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ABSTRACT

As higher education rushes to embrace information technology, many vitally important instructional technology services are often left underfunded, directed by a paraprofessional, and operating at peripheral status outside academic affairs. Instructional technology should be understood not just in terms of computer hardware and software but in terms of human skills, resource management, problem solving, and educational settings. Information technology is not often instructional technology, but it can be if it is brought to bear on the processes of teaching and learning. Important goals of instructional technology services include instructional development, learning resources, classroom technologies, media development, instructional telecommunications, academic computing, and research and evaluation. Administrators should address the issue of making these services a more central part of the institution's organizational structure, perhaps even by putting them in academic affairs. The inadequate qualifications of a large percentage of applicants for instructional technology jobs should also be cause for concern. (BEW)

Evolving Relationships Between Campus Media and Information Systems and Services

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While the other members of this panel will describe specific success stories with media service units on their own respective campuses, my role here is to describe in more general terms how media centers relate to the broader concept of instructional technology, and how both relate to this even more global entity called information technology. I am very concerned that as higher education rushes to embrace information technology and merge technology-related service units in the interests of efficiency, many vitally important *instructional* technology services are being eliminated or never given the chance to develop, and as a result colleges and universities are missing some terrific opportunities to improve their academic programs.

What IS Instructional Technology, Anyway?

This is a very important question, because many persons in academe do not seem to understand what instructional technology is or what role it can play in instructional improvement. Strengthening undergraduate education is central to almost every university's strategic plan, yet the one service unit with the most to offer toward achieving that goal is often grossly underfunded and directed by a paraprofessional, given a peripheral status, and all too often administratively located outside Academic Affairs entirely.

What is instructional technology? Definitions published over the years help us to understand what a broad field it is. The most recent was issued last year by the Association for Educational Communications and Technology (AECT), which bills itself as the only international professional association dedicated to the improvement of instruction through the utilization of media and technology.

> *Instructional Technology is the theory and practice of design, development, utilization, management and evaluation of processes and resources for learning.* (Seels & Richey, 1994)

This definition has received some criticism on the Internet because some feel it is *too* broad. I feel, however, that it was AECT's intent to publish a broad definition, because instructional technology truly supports virtually every aspect of teaching and learning. The 1994 definition replaced one published by the Association in 1977:

> *Educational technology is a complex, integrated process involving people, procedures, ideas, devices and organization, for analyzing problems and devising, implementing, evaluating and managing solutions to those problems involved in all aspects of human learning.* (AECT, 1977)

Actually, I like every single phrase here.

> *...a complex, integrated process...*
>
> *...involving people, procedures, ideas, devices, and organization...*
>
> *...for analyzing problems...*
>
> *...and devising, implementing, evaluating, and managing solutions to those problems...*
>
> *... involved in all aspects of human learning.*

This does not sound like the mission statement of the typical college media center, does it? Yet, according to AECT, this is the essence of what an instructional technology-based service unit ought to be doing. I have used this definition on a number of occasions in my own media centers to justify new services that varied in the minds of my administrators from their stereotypes of us as "audio-visual" units.

AECT's 1977 definition evolved from one published seven years earlier by Ken Silber. Silber chaired the AECT committee that developed the 1977 definition, and his influence on the committee, and on the profession, was profound.

> *Instructional Technology is the Development (Research, Design, Production, Evaluation, Support-Supply, Utilization) of*

> *Instructional Systems Components (Messages, People, Materials, Devices, Techniques, Settings) and the Management of that development (Organization, Personnel) in a systematic manner with the goal of solving educational problems.* (Silber, 1970)

This definition is particularly useful because it identifies the components of an instructional system and by extension, the basic concerns of instructional technology -- messages, people, materials, devices, techniques, and settings. The instructional technology support functions of every college and university, be they in the media center, the library, the computing center or wherever, need to address and support the full range of these concerns, because they exist in every single course offered by the institution. We're talking here not only about equipment and learning materials but also faculty teaching skills, course and lesson development, and instructional problem-solving as well as basic environmental conditions in classrooms that affect teaching and learning. Obviously, few of our centers are equipped and staffed to provide even the most fragmentary of services in these areas.

Also in 1970, a Commission on Instructional Technology appointed by President Nixon developed its own definition and compiled an impressive two-volume set of papers that profiled the state of the profession. This was a high level Commission, chaired by Sterling McMurren, Dean of the Graduate College at the University of Utah, and consisting of some of the most prominent educators and public servants of the time. The Commission offered two definitions of instructional technology. The first addressed the traditional concept of media:

> *In the more familiar sense it means that media born of the communications revolution which can be used for instructional purposes alongside of the teacher, textbook and blackboard.....* (Tickton, 1970)

The second portrayed instructional technology in an entirely different light:

> *Instructional technology is a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication and employing a combination of human and non-human resources to bring about more effective instruction.* (Tickton, 1970)

The Commission's second definition represented the "systems approach" to instruction and was manifested in the practice of instructional development. In fact, instructional development and faculty development as services and fields of study both emerged in the late 1960s and early 70s, for different reasons, but they were closely related. Both provided processes that led to instructional improvement; one focused on the course itself, the other on the faculty member teaching the course.

You have to appreciate how far our profession came during the decade of the 1960s. At the beginning of the decade, we were "audio-visual" specialists, charged primarily with making sure projectors were delivered to classrooms on time with working lamps. We were the original bunch that didn't get much respect. However, by 1970 we were instructional technologists with a profession based on theories of learning and communication and a mission that extended far beyond products to embrace processes as well. It was a remarkable transformation.

Instructional technology is thus much more than computers, projectors, VCRs and monitors, videotapes and films, cart-pushing, thermofax transparencies, filmstrips, and all those other artifacts of the 1950s and 60s by which so many still seem to stereotype us. Instructional technology is concerned with services such as

- Improving environmental conditions in classrooms
- Helping faculty integrate technology into their teaching
- Providing support to faculty who develop their own materials
- Solving instructional problems unrelated to "media"
- Training faculty to teach in a distance education environment
- Retrofitting a classroom to install a data projection system
- Using PowerPoint to design a set of graphic slides for a class
- Presenting a workshop on facilitating classroom interaction

Differentiating Instructional Technology from Information Technology

Information technology is a much broader concept than instructional technology. A friend of mine once defined information technology as "technologies used to support the processing, storage, retrieval, transfer, and communication of information" (Lassner, 1991). In higher education, information technology appears as such diverse

entities as the library OPAC and the Reference Room LAN, the campus voice/data network, administrative data processing, number crunching for research projects, and a professor's access to the Internet.

When information technology is brought to bear on the processes of teaching and learning, it *is* instructional technology, but the vast majority of information technology is *not* instructional technology. Conversely, instructional technology activities, such as those listed two paragraphs above, for the most part may be considered information technology only under the broadest definition of the term. Instructional technologists are a class of professionals whose training and experience is focused almost entirely upon supporting and enhancing the institution's academic mission. Few of those in the information technology arena have formal training in instructional technology, and if information technology units (I'm thinking primarily of computing centers here) truly have a commitment to the broad range of service areas implied above, why haven't we seen it during the past 25 years? The reason is that they do not consider these functions their turf, and they are right.

The Seven Functional Areas of Instructional Technology in Higher Education

Let me be a little more specific about what those service areas include. In 1987, I was appointed chair of the Postsecondary Standards Committee of the Association for Educational Communications and Technology. As a committee, we felt it was very important to identify the specific types of contemporary instructional support functions for which standards should be developed. (Parenthetically, let me point out that if you go looking for these standards, you will not find them. Because of political pressures, the Association ultimately published an earlier draft of the standards that represented a more traditional view of media services.)

To collect the information it needed, the committee identified 70 centers at four-year colleges and universities in the U.S. that had names that we felt represented something beyond typical equipment and production services. These units had names such as "Center for Instructional Support" and "Teaching and Learning Center," as opposed to "Media Center" or "Audio-Visual Center." We then wrote to each center and asked for flyers, annual reports, or any other printed material that described the unit's functions.

We found that the services provided fell into seven general functional areas. These were by no means *discrete* categories, but they do describe seven general types of support services that are found in American higher education. Collectively, the seven areas form a model we called Integrated Instructional Technology Services (IITS) (Albright, 1989).

Instructional Development. Instructional development is central to an institution's academic support program because it cuts right to the heart of the teaching and learning process. If you look at a basic model for instructional development -- determining course goals and objectives, analyzing student characteristics, selecting learning activities, writing and administering measures of student achievement, conducting course evaluations, and so forth -- it becomes apparent that all faculty members are instructional developers, because they all have to do these things as they teach their courses. However, as we all know, most professors are subject matter experts with little formal training in college teaching methodology. In my biased view as an instructional developer, helping the faculty improve their teaching skills and solve instructional problems may be the most important thing we do because of its potential impact across the curriculum.

Instructional development services may be classified into four general types (Albright, 1988). At the *Course Level*, the focus of an activity is on an entire course or some component of a course. The activity may be creating a new course or renovating an old one, or it may be as simple as developing a single learning activity to solve a pesky instructional problem or brainstorming an alternative form of student assessment.

At the *Faculty Level*, an activity is aimed at improving the teaching skills of a faculty member. Functions such as seminars and workshops, newsletters, ID grant programs, and individual consultations are often provided by faculty development centers. Faculty development, though, is a broader concept that includes topics like promotion and tenure preparation, grantsmanship training, and faculty career counseling, that have little to do with the classroom. If an activity is designed to improve some aspect of teaching and learning, it may be called faculty development, but in reality it is instructional development.

Media Development Level ID applies instructional development methodology during the production of videotapes, graphics, multimedia, workbooks, and other types of learning materials. At the *Media Utilization Level*, activities are focused upon helping faculty integrate technology effectively into their teaching, with faculty training perhaps the number one responsibility. This is a hot topic right now. Over the past year or two, I have seen numerous position announcements in the *Chronicle of Higher Education* for persons to perform Media Utilization ID functions. Instructional technologists are uniquely qualified to provide faculty training in areas such as multimedia development and use, and teaching effectively in a distance education environment.

Learning Resources. On many campuses, the Learning Resources Center is a multi-function unit that includes the library, the media center, and perhaps academic computing and other support services. We use the term here in a more narrow sense to describe "non-print" media services -- the film/videotape collection; records, tapes, CDs, and other sound recordings; an independent learning lab; a media reserve system; and perhaps a film/video locator and rental service. These are longstanding academic library services, and the ACRL standards for college and university libraries has specified them for years.

Classroom Technologies. Classroom Technologies represents services that are most commonly associated with campus media centers, including operation of a centralized equipment pool and placement and maintenance of instructional equipment in classrooms. However, instructional technology extends to virtually every aspect of the classroom that affects teaching and learning. Many architects of academic facilities appear to know little about appropriate classroom design, so instructional technologists should be present on planning committees for new construction and renovation of classroom buildings, to ensure that such factors as dimmable lighting, proper room orientation, and power and video/data conduits to the ceiling (for ceiling-mounted projectors) are accounted for in the building plans.

Instructional technology units should take an advocacy role on behalf of the faculty regarding classroom conditions. Some media centers staff campus hot lines for reporting of problem areas. Master planning for classroom upgrades and the retrofitting of selected classrooms for multimedia use are also Classroom Technologies functions. In my view, while the information technology unit is responsible for campus networking and providing data resources, the instructional technologist's turf begins at the classroom wall.

Media Development. The production of professional, custom-made videotapes and graphics to meet specific faculty needs has long been an instructional technology function. For example, the Media Resources Center at Iowa State University annually completes between 50 and 100 videotape development projects per year for academic uses. Many campus media units are now offering a full range of multimedia development services, including faculty training, as noted above. Another important emerging Media Development area is supporting faculty who create their own multimedia products. Sophisticated camcorders, computers, and authoring software have become so inexpensive and easy to use that many faculty are able to develop their own teaching materials on their desktops. However, they often need training, and support can also be provided in such areas as videotaping, editing, and graphics development beyond their own capabilities.

Instructional Telecommunications. Instructional telecommunications services as identified by the committee refers to the distance education support function. The two most prominent activities here are designing, installing, and maintaining teleteaching classrooms, and training faculty and staff not only in using these facilities but also in planning courses and teaching effectively in a distance education environment. The latter is critically important. Instructional technologists are best qualified to train distance educators in such areas as understanding the unique characteristics of adult students, designing course activities to promote interactivity and active learning, evaluating off-campus students effectively, using the Internet in a distance education setting, and providing support services to students. Faculty need to know these things before they teach on a distance education system.

The Instructional Telecommunications function also works in collaboration with Media Development to produce courseware for distance education courses. Other activities may include managing the campus interface with off-campus delivery systems such as local TV cable systems and statewide networks, and providing satellite uplinking and downlinking services.

Academic Computing. Academic Computing has always been hard for me to define because of the difficulty in distinguishing where it ends and where non-academic computing begins. Use of the Internet is a good example. Using campus data resources in a research project involving student assistants is another. Academic Computing certainly

includes the operation and maintenance of computing labs used by students, extending and maintaining the campus data network to classrooms, development and/or adaptation of computer-based learning materials (also a Media Development function), and perhaps most important, training faculty to use computing resources effectively for academic purposes (a Media Utilization Level ID function). Training faculty in academic use of the Internet is particularly important.

Research and Evaluation. This is an area not often associated with instructional technology, but all these activities involve various elements of instructional development methodology and are focused upon instructional improvement. Research and Evaluation functions include instructor and course evaluation services, test-scoring and interpretation services, maintenance of a test item bank, conducting or assisting faculty in conducting research on teaching and learning (particularly that entity known as "classroom research"), and program evaluation services related to academic programs.

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These, then, are the major forms in which instructional technology services appear in American higher education. We must get across the idea to administrators that these service areas are not frills. These are entitlements of everyone who teaches at the college and university level. We are talking here about the basic tools of the trade for the teaching profession. Instructional technology is as important to college teachers as are computers to travel agents and scientific calculators to engineers. Somewhere, each of these seven functional areas needs to be accounted for, and supported, in the institution's organizational structure. The only exception might be Instructional Telecommunications, since distance education is not important in the mission of some colleges.

Do the seven functional areas need to be tied together under the same administrative umbrella? Below the level of Academic Affairs, probably not, as long as the units providing these services talk to one another and collaborate in such areas as programming and purchasing. Of the 70 institutions the AECT committee surveyed, no more than five of these functional areas were found in any single campus unit. However, I am firmly convinced that each of these areas should have a professional instructional technologist in charge to provide maximum service for the funds available, and for efficiency purposes the number of units probably ought to be minimized.

Where Does Instructional Technology Fit in the Institution's Organizational Structure?

No simple answer exists for this question. In late 1990, I conducted a national survey of college and university media center directors (Albright, 1991). The subject institutions were selected on a systematic, stratified basis, and I feel the results are generalizable. One item specifically asked respondents to identify the reporting senior by title. The results were remarkably consistent across the three Carnegie classifications used as blocking variables -- Doctorate-Granting, Comprehensive, and Liberal Arts -- as well as for both private and public institutions. About 40 percent reported to the library director or subordinate in the library. Around 34 percent reported directly to the chief academic officer or a subordinate in that office. The remaining 26 percent were scattered all across academe.

We found media centers reporting to the physical plant director, the manager of the campus FM radio station, the public relations officer and the budget director, as well as to academic department heads. Only about three percent reported to the chief information officer or head of computing services, a percentage that surely has risen since 1990. We scratched our heads over some of these reporting relationships and concluded that many of these assignments were made for administrative convenience rather than conscientious attempts to better serve faculty and students.

For several years after the IITS model came along, I felt that the only appropriate administrative organization for instructional technology service units was directly subordinate to the chief academic officer. That is the individual who has *the most accountability for the quality of the academic programs we support* and therefore should have the strongest *vested interest* and the most to gain by having an effective, responsive instructional technology support structure in place. After all, a strong IT support presence allows the *other* units reporting to the chief academic officer do *their* jobs better (e.g., teaching). We cannot say that about any other potential reporting relationship.

Deep in my heart, I still feel that instructional technology support units ought to be in Academic Affairs. However, I've modified my thinking somewhat. As my former colleague Marie Wunsch (1992) pointed out, many chief academic officers entered academe during the "audiovisual" era of the 1960s, may never have used anything more

sophisticated than an overhead or slide projector, and therefore may never have developed any interest in or commitment to the range of services we provide. During the retrenchment of the 1980s and early 90s, media centers reporting to VPAAs were just as likely to get jettisoned as those reporting to library directors or other administrators.

Now I feel that instructional technology support services belong under the administrator who wants them the most and is willing to support them and serve as their advocate at the highest levels of the administration. The risk, of course, is that that individual could leave for greener pastures and be replaced by someone with different priorities, but we certainly could find that situation with the chief academic officer as well.

An Interesting, and at the Same Time Disturbing, Trend

I am the administrator of a Gopher database that contains the country's largest job bank for instructional technology positions. For the past year, I've been downloading (with their permission) relevant job ads from the *Chronicle of Higher Education* each week. I've seen a very interesting trend. Instructional technology is "in." I've never seen so many good position announcements in this field as I have in the past couple of years. Many of them are for instructional developers, faculty developers, or multimedia developers, or some combination thereof, but I've also seen probably 20-30 at a much higher echelon, as Director of Instructional Technology or some such title, with responsibility for most of the IITS functions.

Unfortunately, these opportunities are exposing one of the major weaknesses of our profession, namely our inability to provide an adequate talent pool of qualified applicants. Last fall, for example, a campus in the California State University system advertised for a Director, Center for Academic Innovation, literally to lead the institution into the 21st century regarding instructional technology. The position was originally conceived as a vice-presidency, was strongly advocated by the president, and carried a generous salary. The university received just 22 applications, most of which came from persons who were totally unqualified. The search committee ultimately rejected all 22 and hired a person who had served as a consultant for the search.

That individual's position as Dean of Instructional Technology and Computing at another CSU system institution then came open and

was advertised. The university received only 15 applications by the deadline, extended the search, and ultimately received 28, of which just 12 came from applicants who met the ***minimum*** qualifications.

I am very concerned by response, or lack of response, such as this. What do the administrators and search committee chairs at these institutions think about us as a profession, if this is the best we can do? Our survey of 1990 provided some interesting evidence to help explain these circumstances. *Nearly half* the responding media center directors -- 48 percent -- did not hold so much as a master's degree in instructional technology or a closely related field, considered the minimal academic qualification to *enter the profession*, let alone take responsibility for a campus's instructional support services. Just 7 percent held Ph.D.s in instructional technology or closely related fields. Twenty-seven percent of the respondents held *no* memberships in professional associations, and an additional 24 percent belonged to just one. Nearly 20 percent held their positions on a part-time basis, with half of these spending less than half their time in the center.

Fewer than 35 percent held faculty rank, with about half of these by virtue of their status as professional library staff members. When compared with national AAUP faculty salary figures, the media directors at Comprehensive and Liberal Arts institutions were compensated at the low end of the pay scale for assistant professors. Many of them obviously were viewed, as Wunsch (1992) described, "as marginal players with minor responsibilities, dubious academic credentials, and work which is peripheral to the mainstream of academic priorities."

I do not consider the individuals who provided these data to be the ones at fault here. The real culprits are the administrators who wrote their job descriptions and position announcements and the search committees whose standards were so low that they hired marginally qualified persons to manage important instructional support functions. Coupled with the minimal funding for instructional technology on many campuses and the general lack of administrative interest in involving professional instructional technologists in campuswide instructional improvement efforts, it is no wonder the talent pool for these new positions just isn't there. As a profession, we've never been given the opportunity to develop the kind of broadbased skills and leadership experience that search committees now feel are important.

Two personal experiences help to illustrate this point. During the past six years, I interviewed for two campus media center director

positions administratively located in library/learning resources center environments at prominent state universities, in one case the flagship university of the state system. Each center was a comprehensive unit providing campuswide services in at least four of the seven IITS functional areas. At the first, when I inquired about moving expenses, the associate dean looked down over her glasses and replied in a rather condescending tone, "Oh, well, that level of position doesn't normally rate any moving expenses..." At the second, the library director told me very clearly over breakfast that the library got first priority for funding, and if anything was left over the media center could ask for it. These mindsets, which do not seem to represent isolated cases, are a prominent reason why instructional technology is so far from reaching its potential in higher education.

References

Albright, M.J. (1988). *Cooperation among campus agencies involved in instructional improvement.* In E.C. Wadsworth (Ed.), **Professional and organizational development in higher education: A handbook for new practitioners.** Stillwater, OK: New Forums Press.

Albright, M.J. (1989). *It's time to rethink instructional technology services in higher education.* **TechTrends, 34**(5), 40-45.

Albright, M.J. (1991). *A profile of the profession as we enter the last decade of the century.* Keynote presentation at the annual spring conference of the Consortium of College and University Media Centers, Philadelphia, May 1991.

Association for Educational Communications and Technology. (1977). **The definition of educational technology.** Washington, D.C.: Author.

Lassner, D.L. (1991). Personal communication, August 4, 1991.

Seels, B.B, and R.C. Richey. (1994). **Instructional technology: The definition and domains of the field.** Washington, D.C.: Association for Educational Communications and Technology.

Silber, K.H. (1970). What field are we in, anyhow? **Audiovisual Instruction, 15**(5), 21-24.

Tickton, S.G. (1970). **To improve learning: An evaluation of instructional technology.** New York: R.R. Bowker Company.

Wunsch, M.A. (1992). *Killing the old myths: Positioning an instructional technology center for a new era in higher education.* **TechTrends,** 37(6), 17-21.