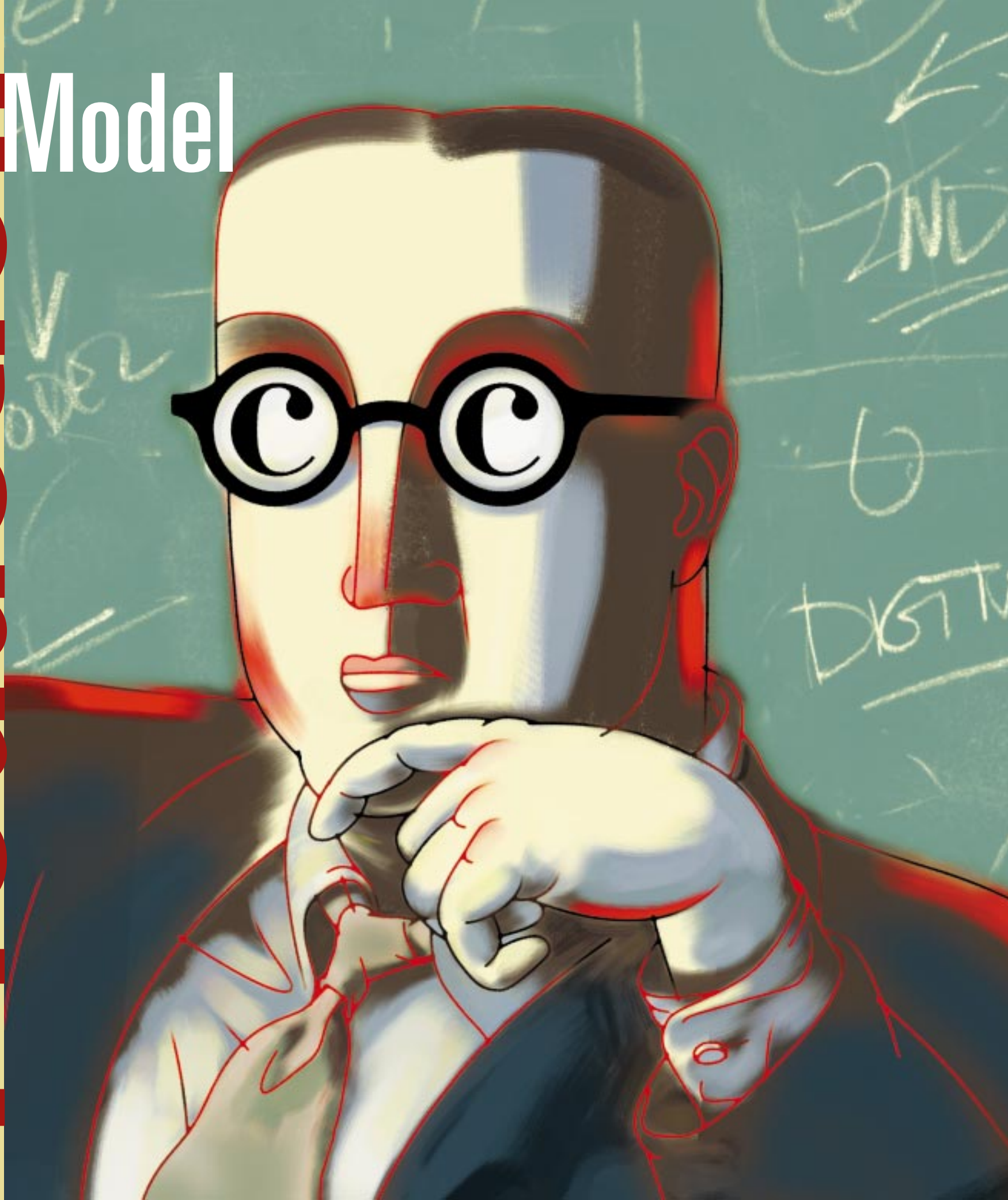


By Sarah Stein

Production

Steve McCracken



An Alternative Approach to Intellectual Property Rights in Distributed Education

The changing landscape of higher education raises the question of survival—not survival of the traditional college or university per se but survival of excellence. We in academia are faced with a daunting challenge. College and university administrators are confronting both budget limitations and student enrollment increases. One method of meeting these contradictory demands is through distributed learning, and many campuses are funding adventurous faculty members' efforts in distributed learning pilot courses. Yet as faculty members continue to be encouraged to incorporate new learning technologies into teaching—both on campus in conventional classrooms and online—demands for the technical training needed to do so will increase. Unfortunately, the technical personnel who are critical to the integration of the new learning technologies are leaving higher education for much better salaries and bonuses in the commercial sector.

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The problem for many of the more innovative technical staff is that the creative work is often simply added on to their routine responsibilities, increasing their workload while offering them no further compensation in terms of either money or recognition. The problem for many faculty members at traditional institutions is that they have not yet awakened to the fact that their ability to perform their roles as teachers is going to be tied increasingly to the quality and availability of technical support. And the problem for administrators is that they have not yet fully grasped what will be needed, in terms of human and electronic resources, to create distributed education offerings that are competitive with those offered by commercial vendors, whose financial resources are vastly greater.

We thus must answer two paramount questions:

1. What will it take to keep innovative, creative technical staff at higher education institutions that cannot hope to compete with corporate compensation packages?
2. How can more faculty members be encouraged to invest their time and efforts in distributed education, on and off campus?

AN ALTERNATIVE APPROACH

Answers to both of these questions can be found by devising an alternative approach to intellectual property ownership and compensation issues in higher education. For technical staff, higher education offers the opportunity to work in an intellectually stimulating atmosphere, one combining public service with challenges that invite “out of the box” solutions. That opportunity is, however, in danger of losing its magnetism when institutions fail to acknowledge the value of such work in ways that offset the allures of the corporate world. Equally important, creative faculty members will not likely be eager to explore the new learning technologies if they are not assured that the intensive time and labor involved will be rewarded appropriately—both in terms of control of copyright and in terms of promotion and tenure.

We thus need an alternative approach to intellectual property ownership and compensation—one that will slow the departure of creative technical professionals from campuses, encourage more faculty members to explore distributed learning, and offer a model for copyright negotiations between educational institutions and their faculty and staff who develop these new course materials.¹ At this early stage, when many of the distributed education courses are relatively simple to mount with available course-management software and routine levels of technical support, faculty generally retain copyright and receive any revenues generated. It seems inevitable, however, that a time will come when the investment of resources by the college or university will be much greater than anything required at this initial juncture, and when the notion that faculty should retain all rights and receive all revenues may be contested. Indeed many colleges and universities around the country are already grappling with the intellectual property issues, as evidenced by recent policy statements addressing how the faculty and the institution will assign copyright.² Thus far, the policies released for public purview continue to grant copyright for course materials to faculty members *except* when the college or university has made a “substantial” or “exceptional” (terms that remain undefined) investment in the development of those materials. In the latter case, the institution claims ownership.

Yet the majority of these policies are based on curriculum-development models that do not reflect the fundamental changes that have occurred in the online and technology-enhanced courses. Although distance education has been in existence for a considerable length of time—beginning in the last century with correspondence schools—a special case has to be made for computer-based course development providing technological enhancement both in traditional classrooms and in online instruction. The time and effort involved in translating academic disciplines into these new instructional frameworks is unparalleled in other forms of distributed education, such as videotaped

courses. The hardware and software demand some level of mastery, even with the involvement of expert technical support. Pedagogical practices need to be rethought and new communicative frameworks established when the face-to-face exchange with students is lost.

In both the development stages and the instructional stage, new educational technologies require skills substantially outside the training of most academics. The presence in higher education of specialized computer applications, the Internet, and the Web is evident in arenas such as the growing use of online databases, the inclusion of multimedia elements in course content, and the employment of electronic communication channels in both traditional and online classroom settings. Course design now offers the possibility of engaging learners in diverse instructional modes, utilizing increasingly sophisticated visual and audio formats to supplement oral instruction and printed texts.

The fundamental change, therefore, is that the majority of academics can no longer develop, by themselves, courses that fully integrate the possibilities of the new educational technologies. An increasingly wide range of knowledge and skills is required in the use of new hardware and constantly changing software, including constructing and designing Web pages, importing streaming video and audio, producing and manipulating photographic images and graphics, hypertext linking of sequential pages and other Web sites, and providing adequate navigational tools. Even with many of the new online course-management packages, the need for extensive training and consultation—especially in translating and amplifying pedagogical aims—is imperative. A team approach is necessary.

But the academic world, with our traditional emphasis on faculty and our downplaying of staff, has been slow to adopt this approach. In addition, the idea of a team approach raises numerous questions. How do we form a team, retain all of the team components (including faculty expertise, instructional design, graphics design, multimedia, computer implementation and support,

software production, Web implementation and management), and provide all of the team members with incentives to use their expertise and creativity throughout the project? How do we create an award system that fosters enthusiasm for tackling new and difficult challenges in this emerging world of higher education? And how do we put in place compensatory structures (in terms of recognition as well as money) that will encourage talented technical programmers and designers, as well as faculty, to stay in college and university positions rather than leave for high-tech corporate jobs?

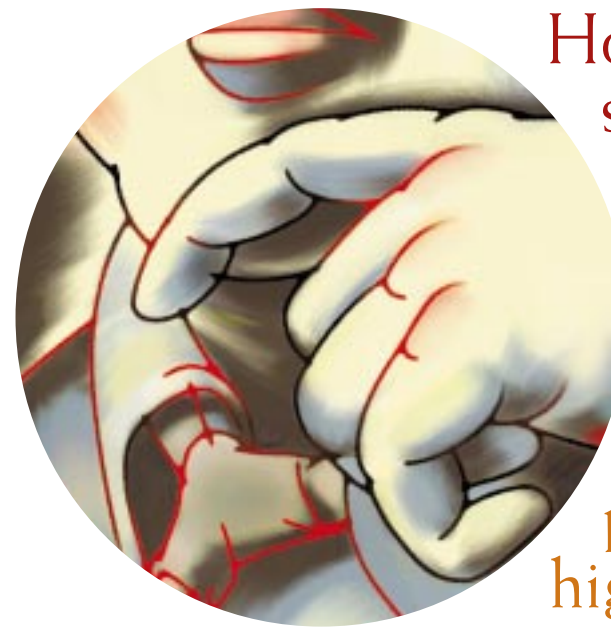
Carol A. Twigg’s recent report for the Pew Learning and Technology Program

results. Without innovative solutions that meet with a consensus of approval from the whole college or university community, higher education will not reach its goal of developing technology-facilitated courses created and delivered by skilled educators to the benefit of learners.

A MODEL FROM AN UNLIKELY SOURCE

Although the notion of “edutainment” evokes an objectionable dumbing-down of teaching and learning, there is a useful parallel to be drawn between the entertainment world and higher education. Producing motion pictures and developing computer-based

industry—encompassing both film and television—has had to create models in which large numbers of personnel, at very different levels of creative input, can be compensated for their work. Producers, writers, and directors of theatrical and broadcast media all receive contracted levels of compensation for their contributions. The assistant directors, grips, lighting directors, sound recordists, production designers, costume and makeup stylists, editors, and re-recording mixers (to name a few), who compose production and post-production crews, are rewarded at different levels as well. Thus the motion picture industry’s template for compensation—in terms of both money and



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symposium regarding online course ownership has recommended that faculty members continue to own all course materials they create.³ The team approach agrees in principle but is anticipating future situations in which the financial and creative investments of nonfaculty could undermine the continued suitability of that position. In such situations, this approach advocates a framework for compensation and use of course materials that builds on the notion of a production team. The faculty member should be at the center of the team, but full teamwork—involving creative technical designers and technical specialists—is required for the best

curricula both rely on collaborative interactions between creative and technical teams. As creators of course content, faculty members have much in common with the producers and directors of motion pictures. Likewise, the jobs of instructional technologists, course layout designers, and programmers mirror in many instances the contributions made by the film production crews.

The team approach has been a staple of motion picture production. Anyone who has watched a movie award ceremony is familiar with the long list of acknowledgments that accompany the reception of every award. The media

recognition—can provide higher education with an exemplary model for adaptation.

Motion Picture Compensation: Financial

■ *Points.* The typical system of financial compensation in the motion picture industry relies on the distribution of “points,” percentage points of either the gross or, more often, the net profits of a theatrical release or television show. Points or fractions of points are generally assigned to investors (listed on a budget as “Capital”) and then to members of the creative team in addition to their base wages.

- *Above the Line.* The capital investors appear in budget contracts “above the line,” indicating that they receive percentage points of the film’s profits. Members of the creative team appear in the budget as “above the line” items, but members of the technical team appear “below the line.” “Above the line” includes the producers, the directors, the screenwriters, and the actors. Occasionally, a very highly sought-after cinematographer, film editor, production designer, or composer will be given points and thus appear above the line as well.

- *Below the Line.* “Below the line” personnel are paid wages and do not generally receive points. Technical team members include the camera, lighting, and sound crews, as well as the postproduction team of editors. “Below the line” also includes equipment and supplies, as well as laboratory processing costs.

- *Compensation in Lieu of Wages.* In the case of independent films, which characteristically do not have sufficient funds to pay everyone, wages are deferred. In lieu of pay, “above the line” and also “below the line” personnel receive points. Since very few independent films ever make back their costs, let alone generate profits, this means that people often work on independent productions for a different kind of compensation: for artistic stimulation and challenge, for the opportunity to build a portfolio of work, or for the chance to participate in a system of barter in which personnel work in exchange for a similar arrangement on their own projects. This offers a promising parallel to creative instructional designers and programmers engaged with online course development and will be addressed further below.

- *Sliding Scale/Participation Deal.* Negotiated sliding scales are common in motion picture deals. A team member may accept monetary remuneration at a certain level, and if the picture or program grosses over

a prescribed amount, the team member receives a negotiated percentage of that excess as well.

- *Project Model.* Film production is based on a project model: personnel are involved until their role in the production is completed. Generally, this means that only the directors and the producers stay on the project until or throughout its theatrical release. In television, the notion of a finite project is less applicable to a series, which may run for many years.

Motion Picture Compensation: Credits

- *Theatrical Motion Picture Credits.* Film credits are prescribed in terms of their wording, placement, and length of time on the screen. These terms are integrated into the final film release and do not change. This is analogous to a print publication in academia.

- *Television Series Credits.* Television series use a different model. Producers are often the creators of a series idea and are frequently the original writers of the narratives. A case in point is Steven Bochco, who created the long-running series *Hill Street Blues*, *L.A. Law*, and *NYPD Blue*. Bochco was directly involved with the production of each episode until the series got established; he then left active involvement. However, every time an episode airs, Bochco gets a royalty payment. In addition, each episode runs with a “Created by Steven Bochco” credit, as well as his listing as executive producer. This serves two functions: (1) it permanently connects Bochco’s role to the series he originated, despite his lack of active engagement with continuing production, and (2) it helps ensure that new personnel keep the same quality and tone of the original show. In such a credit structure, it pays for everyone involved to have highly qualified people to keep the series going. This situation is analogous to an academic course that is taught on a continuing basis.

APPLICABILITY TO INTELLECTUAL PROPERTY OWNERSHIP AND COMPENSATION IN ACADEMIA

The Team Approach

The production team approach used in the motion picture industry closely depicts what is entailed in developing courses facilitated by new technologies. Most faculty cannot be, and do not want to be, expert at all the technical skills required for them to create online courses or course supplements. The design elements involved in integrating multimedia and screen layouts into course content demand creative expertise. Many uses of the Web by faculty today involve little more than mounting a course syllabus and reading list identical to the print versions, but as the Web incorporates more sophisticated multimedia and interactive elements—video, audio, and animation, as well as electronic discussion forums and communication channels—students’ expectations will rise accordingly. For-profit corporations are putting huge amounts of time and money into producing highly interactive, media-rich courses. Teams of people are needed to create, deliver, and maintain such courses.

“Above the Line”

The motion picture industry’s division into creative, “above the line” teams and technical, “below the line” personnel and services can be applied to the development of distributed learning courses. In relation to ownership and compensation issues, faculty are in the “above the line” budget category, as is the college/university administration. If the institutional investment significantly exceeds the normal operating budget, the institution would also appear “above the line” in the status of the “investor” by providing the capital and the infrastructure that allowed the production of the material. All of these groups would receive “points,” translated as royalties, from the course development. In some instances, as outlined below, some of the technical personnel may also be compensated “above the line.”

One critical issue raised here concerns the specifics of what is considered to be part of the institution's capital investment. As mentioned above, many intellectual property policies for distributed education are including the caveat that the institution will own courses when it has made a "substantial" (or "exceptional") investment in their production. These undefined terms could pose serious problems for faculty creators of distributed learning materials. The capital investment by the college or university does *not* include the routine infrastructure necessary to the ongoing life of the institution or the faculty training needed for the use of new educational technologies. Faculty training would be included in the category of overhead, and its costs would not factor into royalty allocations designed to reimburse the college or university for its capital investment.

A second critical—and potentially thorny—issue surrounding the question of capital investment by the institution concerns the determination of which

courses are suitable for developing for online distribution. Many institutions are working to establish a systematic way to decide what will be funded for development and what will not. The administration, in collaboration with faculty, may need to formulate criteria that can be agreed upon and applied to that decision-making process, especially if faculty enthusiasm for exploring online teaching and learning environments increases significantly.

"Below the Line"

Technical staff would generally fall into the "below the line" category, receiving set wages for the services they provide. Thus, technical staff work "for hire" in most of the services they offer. However, with course development and revision, some graphic design and specialized technical demands exceed the normal job requirement for technical staff and enter into a new creative arena that requires recognition and reward. In such cases, technical staff would move into

the "above the line" category and, like faculty, would receive some kind of compensation beyond wages.

Parallel between Television Series and Online Courses: Credits

Television series offer the greatest potential as a model for academic compensation issues. Like a series, online courses have an extended lifetime. They may first be taught by the faculty creator and then by someone else. Throughout this time, the courses are usually revised repeatedly, with new material incorporated. The need for ongoing recognition of the scholarship involved in the creation and maintenance of a course could be met with an equivalent to the "Created by" credit in television. Each time a course is offered online, the syllabus would include the originating faculty member's name in addition to the name of the current faculty. This would apply regardless of whether the originating faculty member remains at the institution.

Credit would also be given to everyone else on the "above the line" team. The "below the line" team members would be noted in the "trailing" credits. Giving credit to additional team members does not detract from the credit given to the faculty creators and leaders. It is common practice in research seminar presentations, for example, to include a slide naming the other members of the research team, including graduate students and technicians, and even to show their pictures. In addition, technical personnel may be sufficiently compensated by the recognition or "credits" given for their involvement in creating exceptional course materials. This recognition could be used in promotion reviews; it could also support requests by technical staff to focus their efforts on other creative endeavors that may not appear in their original job descriptions.

Parallel between Television Series and Online Courses: Points

The point system used in television

series is another promising feature for academic compensation. Points can be negotiated with the institution and assigned to the faculty creator of the course and to those design and technical collaborators whose creative input is essential to the design and delivery of a course. Since points can be divided into micro-units (fractions of a percentage point), it is possible to distribute royalties in a manner that fairly and accurately reflects the involvement of key personnel. The normal technical support services would still be rewarded by conventional wages, but work exceeding the bounds of the job description would be recognized, by credit and/or by monetary reward.

Sliding Scale/Participation Deal

The sliding scale concept is also adaptable. A system of distribution could be established whereby a course offered to a certain number of distributed education students would meet one level of

compensation for the institution and faculty and creative team; if the course is then offered to much larger numbers of students in much wider venues, the faculty member and creative team could negotiate to receive a higher percentage of the fees being paid. Similar steps on the scale would cover commercial sales of the course material.

Continuing Obligations and Rights for Faculty and the Higher Education Institution

When a faculty member leaves one institution of higher learning to teach at another, who has access to the course materials created by the faculty member? The answer is simple if both the institution and the faculty member retain rights to offer the course. But, particularly as commercial partnerships and for-profit institutions enter the picture, this could be a difficult issue to resolve satisfactorily. In the interest of academic freedom and enrichment of teaching, faculty must be able to explore possibilities at other

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institutions without being penalized by loss of their course materials if they move. Further dialogue is needed on this subject, but again we can look to parallels with the broadcasting industry. The television series syndication model can be drawn on in this context. In television syndication, affiliated stations pay a licensing fee to the original networks and producers of the programs to be re-run. A similar arrangement could be explored in the academic setting whereby the new institution to which a faculty member has moved could pay the faculty member's previous institution a fee for the use of the online course. The faculty member would thus have continued access to the course materials that he or she created,

CONCLUSIONS

Technical training and support are growing needs for both on-campus and online integration of new learning technologies in higher education. Moreover, intensifying competition from the growing numbers of nontraditional institutions in the online distributed education arena demands that traditional institutions of higher education foster an environment in which the best faculty and the most innovative programmers and designers can come together to create curricula that utilize the rich academic tradition of institutions of higher learning as well as the full range of possibilities offered by information technology. Producing online courses

vestment but rather as operating overhead. Institutions of higher learning have always been obliged to provide their faculty with the means to teach, be it in terms of adequate training in pedagogical skills or in terms of necessary tools, such as classrooms, chalk, and blackboards. Since faculty training in the new technologies would represent significant costs on the part of the college or university, including these costs in calculations of institutional investments to be reimbursed by online course development would put faculty at an unwarranted disadvantage.

From a faculty perspective, the ownership and compensation issues addressed here could encourage greater

is important to remember that money isn't everything. As was mentioned above, talented people in the motion picture industry often forgo monetary compensation for the creative challenge and stimulation offered by independent productions. Similarly, in academia many of the most innovative faculty members and technical personnel could find employment outside of higher education for more money than colleges and universities would ever be able to afford. Yet, many creative faculty and staff place a higher value on other elements of their work, including a commitment to the mission of higher education and the freedom and depth of engagement with ideas that traditional colleges and universities offer. The gratification of doing innovative work that is recognized and valued should not be underestimated. Working for a corporation could provide faculty and staff with more money, but in turn their work would be wholly determined and owned by the

corporation. This may be a fortunate factor for institutions of higher learning, since it could provide a way to compete in the increasing demand for superior faculty and highly trained programmers. In addition, allowing graphic and instructional designers to perform consulting work outside of the institution could supplement their incomes and provide a flexibility that might make the college/university job more appealing.

The alternative model outlined in this article—the media production model—does not seek to contribute to a greater lockout of educational fair use of copyrighted materials or to discourage a spirit of cooperation among academic communities. It seeks, rather, to stimulate new thinking about ownership and compensation issues in online distance education and distributed learning and to produce more creative solutions to some very difficult problems. We *must* address these problems if there is to be any hope of stopping the drain of the best and the

brightest from our colleges and universities. Recruiting, retaining, and encouraging creative faculty and staff to produce extraordinary teaching and learning environments requires offering incentives that recognize the expertise and effort of all involved—of all team members. Confronted by formidable demands on existing resources and intense competition from the commercial realm, traditional institutions need to take bold steps toward new understandings of ownership and compensation if they hope to participate fully in the changing landscape of higher education today. *e*

Notes

1. An invaluable analysis of the intellectual property issues can be found in Carol A. Twigg's report for the Pew Learning and Technology Program: "Who Owns Online Courses and Course Materials? Intellectual Property Policies for a New Learning Environment" <<http://www.center.rpi.edu/PewSym/mono2.html>> [accessed November 20, 2000].
2. Most recently, one such policy agreed upon by Duke University was issued publicly and featured in the June 9, 2000, issue of *Chronicle for Higher Education*, A47.
3. Twigg, "Who Owns Online Courses and Course Materials?"



If the current rate of attrition of technical staff numbers continues, faculty will soon find no one available to help them incorporate information technologies into their courses.

and the originating institution would be compensated for its capital investment.

The advantage of the possibilities offered by the sliding scales is that both the institution and the faculty member retain access to the course. Because of the "Created by" credit given to the originating faculty member, that person continues to receive not only credit for creating the course but also applicable royalties generated at the originating institution. The college or university keeps the course listed in its catalogs and continues to generate its own revenue portion from the teaching of the course. In addition, the current instructors' names now appear on the course syllabus as well.

requires intensive labor and skills to maintain high educational quality. At the same time, institutions of higher learning must establish widely understood and agreed-upon procedures that will lead to the funding of programs in harmony with institutional priorities. Because of the great time and costs involved in online course construction, scalable and sustainable institutional funding support questions are just as pressing as ownership and compensation issues.

The media production model outlined here argues that the costs incurred to train faculty and provide necessary infrastructure should be categorized not as part of the institution's capital in-

participation in technologically enhanced course development. Though it could be argued that some of the current policies being forged benefit faculty more by not diluting their royalties or credits with the inclusion of technology consultants, such policies could prove to be self-destructive. If the current rate of attrition of technical staff numbers continues, faculty will soon find no one available to help them incorporate information technologies into their courses.

As has been expressed by Twigg's online course ownership report, few online courses created in traditional institutions are likely to generate revenues beyond their costs. However, it

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