Chapter Five

COMPETING WITH NEW EXTERNAL PROVIDERS OF
EDUCATION

Higher-education institutions may be skittish about the uncertainties associated with innovative uses of information technology to build learning communities. But a growing collection of external providers—mainly proprietary, for-profit institutions—are embracing them. A brief review of these external providers can yield several insights for higher education, allowing them to size up the competition, suggesting some concrete models of technology-based reforms worth borrowing, and even offering opportunities for collaboration as well as strategies for competition. Because the literature on these new providers is scant, we limit ourselves to discussing just a few examples.\(^1\)

**WHAT ARE EXTERNAL PROVIDERS?**

The proprietary training sector covers a wide range of schools and providers. Some grant degrees; others offer only short courses and

\(^1\)Surveying external providers would be a worthy research topic. Many basic questions beg answers:

- How many of these online external providers are offering contract training?
- How many are now shifting over to offering “serious” higher-education courses?
- How are growing demands for “knowledge workers” affecting the demand for these providers?
- What will new business practices that rely on them look like (presumably decentralized, networked, transformed by information technology itself)?

An understanding of external providers would give higher education a better foundation for thinking about how to train knowledge workers and, therefore, how to compete (or partner) with new providers that are already training them.
training seminars. Some focus on routine clerical, sales, and cosmetics skills; still others offer professional classes in law and architecture. About the only feature all share is that fees and tuition cover costs, since none is supported directly through taxes. Because their operations are so different, it has been difficult to measure the size of this sector in relation to public and private academic institutions. Clearly, however, it is a large and growing sector. California alone now boasts thousands of proprietary schools (compared with 200 or so traditional higher-education institutions), bringing in an estimated $1.4 billion in tuition as of 1992. This sector promises to expand substantially because, in the future, businesses (not individuals) will be the primary clients. In 1994, businesses spent roughly $50 billion on training. Whereas much of that training was done in-house in the past, it is increasingly being outsourced to external providers.

Probably the biggest, and certainly the fastest-expanding, part of this sector belongs to companies providing training in using new information technologies. In 1995, corporations in the United States paid over $15 billion in information-technology training, a figure that will probably grow about 15 percent per year to over $30 billion by the end of the century. Such courses cover everything from mastering the nuances of Windows 95 to acquiring much more generic skills in object-oriented programming, analysis, and design. Not surprisingly, the courses are not only about high technology but use that technology, originating, generally, with external providers who specialize in training products that make the heaviest, and often most innovative, uses of information technology. Some, such as The Teaching Company (Figure 2.10) and Learning Tree (http://www.lrntree.com/) offer thousands of computer-based training (CBT) course products, most created to meet the needs of large corporate clients. Microsoft, Intel, Novell, and other large software and hardware companies also offer a wide range of training courses. But theirs are courses tailored primarily to their own products, rather than to clients' interests.
MICROSOFT TAKES OVER

At first glance, Microsoft’s OnLine Institute (MOLI) at http://moli.microsoft.com/\(^2\) resembles Athena in several ways. In some respects aiming at one-stop shopping for training, it supplies online enrollment, certification programs, exam preparation, and a list of Web-based courses. (See Figure 5.1.) But MOLI’s relationship with students, course providers, and specific classes is actually anything but traditional. More like GNA than Athena, MOLI mainly furnishes the infrastructure and value-added services that organize Web-based courses on such products as Visual Basic, C++, and Word. Third-party online content vendors (OCVs) develop most of the interactive courseware products; different groups, called authorized online classroom providers (OCPs), build specific classes from these materials, adding human learning advisors and other curriculum material as needed. Students then interact with MOLI by searching the course-list database to find OCPs whose courses meet their needs and whose location is suitable. (Distance matters for a subset of the courses that include extensive face-to-face interaction with learning advisors.) Students also can make use of various common information resources in MOLI, such as the student union, library, advising center, and bookstore.

Just as it provides various tools to help consumers, MOLI also attends very carefully to its suppliers. In contrast to the World Lecture Hall, which seems to accept all course offerings it receives, MOLI constrains course providers in at least three ways. First, the Institute defines the topics (the Microsoft products and programming skills) for which it will accept courseware. Second, it evaluates courseware and classes, and admits only those OCVs and OCPs that it authorizes. Third, courseware and classes, and admits only those OCVs and OCPs that it authorizes.

\(^2\)As of October 1997, MOLI no longer resides at this location; Figure 5.1 is also obsolete. We have retained the following discussion, however, because the contents, products, and services of MOLI have not been abandoned by Microsoft. Rather, MOLI has been integrated into Microsoft’s Authorized Technical Education Center (see http://www.microsoft.com/atec), which combines both Web-based training and traditional classroom instruction in one site. The disappearance of MOLI, therefore, is not a testament to the short life-span of many digital ventures. On the contrary, it underscores how readily Web-based services can be combined or transformed into new—and presumably better—ones.
Third, it imposes standards for courseware development that help ensure that Web-based content developed by different OCVs will run on a wide range of platforms and will work well when put together into larger course products. MOLI encourages content vendors and course providers to meet these demands by offering tools and infrastructure, including the bookstore and library, that help create high-quality products. But the primary incentive is financial: OCVs can sell curricula to OCPs and to other interested (but not authorized) parties through the MOLI bookstore; OCPs sell courseware directly to individual students or corporate clients.

This model for instruction delivery has many interesting features, some also shared by communities such as Athena and GNA, but oth-
ers that look quite new. Because MOLI has no physical infrastructure and few labor expenses, the cost of courses is low. (It is not clear that Microsoft makes a penny from MOLI, since its main goal is to sell software, not training.) By carefully managing its third-party vendors, MOLI can effectively provide just-in-time training services; vendors move rapidly to create courses for new Microsoft products, to reach the market ahead of their many competitors. Also, like Athena and GNA, Microsoft is concerned with assessment exams and certification of students. However, in contrast to other virtual universities, MOLI has no concept of admission or course load; students simply purchase instruction as needed (or as required by their employers), course by course, if not concept by concept.

**TRAINING MODEL VERSUS HIGHER-EDUCATION MODEL**

All this might seem right for corporate training, but what lessons might higher education draw from such a model? On the surface, training is a very different sector from higher education. Most training skills are relatively narrow and well-defined, whereas skills taught in higher education are usually broader in scope and more difficult to quantify. Business skills also typically turn over more rapidly than those targeted by higher education. Microsoft needs new courses every year for the many software products it creates, buys, or modifies; university classes often stay relatively fixed, in part because the topics they address—intellectual and cultural artifacts, from philosophy to algebra—change slowly, if at all. The sectors also differ in the wealth of the clients they serve, as well as in the nature of the skills they target. Businesses routinely spend much more per worker on training than public education spends per student. Training providers can use this high profit margin to invest in new training technology, while higher-education institutions often find the price tag for new information technology too high.

However, these differences are diminishing; indeed, previously distinct boundaries between the higher-education and corporate-training markets may be beginning to blur. For one thing, higher-education institutions are coming under pressure to change their course offerings more quickly and to make them responsive to the demands of business. The resulting curricula often focus more on applied knowledge than do the ones they are supplanting. Corporate
training is also moving in this direction, although from a very differ-
ent starting point. In the past, most training schemes were voca-
tional (helping mechanics fine-tune skills on new machines, for ex-
ample); today, more and more cater to knowledge workers in their
never-ending quest for life-long learning. Creative thinking and
higher-order problem solving, topics once the exclusive domain of
higher education, are slowly crowding out learning of routine proce-
dures in training courses. Even now it is hard to distinguish, say, a
computer-aided drafting course at a proprietary school from one of-
fered by a community college or a university.

At the same time, although today it is still easier to create courseware
for training classes on programming and using spreadsheets, informa-
tion technologies are becoming increasingly useful in educa-
tion classes that focus on more-complex (and less-well-defined)
problem-solving skills, as many of the Internet and Web tools we re-
viewed already attest. Further, as these technologies continue to
drop in price, higher education should become an increasingly prof-
itable market for them.

In short, education and training are merging in two senses: just as
the content of training is becoming more like the content of higher-
education classes, the feasibility and profitability of technology-
based courses for higher education are rising to the level of com-
puter-based training.

REFLECTION: HIGHER EDUCATION, EXTERNAL
PROVIDERS, AND INFORMATION
TECHNOLOGY—FLIGHT, FIGHT, OR FRIENDS?

How, then, does information technology affect higher education’s
challenges of competing with new external providers? If anything, it
is exacerbating, not easing, them. Several strands of evidence argue
that proprietary providers already think that information technology
has helped reduce delivery costs to the point where even “down-
market” (read: higher-education) services can be delivered prof-
itably. A growing number of companies now straddle both sectors,
in many cases offering essentially the same courseware products to
each. Academic Systems (http://www.academic.com/), for example,
has had banner years in both sectors. Just after receiving $12 million
from Microsoft, TCI, and Accel Partners to develop corporate training programs that can be dialed up on a user's home computer, Academic Systems got high marks for its CD-ROM-based algebra curricula in California State University classrooms.

This is just one example of what will probably be an important trend in the coming decade. Several niches in what may eventually be a vast market in adult learning are apparently ripe for technology-based educational services. For-profit companies are tapping each of them aggressively. Academic Systems is marketing directly to higher-education institutions. Others, such as The Teaching Company, look primarily to the home market. Many of them also offer educational software to corporate clients, for remedial instruction. Whereas, in the past, corporate training has focused mainly on job-specific skills, businesses now also are under increasing pressure to provide remedial instruction for employees (for learning that probably should have been acquired in college or even high school, but was not). In different guises, all these growing areas are calling for roughly the kinds of learning that higher education typically has offered. But, except in traditional higher-education markets (young adults coming straight out of high school), universities and colleges are largely ceding these opportunities to proprietary providers.

**Flight**

Higher-education institutions as a whole have not formulated plans to deal with the increasing encroachment of external providers on their "turf." They need to. These providers enjoy several advantages over higher education that enable them to devise creative systems for delivering training and education on the Internet and Web. To begin with, many are technically savvy and heavily capitalized. (Today, for example, Microsoft probably invests more in educational-technology R&D than the federal government does.) This means that external education providers often have both the financial and intellectual assets they need to experiment with high-risk/high-gain educational designs. Perhaps more important, when designing schools or other

3Companies are naturally reluctant to pay employees to acquire broadly valuable skills, since these skills will make them more attractive to other firms too, not just more valuable to the employer.
delivery systems for learning, external providers have the great lux-
ury of starting with a clean slate: no need, for instance, to assume
that classes will meet at a set time, to worry about faculty displaced
by software, nor to fight with teachers’ unions. Consequently, when
external providers craft their designs, they can focus on what the
technology makes possible and what services their clients demand,
rather than worrying about how to shoe-horn new designs into exist-
ing educational structures.

At the very least, then, these providers offer innovative models for
using information technology that higher education should attend
to. But, after learning from them, what actions to take?

**Fight**

One approach is to shore up defenses against invaders into tradi-
tional higher-education markets, for example, by erecting protec-
tionist barriers that discourage new providers from entering the bat-
tle. Some would argue that the tax supports that public institutions
now enjoy do just that. Perhaps a more positive tactic is to improve
productivity in the face of new competition. Many of the enterprises
we have reviewed—distance-learning campuses and virtual univer-
sities, for example—can be regarded as ways in which higher educa-
tion already is trying to become more productive, sometimes by bor-
rowing models of delivery from the training sector, and often by
creating innovative models of its own.

A different strategy is to take the offensive, rather than honing de-
fenses. Inspired in part by movements of external providers into
higher education’s turf, a few institutions are beginning to respond
to the challenges posed by external providers by moving, however
cautiously, into contract training. Of all higher-education institu-
tions, the community colleges have shown by far the most initiative
here. (See Figure 5.2.) A few years ago, about half of all community
colleges did some contract training with business; today, about 90
percent do. Some community-college experts even see training as
the solution to their financial problems and expect that contract
training will become the biggest piece of the community-college
system.
Still, higher education faces several imposing difficulties in this migration, some of them technical. Corporations, for example, expect personalized, on-site training services; external providers increasingly deliver these tailored courses through wired or even satellite-based network technologies. Community colleges will need comparable tools in order to offer quality courseware at a competitive per-person price that is equally responsive to clients' needs.

Other challenges are organizational, reflecting the fact that community colleges (unlike external providers) do not have carte blanche for building their contract training services. Business clients, for example, frequently expect to be able to mix their instructors with college personnel; however, doing so often conflicts with union contracts that forbid colleges to hire external staff. Also, some contracting arrangements threaten informal or formal community-college rules requiring that the college serve mainly local needs (tough to adhere to if contract training is shipped across the state via networks) or demanding that classes be open to all students (senseless if courseware is designed for specific corporate clients).

**CORPORATE TRAINING**

Although community colleges have been in the corporate training marketplace for some time, they now are reaching out more aggressively, and the American Association of Community Colleges says that about 90% of its member colleges are involved to some extent in the business of training workers for specific companies, rather than just teaching generic subjects or trades. Cost-conscious community colleges have a natural advantage competing for this business against four-year institutions, which may be too proud, too well-off, or too bureaucratic to show much real interest in the training needs of the local business community. A key indicator of successful community college corporate programs is the college's willingness to bring instruction to the client's workplace, rather than requiring students to come to its campus. (David Stamps, "Community Colleges Go Corporate," *Training*, December 1995, p. 36)
Friends

While community colleges struggle to compete with external providers in the contract-training market, other higher-education institutions are starting to evolve different strategies, some involving cooperative partnerships as much as competition. In this battle, the size of long-established universities, while often a liability in times that demand nimble change, actually can work to their advantage. For one thing, some training needs are so vast that they attract only the largest providers.

For example, in 1996, Michigan announced a large-scale educational program that would use the Web to deliver a wide range of courses. (See Figure 5.3; also see http://www.mvac.org/.) Centered around the Virtual Michigan Auto College (Auto U), the idea is to help train the next generation of auto-industry workers, and thus to keep the industry firmly centered in Michigan. This is far too big a training job for any proprietary training school to manage by itself, so the plan is to build Auto U as a collection of state schools, led by the University of Michigan and all tied together through the Web.

Auto U looks innovative from several perspectives. First, many courses will be designed by teams drawn from Auto U and business

MICHIGAN FOCUSES ON THE AUTO JOBS OF THE FUTURE

DETROIT, Feb 28.—The Governor of Michigan today called for a large-scale education program that would use computer networks and tax credits to help train workers for future job openings in the automobile industry. . . .

The Governor said that to boost skills the state would create a virtual university called Auto U, consisting of courses taught on the Internet. Students could use computers to take classes focusing on the auto industry.

In addition, [Governor] Engler said the state would act as a sort of employment agency for the auto industry. The Michigan Employment Security Commission will use applications—in person and over the Internet—to screen job seekers.


Figure 5.3—Auto U
partners, giving business a much stronger voice in curriculum planning than it usually enjoys. Second, the Internet apparently will play multiple roles here, beyond connecting students with instruction and linking businesses into course design. Using Web sites connected to Auto U, the state’s employment commission will provide instant access to all Michigan online automotive information for students and prospective employees. Students will even be able to take virtual occupation tours, learning directly from workers about the types of jobs available in plants today and the skills needed to do them. (See also Figure 4.3.)

In short, Auto U appears to have the key trait of healthy electronic-learning communities, beginning with one or two core functions, then quickly adding new functions and new stakeholder groups. The third innovative feature of Auto U is the addition of one such group: As well as public higher-education institutions, the Auto U partnership will also include some for-profit trainers. As such, it may be one of the first examples of a cooperative arrangement that includes higher education, external training providers, and business.

Since Auto U is still barely off the drawing board, it is too early to tell how this cooperative partnership between higher education and external providers will work. Several relationships are possible. Perhaps reminiscent of Athena, principal partners (the University of Michigan) might retain considerable control, contracting out specific courses or services to specialized providers; more like MOLI, the higher-education partners could manage, set goals, and ensure courseware quality while delegating much courseware development to external partners; even less constrained relationships, as exemplified by GNA, might work.

However, one common feature in all these possibilities is the role that the Internet and Web will play in tying together the different partners in this evolving community. As we have seen, networks permit courseware and design discussions (as well as instruction delivery) to be shared readily, both within institutions and across their boundaries, enabling a collection of very different (and physically remote) institutions jointly to construct new educational curricula. Absent rich network connections, such heterogeneous models of
education and training delivery simply were not feasible in the past. But, if Michigan can make this experiment work, these models may become increasingly popular in the future.