

Social Interaction Within Technology: Reflections Through the Looking Glass

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■ ABSTRACT

Many institutions have overcome the hurdles of finance, logistics and training to secure sufficient computer hardware and software in their colleges. These groups were able to achieve the critical mass required to gain technological momentum. Now they may be ready to address learning outcomes by actively using and integrating meaningful technology in the classroom.

Decriptors: Socila intercation, Technology, learning

■ BACKGROUND

Prognosticators who opposed the computer “fad” predicted humanity would be lost and that the capacity for normal off-line social interaction would be at risk if we continued to use non-human tools to develop human behavior. Although our loss of humanity is debatable, the brave souls who surged forward and implemented technology into their instructional routine may still have reason to complain. Even “early adopters” of technology, experts at offering unique on-line environments and contexts for their students, may feel a distinct lack of affective support from their institutions when integrating technology into their curricula. These emotive, social interactions are a key ingredient to facilitate faculty members transition from traditional to technological possibilities for teaching and learning.

Several years ago, the University of North Florida (UNF) established a full-time technology support laboratory for faculty members called the Center for Instruction and Research Technology (CIRT), which is operated through the Office of Faculty Enhancement (OFE). Although many institutions have similar technology centers, we feel that a major factor contributing to our success is the social support we provide in concert with the technology. Four key social concepts have been identified. These include a safe environment, a multifunctional approach, a service orientation and subtle persistence. An environment must first be established in which faculty members feel safe in asking any question, more than once if necessary. A multifunctional approach is attained through the wide variety of technology tools which are offered through CIRT, but also through the specific workshops provided by OFE which target the three essential goals of faculty - teaching, service and scholarship. Technology is not the focus of the workshops; rather it is one method demonstrated to faculty members to assist them in obtaining their goals. A service orientation allows faculty members to know you are there for them in extended, complex, or multiple task scenarios. As with any other good customer service organization, technology center service involves listening, advising faculty members on ways to save time and effort, eliciting their trust and confidence, locating the best tools for a particular job, and patience. Finally, a non-threatening, subtle persistence is useful in helping faculty members apply technology to satisfy their needs effectively and appropriately.

This paper will address each of these concepts in detail using an actual teaching and learning example through the perspective of a CIRT/OFE professional followed by the same example through the eyes of a faculty member. The goal of this approach is to provide a view of the social interactions of instructional-assisted technology through the looking glass.

■ INTRODUCTION

“The reason that our theories about people and their social milieux so persistently bear mediocre fruit is because we have the unerring expectation that rules, essences, and explanatory themes will be discovered in domains which are anarchic —or at least ineffably complex.” (Gary, 1998)

“Well, I don’t consider what you do here to be *training*, I would call it *consulting*,” a colleague and friend in our university’s central computing division stated unequivocally the other day. She was referring to the day-to-day workings of CIRT at UNF. Our colleague’s main reasoning had to do with how faculty improvement was measured, not how we delivered training. Now how do we explain to her that the model of CIRT staff as “consultants” is both right and wrong? It’s wrong in the sense that our main mode of instructional transmission, small-group and one-on-one delivery, can yield measurable improvements, and often these are greater than the level of change affected by impersonal, highly structured technology courses. It’s also inaccurate because we are very often called upon to be hands-on assistants in “consulting.” It’s right in the sense that at no time, during just about any project, do professors want to be subjected to close scrutiny and a battery of measurements. Professors have already proven themselves before they walk in the door. The semantic contest between “training” and “consulting” is very much like some of the other delicate balancing acts we perform every day in our faculty training center between the *sharing* and *delivering* of information and the *exploration* versus *conformation* of skills-based learning. Thankfully, CIRT has developed an approach to working with faculty members that is both inviting and enriching.

CIRT began in 1986 as an educational software testing facility, but it wasn’t until 1995 that it was reborn as a faculty technology and training center. It took the UNF five additional years to provide CIRT with its first full-time employee and an operating budget. Finally, after seventeen years of growth, revision, rebirth, and further changes, the Center for Instruction and Research has three full-time and one part-time employee, an extensive software library, high-powered workstations and digital video processing stations, scanners, cameras, camcorders, various printers, and a host of specialized peripherals that support digital imaging and educational multimedia. More important than this, however, is the way that CIRT has managed to develop a satisfied client base, a good reputation, and maintain satisfying working relationships with faculty members.

The range of projects that the CIRT lab staff handles is truly amazing. One minute we may be called upon to give advice about a recalcitrant laptop that a faculty member owns, the next minute we may be called upon to help design a web survey, teach someone how to use Blackboard’s Course Management System for distance learning, solve an image conversion problem, or shoot digital video. Needless to say, this kind of coordination among a small staff requires specialization among members of the team, a high degree of coordination, and a steady diet of technical training. In addition, we’ve been able to rely on a certain degree of patience and forgiveness from faculty members when we do not always have instant answers. How then, did we get there from here? And how do we build upon our “formula” for success? This article will outline four key elements that define the strengths of the CIRT lab: the lab as a safe haven for learning, its multifunctional organization, developing and maintaining a service orientation towards faculty, and the law of subtle persistence.

The following sections will address four major social interaction concepts, including a safe environment, multifunctionality, service orientation and subtle persistence. The format will provide an actual teaching and learning example through the perspective of a CIRT/OFE professional followed by the perspective through the looking glass from a faculty member. As in the story of Alice in Wonderland, things are not always as they seem. The underlying story, in what seems to be a world ruled by chaos and nonsense, is quite a frightening one. All the time, Alice finds herself alone and confronted by peculiar things in curious situations. She does not have any help at all from home or the world outside of Wonderland. The metaphors here to technology are transparent as many of our ‘clients’ feel disconnected, confused, scared and alone as new and bewildering applications seem to continually bombard their senses.

■ KEY CONCEPT I: SAFE ENVIRONMENT

For CIRT to be effective in its interaction with faculty members, a working environment must first be established in which faculty members feel safe in asking any question, more than once if necessary. An abundance of research indicates the need

for a non-threatening and comfortable environment for our students to learn effectively. (Maslow, 1970) This principle also applies to teachers attempting to learn new ideas in order to apply them to their teaching and learning. (Sappington, 1984) It seems that it may be even more difficult for one who is typically the lead facilitator to begin at the bottom of the learning curve. At times, this role may be uncomfortable for the veteran instructor, so a safe and low-pressure environment is essential for engaging those who may otherwise be hesitant in taking on a new challenge.

CIRT strives to create a technology laboratory environment that invites faculty members to feel comfortable dropping in any time to ask questions, to get help with a project, or sometimes to simply vent about non-technical issues. By projecting the attitude that we are here for faculty members on multiple levels and will help in any way we can, we create an inviting setting in which they feel comfortable and gain confidence in their abilities. Typically they become more willing to challenge themselves and attempt new tasks or projects that may be increasingly difficult. By celebrating each small success with the faculty member and providing continuing encouragement, without any hint of condescension or superiority, we encourage and observe trust. Since we have backgrounds in the educational arena, we are also able to offer advice in the context of sound pedagogical methodology, an approach that has been lacking in some technology training labs. Hence, we are able to offer advice and support not only on how to use technology, but how to use it in the context of effective teaching and learning. We endeavor to emphasize awareness that the technology is only a tool to achieve more effective teaching and learning, not an end in itself. We have also found it important to keep our technical skills and capabilities on the cutting (bleeding) edge so that more technologically-savvy faculty also feel secure about coming to us with their more sophisticated needs. At all times we welcome new problems and challenges from the faculty members and for ourselves.

In this environment, a social network has developed in which regulars to the lab give support and encouragement to one another and welcome new faculty members. Interestingly, this network at times extends to issues beyond pedagogy or technology. Some faculty members stop by simply when they have had a tough week and need to voice their frustrations. We have joked at times about providing counseling along with our other services, but in reality, the safe, collegial, environment that allows faculty members to feel comfortable venting also allows us to work more effectively with them.

Safe Environment Through the Looking Glass of a Faculty Member in English and Writing Composition

Computer skills can function as the "Great Intimidator" for a new faculty member. My first few days at UNF included a presentation by the CIRT staff and I discovered more "techie-stuff" to learn. Blackboard, Acrobat, Photoshop, et al seemed to form a line of hurdles waiting to trip me up!

After months of interacting with the CIRT staff and their endless patience and knowledge, I possess a new layer of technology skills. I include many Blackboard functions for my writing and literature classes, for example, and I plan to expand that usage in fall term. I frequently ask, "How do I do this?" or "What does this mean?" Even if my questions are simplistic, the CIRT staff coaches me into confidence with new ways to use technology. Do I need a tiny graphic from an online source or an out-of-print-text or even a children's book to make a salient point in class? At CIRT I can quickly scan and transfer the graphic into many distinctive forms for classroom use. Any and every question or problem I bring to CIRT finds a quick resolution. The staff, the technology, and the supportive climate at CIRT allow faculty members the luxury of exploring other disciplines, accessing materials and research in our own field, and bringing that experience to our students. CIRT's staff creates a nurturing climate that eliminates the intimidation of computer technology and makes it accessible for even this computer novice.

■ KEY CONCEPT II: MULTIFUNCTIONALITY

"It is vital to link new information areas with existing models and to develop new training programs integrating subject fields such as communication, information and information technology, corresponding to the concrete and specific needs of multifunctional information." (Wormell, 1995)

The mission of the Office of Faculty Enhancement at the University of North Florida is to support full and part time faculty

in teaching, research, and service so as to advance our university's quest for excellence as a comprehensive university. To accomplish this mission, three major tenets – a mainstay for all faculty – are aligned with our goals and objectives. The challenge is to provide resources, training and facilitation of these tenets to a very diverse group of professionals in a timely, authentic and at times creative manner, hence employing a multifunctional approach. Offering a wide variety of technology tools to facilitate the process and outcome for each faculty member has attained this. For instance, a course management system (CMS) can possibly improve teaching and learning by providing dynamic, interactive information to students. A CMS also manages service activities such as committee work by allowing users to access and share meeting minutes, resources and discuss items asynchronously, thereby minimizing the length of traditional meetings. Finally, data for action research can be gathered via the university CMS in the area of how students behave in a synchronous chat as well as collecting data via the online survey mechanism. Therefore, technology is not the focus, rather it is one method demonstrated to faculty in order to possibly assist them in obtaining their goals.

Multifunctionality Through the Looking Glass of a Faculty Member in Communication Studies

In terms of teaching, service and scholarship, the OFE has provided a wealth of information and resources in teaching and research, for new and seasoned faculty alike. In addition, OFE offers many workshops and interactive seminars that help faculty effectively move from the information-gathering stage to the new-innovation implementation stage. To that end, OFE and CIRT join forces to bring the latest in research and teaching technology to the faculty. Most academics feel overwhelmed just trying to keep up with their area of scholarship, finding little to no time to investigate and critically examine the latest in instructional technology tools. That is where OFE and CIRT come in, bringing faculty the most up-to-date and useful technology that complements even the most traditional instruction. In addition, OFE provided an opportunity for me to participate as a faculty fellow. The objective of a fellow is to expand the offerings of the office to the faculty in a very specific way. I was able to provide sessions and workshops on qualitative analysis, including What is the Qualitative Paradigm and How do I Design a Qualitative Study?; Interviews, Observation, & Case Studies; and Analyzing Qualitative Data & Publishing in a Quantitative World. Finally, I was able to chair a new tenure-seeking faculty organization and create activities that would be worthwhile to new faculty. The major item that was accomplished this term was organizing small focus groups to identify key questions for a university promotion and tenure panel. The panel included deans of every college, the past and present university promotion and tenure chairperson as well as the vice president of academic affairs and the president of the faculty association. This event was well attended and worthwhile. Overall, I believe that the OFE operates in a multifunctional role and is critical in my professional development in teaching, learning, technology and scholarship.

■ KEY CONCEPT III: SERVICE ORIENTATION

The third strength of the CIRT lab in its academic environment has been an unflinching attention to customer service. Just as if it were a commercial business on the street corner, our center must have repeat customers, good word of mouth, and good evaluations from professors to survive. The worst thing a laboratory like CIRT can do is to turn a professor away without even a partial solution to a problem. Any time we do not have a ready answer, it is important that we ask a lot of questions, research the technology, and get back to an individual with some kind of information or at least a creative suggestion. For example, in a case where the professor may ask to create a 3-D simulation, it is important to know what they are trying to accomplish with this tool and why. Technologies of this type —where they are possible to execute —require a huge investment of time and effort. Often, professors are happy to compromise or adapt material in order to achieve a goal quickly.

While engaging in this type of research for the sake of customer service, staff members in CIRT often engage in new areas of technology and learn to ask new kinds of questions. One foray that we make into how to create virtual reality panoramas can lead to our immersion in new kinds of linked panoramas, spherical or multi-tier panoramas, webpage enhancements, object panoramas, new kinds of camera and tripod hardware, and a whole host of benefits. When time and budget allows, exploration for the sake of faculty service can have multiple payoffs later on. The primary payoff is a highly trained staff but even better, is the ability of the staff to meet a range of needs and specific needs.

One downside of a highly-tuned service orientation is that faculty members quickly catch on that we are concerned about their overall level of satisfaction and sometimes work this aspect of the relationship to their full advantage. Not only will faculty

sometimes suffer from the “learned helplessness” syndrome but they also like to play games to get us to bend our policies and act as if we are a drop-off production facility, a thing we have been instructed not to do by administration. If we “gently” make faculty aware that they are trying to bend our rules, sometimes a little bending and a lot of patience can lead to improvement over time. Gary was a professor who at first insisted that we do computer tasks for him. After many visits when he got the Blackboard distance-learning environment under his belt, he not only did some online course development but also branched out into some new areas and became ready to try out the Windows PC environment after having been a Mac user.

As a staff member in a highly-tuned customer service environment, one has to make smart decisions about when is the right time to take over and “just let me take care of that” versus giving the faculty member a gentle prod to try it themselves. Keeping a good-natured, social environment and an encouraging this type of environment makes it all work. The encouragement needs to be measured out over time in what we call “subtle persistence.”

Service Orientation Through the Looking Glass of a Faculty Member in Foreign Language Studies

Let me preface this short assessment of the CIRT lab by saying that before my regular use of the lab I was practically computer illiterate. I basically only knew how to do word processing. My interaction in the CIRT lab has been possibly one of the most positive experiences I have had at UNF. One of the aspects that most enhances the lab is the availability of its staff to service faculty whenever we walk in, even without a previous appointment. The fact that the lab has three outstanding staff members who are adept at most any software or applications one is using makes the lab tremendously convenient. The nice part is that if one staff member is more adept at certain tasks, or if we feel more comfortable working with any of the three, we have our choice. And beyond this availability, faculty can make appointments for long projects, like working with video.

I have used the lab in multiple tasks: the use of Blackboard; the elaboration of my personal Web site and a programmatic one, which entailed sophisticated uses of images, of movement and a certain degree of interactivity; and the elaboration of pamphlets to be used for programmatic purposes. In every instance, be it through direct tutoring, or guided instructional help while doing these tasks, my almost everyday visits to the lab, whenever my research or my teaching permitted, the lab members were available to help me.

I have worked at other institutions, even Research I-level universities, and I have never had the technical accessibility and support I have had with CIRT.

■ KEY CONCEPT IV: SUBTLE PERSISTENCE

Faculty who are excited about technology can be the most challenging people to work with, and many of them have good depth of knowledge in a specific set of tools but lack the breadth of knowledge to see all the different technological tools to solve their current problem. Hence they don't always choose the best tool for the job. The job of the CIRT team member can range from being an instructor or guide to explaining processes or discussing methods and concepts. Often faculty members are confident, have already chosen a course of action, and are not easily dissuaded from that course. Sometimes the CIRT team member can guide the faculty member in the right direction by discussing the reasons why it's better to go a different route. More often the CIRT team member will have to be persistent not only explaining why a certain technology is more effective, but also recreating part of the project and showing the difference in results. Even after showing examples the faculty member may reply with “I don't have time to learn that now” or “This project is too important to risk doing it that way.” The most effective response to these statements is usually to persevere and work through the process with them so the professor can see the benefits —e.g. that worthwhile new tools actually save time. In most cases if the CIRT team member is persistent and takes the time to explain all the reasons why the faculty member should use one technology over another, and shows the difference in the outcomes, that faculty member will not only use the suggested technology but will also grow to appreciate the benefits and become a supporter of it.

While discussing CIRT with a faculty he made the comment “Well, there is no reward if there's no interest. I come here to learn about Photoshop and iDVD because I'm personally interested in photography and video”. He went on to explain that

his chair actually discouraged doing things that weren't scholarship, service, or research. He came to CIRT not because it was part of his professional development, but because he found it personally rewarding. We have to be persistent in trying to correct the misconception, at all levels, that new technologies are not just 'hobbies' but that they are pedagogical tools that can be applied toward scholarship, service, and research, while still being personally rewarding.

Subtle Persistence Through the Looking Glass of a Faculty Member in Education

The subtle persistence of the OFE/CIRT team has benefited my students, my colleagues and myself. I enjoy learning new technologies, but when a new or different "brand" is thrust upon me, I cringe. I question whether I should stick with my "tried and true" software, or learn how to use yet more new product. It required considerable time for me to learn the technical skills to use electronic communication tools; eg; Nicenet, WebCT, BlackBoard, and certain company dedicated tools (for example Element-K's tools). But in order to compare the advantages and disadvantages of the features of various "brands," I believe it was important to learn the skills required for each tool. Then I needed to use the different features for several courses over a period of several years in order to determine the best tool for facilitating students' learning. The OFE/CIRT team worked closely to share the resources with my students and subsequently myself as well as sought feedback from me.

Another observation I would like to make is that the team seems to know at what pace its clients should progress. For example, I was totally engrossed in converting videotapes to digital form and editing those clips. The team continually helped me with the "simplest" software-editing program. They encouraged me to learn to use more advanced and more capable software. I accepted their offer for help but then became "bogged down" with family care giving responsibilities that prohibited for the purpose of making decisions about future support of the University. I believe the team doggedly pursues their investigation of best products for administrators, faculty, and students by constantly encouraging faculty and staff to use a variety of technological approaches, training and advising faculty and staff, and keeping their own skills current. In fact, concerning the latter, the team is quick to learn new skills when faculty inquire about newly developed applications me from doing any technology applications for over six months. When I returned for help, the team helped me "start all over" and knew I needed gentle persuasion to begin anew. They kindly supported and nudged me to renew my enthusiasm for technology applications appropriate for my discipline. I had thought I would have to drop my technology applications, but thanks to the subtle persistence of the team, I was able to "get back in the saddle" again!

■ CONCLUSION: ISSUES, TRENDS AND PREDICTIONS

The OFE/CIRT formula for social success in the academic environment alone is probably insufficient to secure its long-term future. The office must also develop innovative methods to track the progress of its faculty members and highlight important projects and developments. While a training center would be expected to use testing as the primary means of measuring progress, the office, given its "consultancy" style, may need a more well-rounded mix of qualitative and quantitative measures lending itself toward authentic assessment. For example, highly beneficial to our office would be extensive faculty interviews, focus groups, and a progress report that resembles a portfolio or dossier-type of accumulated evidence.

In the future, the lab will also need to develop a "precision" model that targets instruction just at and slightly above the level of members of its varied faculty audience. Afterwards, the lab could also benefit from more elaborate follow-up procedures with individual faculty members where their progress and successes are not only recorded in the university environment but also *rewarded*. Although we anticipate a growth of faculty and subsequent need of our services, we anticipate simply expanding our current model. As we continue to gather data, even potential subjective data or naturalistic appears to be of importance as we attempt to ride the biorhythm wave of teaching schedules coupled with the climate of a dynamic, growing university.

Finally, preparing this document not only offered a nice venue to share our experiences as well as our clients through the looking glass, but an unexpected outcome was the discussions that presented themselves during our writing meetings. Although we have regular staff meetings, this paper enabled our group to discuss past experiences, troubleshoot current ones and plan for the future in an authentic approach. At times, meetings and committees present an artificial context for highly contextual

dilemmas. While writing, we were reminded of our past, our mission and were better able to set forth a workable, viable vision for our future. The serendipitous outcomes empowered our team to alternate approaches of success, just as we observe our faculty members succeed in their incidental discovery of useful, meaningful and even enjoyable approaches to integrating technology into their classrooms.

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■ **BIOGRAPHICAL SKETCH**

Dr. Jace Hargis is an assistant professor at the University of North Florida in Jacksonville, teaching science and technology courses. In addition, he teaches on-line at the University of San Diego and develops online curriculum for Taylor Universities distance learning program. Recently, Dr. Hargis has been selected as the and Director of the Office of Faculty Enhancement at UNF promoting sound pedagogy through workshops, organization of informal discussion groups, support of technological applications, and information dissemination.

Deborah Miller worked in the Duval County public school system as a classroom and resource teacher for seven years before coming to CIRT in March of 2001. Deborah received her BAE in 1994 and her M.Ed. with a Specialization in Instructional Technology in 1999, both from UNF. Her interests include media streaming and the creation of learning objects for education and training purposes. She also enjoys creating websites and spending time with her family.

Dave Wilson graduated from UNF with a B.A. in Graphic Design and a minor in Information Science. In the past he has worked for the UNF Library at the reference desk and for the UNF Faculty Association as the webmaster. Dave has been with CIRT since August of 2000, and he enjoys Central American History, digital photography, Adobe Photoshop software for image manipulation, and illustration.