function solely within the confines of our day-to-day maintenance of the critical college functions that I find I do not focus on the components of technology that really enhance the curricular mission of our institution. What has inspired me most over the past few days is the understanding that, viewing the faculty/library/IT/student groups as a team, we can work together to create opportunities to use technology in a more integral fashion, in a way that empowers all the players and ultimately enriches the student experience.

Like the student who participated in making changes in a course, this information technologist could see ways of more directly contributing to the work of knowledge production at the college.

Such reimagining of contributions led to further questions. Another instructional technologist queried: "How can I get faculty to teach me about their teaching/research goals instead of them just asking me to teach them about technology?" Moving even more explicitly into the pedagogical realm, one information technologist posed this question: "Who has the authority to make suggestions to professors?" These questions illustrate that these participants did not want to settle for the clear delineations among roles and responsibilities they perceive in their educational contexts. As another instructional technologist put it, the goal of many of the instructional technologists who participated in the "Talking Toward Techno-Pedagogy" workshop was "an evolved role on our campuses . . . over time, whether it's through our own actions or by changing other people's perceptions of us, that we could have more sophisticated involvement with teaching and learning issues."

Some professors heard this call and acknowledged that their courses need to be co-constructed--informed by the *faculties* of a faculty more broadly conceptualized. In a report back from the professors to the whole group, one professor stated:

[O]ne of the things I thought I heard very clearly from both the librarians and from IT people was: We're teachers too and we want to be recognized as teachers; we want our teaching to be understood as teaching. And we heard that and we agree that that's something that needs to be done. So one of the things that we want to do is to negotiate for ourselves, for you, in what sense we're all teachers and in what sense our authority as being our responsibility [sic] for a given course can



accommodate the teaching of others.

In hearing that the information technologists wanted to be recognized as teachers, the professors began to think about how they might need to rethink their own roles and authority to make that possible. Once professors accept the possibility that power and authority can be reconceptualized and redistributed, they can begin to think about how to engage in those processes. After a discussion among professors during one session of a workshop, the professors reported the following back to the whole group:

When we talked about questions of responsibility and authority we focused, necessarily, on the faculty's sense of being the expert people about the content of the course. Then the question that we asked--to which we had varying answers, quite varying answers--was whether technology has the potential for redefining what the content of the course is and therefore for redefining the issues of authority and responsibility for the course. If we're redefining the nature of the subject matter of the course, then does the relationship between faculty, student, librarian, and technologist become a different kind of relationship?

This is a stunning set of reflections and questions when one considers the long history of the sage-on-the-stage model of teaching. This group of professors was willing to question the most basic premise of traditional education that both content and control of courses belong exclusively to professors. These professors took several steps in a process of redefining their own roles and notions of content: They moved from conceiving of themselves as the sole experts on content to questioning whether technology can redefine content to questioning whether allowing technology to redefine content means that everybody has to redefine relationships and responsibilities in the production of knowledge--a process that occurs at the intersection of participants, content, and educational engagement.

These reconsiderations did not remain purely theoretical. When the teams that participated in the workshop returned to their home campuses, many continued to engage in what we are defining as interdisciplinarity: librarians, information technologists, and students remained key players alongside professors in the projects of teaching and learning. For example, one professor described her experience of collaboration, focusing on the librarian's new role and contributions:

We wanted to incorporate a research project, which had not been a part of the course before. We worked on several different aspects of this. [The librarian] helped put together a really nice list of resources . . . and also ran a session at the library . . . [students] were excited and encouraged and did come to talk to [the librarian] about various aspects of their projects.

The librarian added that this was a change for her:

I was glad to have so much involvement in the class, and then to have quite a few of [the students] come to me, either through email or just to walk up to the reference desk . . . For most classes, the best I can really hope for is a 40-minute class session, that's all, not to have the Web presence as well and to have the individual consultations.

Likewise, a student captured the central role she played in the course on which she collaborated with a professor:

Because [the professor I worked with was on leave the year after we participated in Techno-Pedagogy] we spent a whole year reconstructing the course. I had taken the course 2 years before and I attended every class [this year]. I was very involved with the students, talking with the students about how the class was going, and also doing a lot of work keeping Blackboard [i.e., the Web-based discussion forum] up and running . . . we chose to do that rather than have people email each other because people lose emails and that way all the information was on the Web and that way we could drop in and see how they were doing and not be monitoring but have them aware that we could tell who was contributing to groups . . . we really wanted the small group work because of the kinds of understandings we wanted them to be coming to, we thought that would help.

This student is centrally involved first with the professor in reconstructing the course and second in the educational process of the students enrolled in the course.

These examples illustrate how multiplying the people who are variously positioned within institutions of higher education allows them to contribute to the production of knowledge and to the process of education. The number of times these participants use the term “we” in reflecting on their work together seems to indicate how “between, among, amid, in between, in the midst” their work had become. They might have become a *faculty* of the sort we are advocating.

## **5. Towards This New Definition of Interdisciplinarity**

There are numerous barriers to this kind of interdisciplinarity; one professor who participated in “Talking Toward Techno-Pedagogy” speculated on what might be the root of the problem--not so much an institutional set of barriers as a cultural expectation: “The real issue is fear to look stupid and take risks of not appearing to know . . . a real unwillingness to learn.” A real unwillingness to learn is not what we want to think of in any sense of the word faculty. The kinds of structures into which we have locked ourselves prevent us from wanting to learn from our other colleagues--our students and our staff. For discipline--in spite of our attempts to foreground some of its more generative meanings--is also about structure, obedience, and learning a particular branch of knowledge. These are the more normative meanings of discipline, where we perform prescribed roles that support established structures. That these ways of performing are clearly delineated, being interdisciplinary in its commonsense meaning entails performing these roles in a way that crosses the boundary of the discipline but does not change the notion of a prescribed role or structure. That does not, in our view, help move towards the kind of interdisciplinarity we are advocating. Instead of just breaking down boundaries, what if we broke the rules that have set up those boundaries? What if we broke through to an older sense of discipline instead of bringing together arbitrarily delineated disciplines? Such breaking could move us towards embracing a disciplinary world where the roles and the structures are less fixed and more generative.

Promoting a move toward a radical rethinking of discipline might raise concerns because of the more prevalent definition of discipline: punishment for those border crossers who define the borders as not lying within the narrow focus of what counts as scholarly conversation and who counts as a member of the faculty. For while we have focused on just a few of the older meanings of the word discipline--and faculty--there are of course numerous other definitions of discipline as a noun. Returning to the record keeper of meanings, we see that the second meaning of discipline that appears in Webster's New International Dictionary (2nd edition, unabridged)--listed as archaic--is the dominant one operating in higher education: a branch of knowledge into which neophytes are to be initiated. The synonyms listed, however, include a far wider range of practices: instruction, training, culture, chastisement, and punishment. And at the root of the word is the Latin *discipulus*, which means one who learns, one who receives instruction from another. As we have argued, we are interested in complicating both who the "one who learns" and who the "another" might be.

We are not just relying on dictionary definitions for our contention that interdisciplinarity means staff, students, and professors learning together; there are more than linguistic issues that stand between the interdisciplinarity of today and the way we would like to see it conceptualized. One of those issues is the definition of academic rigor, which more often than not amounts to disciplinary narrowness: What is rewarded is mastering the disciplinary language, while the kind of thinking that is commonly called "outside the box" is only acceptable if you can make it work with the received wisdom of the discipline. This tendency brings to mind the typical way a discipline is described in German, as a *Fach*--which has the meaning in English of a pigeonhole. So even cutting through one or more of the neighboring partitions, interdisciplinarity never quite--at least in Germany--gets you thinking outside the box. Another issue is the way many professors talk about their courses by conflating the course with its syllabus, by which they almost always seem to mean only the readings for the course and not the mode of interaction that will lead to the production of new knowledge. The content of the course is the content of these books, and one can display one's erudition by one's choices and one's currency in the discipline by the quality of the books chosen for students to read. The implication here is clear: The students are to be instructed in the received wisdom of the discipline, when one might work with students more productively by thinking first about the learning outcomes of a course--which would certainly include reading important texts, but also might entail what it is one wants to learn.

## **6. Pursuing Our "Unfinishedness"**

In practice, what we are advocating is bringing together differently positioned individuals not with the goal of reproducing a set of established parameters, but moving through and beyond those to new iterations that cannot be known beforehand. The syllabus as it is commonly understood is about things that can be known beforehand--the best that can be hoped for in a class with a set syllabus would be refining existing interpretations within the discipline, not

questioning the discipline itself. The curriculum in the new interdisciplinarity that we advocate is what emerges at the intersection of not just what is assigned but also what other participants bring; it is unpredictable and unknowable in advance (see Lesnick, Cohen, & Cook-Sather, 2007).

To get to more concrete ground, interdisciplinarity would mean that the participants in the creation of a course and its enactment are not all PhDs in disciplines--that flattens out the landscape for learning things that cannot be known beforehand. But there is a problem in learning how to invite these other participants into conversations and the unfolding of education when one's own role and one's status and salary are determined by older disciplinary notions. How do you open up people's thinking as to who has the skill set and critical perspective to inform education when your own status seems to be at stake? Most professors think and are supported in that thinking that only the professor has that authority, not students, not information technologists, not librarians. Getting to a continuum along which everyone has *faculty*--the ability to do something--is a stretch of the imagination that may be beyond the capacity of our institutional structures. Moving away from the kind of exclusive conversation led by professors in seminars--which can look sometimes like an attempt to discipline the acolytes, to initiate them into the arcane language of the select--might mean for some the loss of a comfortable place rather than what it could mean: that we are all here to learn. This is sadly almost a negation of learning in the sense that Dewey tried to communicate. Dewey saw learning as growth and change: things happening in your mind that disrupt current ways of thinking and acting. If we were to connect this to our new view of interdisciplinarity, we would have to reject the version of interdisciplinarity that preserves the existing delineations unchallenged and has you visit different lands without having to revisit your own assumptions.

We are not rejecting all of the definitions of academic rigor of discipline in many of its meanings. This is not a question of either/or. We know that one needs to learn the discipline to free one's self of the discipline, to move to another state of being; the finest athletes know this--you become so proficient in the discipline that you know when to break the rules in order to reach a higher level of understanding. One of the key meanings of discipline relates to learning a sport. Tompkins (1996) evokes the learning of karate to analyze the educational process in ways that we feel are consonant with a new view of interdisciplinarity. She writes about how, in one sense, learning karate is like learning a Western science: "definite, sequential, unvarying, first this step, then that" (p. 159). She contrasts this kind of learning to how one learns the discipline of karate in the body, literally: "The steps alter the person who performs them; you become the tradition, you become the rules" (p. 159). But, as Tompkins argues, you become the rules on the way to becoming liberated; to work within a discipline is not to develop a "disposable proficiency" (i.e., to follow rules routinely and without thought) but rather to choose--and choice is key--a discipline such that it becomes an "outgrowth of who you are" (p. 160). Thus Tompkins talks about the art form moving through you: The discipline itself is not the goal; it is a means to a kind of freedom--the structure of the discipline leads to subsequent freedom. But it

is that last step that we do not take in the way the academy defines discipline, which is much more about reinscribing existing ways of learning, instead of what we think it should be--our recognition of our unfinishedness (Freire, 1998).

We are not thinking along the lines of a paradigm shift--the way the disciplines seem to accommodate change. To return to Geertz, he learned his craft by rejecting the reigning thinking of Talcott Parsons who, in the context of theorizing social action, posited that once you got the system right, the details would fall into line. Geertz thought that was the wrong way round: You need to go deeply into the details in order to try to understand or describe a system. The insight that such a paradigm shift might indeed be a result of an interdisciplinary approach in the older sense of the term is a wonderful outcome, but what we find disturbing about this is that new thinking seems to move forward on the back of--on the rejection of--older thinking. The working inside and between disciplines often leads to a “who is right/who is wrong” mentality--the paradigm mentality--and paradigms seem to be like religions that way: some are more tolerant than others--just like some disciplines can tolerate different disciplines better than others. This habit of the academic mind will be very hard to break, given the reward structures not only in the academy but also in the society at large.

To conclude for now what we see as an ongoing discussion, we want to reiterate that our problem with interdisciplinarity as it is commonly understood is that it brings disciplines together to look for connections among them and interesting differences between them, with the goal of forging a new realm of thinking, but it does not question the actual disciplines themselves that are being brought into dialogue with each other. Further, it reifies and accepts the idea of discipline without questioning whether any set of practices and structures is adequate to explain the world. We are arguing for learning and education that is constantly complicating rather than redelineating understandings, and inviting variously positioned individuals into the process. We are arguing for that day when the question posed by the instructional technologist at our workshop--Who has the authority to make suggestions to professors?--could be answered simply: Those who have the *faculty*.

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