Approximately 500 virtual universities are reputed to be in existence today, with over 6,000 accredited courses offered online. The total online higher education market of $1.2 billion in 1999 will reach $7 billion by 2003 or, according to a more conservative estimate, $4 billion by 2005. Venture capitalists have been fueling that growth by investing $100 million every quarter since 1998 in entrepreneurial Internet educational content companies. David Collis, Frederick Frank adjunct professor of international business administration at Yale University, addresses the impact of the revolutionary changes in the higher education industry on traditional colleges and universities.
Business Models of New Entrants in Higher Education

Many for-profit corporations are now targeting the higher education market. Analyzing their strategies helps reveal possible effects of these entrants on the incumbent colleges’ and universities’ business models. While it is difficult to be precise about strategies of the new entrants, an analysis of 127 firms identified as content providers by four brokerage houses offers a rough sense of their overall direction.

There are several possible ways to categorize the entry strategies of the new players. This analysis focuses on five elements that seem to have the most repercussions for traditional colleges and universities: the courses entrants offer, their target customer group, where their content originates, the pedagogy they employ, and their pricing.

Courses

Examination of the course offerings of the corporations entering higher education reveals a striking predominance of business related material. Seventy-five percent of the companies are focused on areas such as management, performance improvement, and specific corporate skills, such as information technology. Of the remaining 25 percent, a large fraction offer courses to doctors and lawyers, focusing on continuing education for those professions.

Another striking observation is that as many, if not more, firms are offering master’s degrees as are offering undergraduate degrees. While by no means are all entrants offering degree programs, many of those that do have begun with graduate level programs.

These facts reflect a natural progression in an entrepreneurial entry strategy. The most lucrative and receptive market is for business courses. As firms build brand names and establish presence in the market, one can predict an evolution in course offerings from short management certificates and continuing education for the professions, through more general and softer leadership skills and performance improvement, to an MBA or other professional degree, and only finally into undergraduate liberal arts degrees.

The popularity of this entry trajectory does not mean there will be no direct entry into the undergraduate arena. However, the majority of entrants will take the easiest path into the industry.

Customers

Consistent with the predominance of business courses, the primary customer for new entrants is the corporation. About 60 percent of entrants have identified the corporate market as their first target, for obvious reasons. The size of the market is enormous. At $66 billion, it is one quarter the size of the entire higher education market and is growing rapidly. In terms of marketing resources, one sale to a large corporate customer can generate millions of dollars in revenue at once.

Corporate training is also most amenable to the appli-
cation of new technologies. The indirect and opportunity costs of traditional classroom education for corporations are massive. Cisco Systems estimates that online training reduces costs to 10 percent of those of an instructor-led class. Additionally, students directing their own learning online may retain material better than those taught in a classroom. The use of asynchronous technologies for education allows companies to shift from expensive “just-in-case” to productive “just-in-time” learning.

With these strategies, new entrants will build valuable resources—financial, brand, and expertise with the new pedagogies—that later can translate to the more traditional higher education market.

**Content**

Entrants generate course material in three primary ways. First, they can hire their own staffs to develop new materials. Second, they can license existing courses from colleges and universities. Third, they can contract directly with individual faculty or other experts for material and courses, similar to a traditional book publishing arrangement. How entrants develop their content is of vital importance to colleges and universities, whose interests lie in keeping the third source of content to a minimum.

The data suggest that entrants are keeping their sourcing options open. Indeed, several major players appear to be pursuing all three options. While deals at the university level are attractive, thus far they have been quite expensive; the long-term trend will probably be for entrants to source material directly from faculty.

**Pedagogy**

As with the source of content, the pedagogical approach of entrants appears to be broad and eclectic. Clearly, all are introducing Internet-based online education, but few are relying exclusively on that technology. At this point, asynchronous technologies still seem to require support from more traditional pedagogies. One study, for example, found that completion rates for online courses were raised from 25 percent without a tutor to 75 percent with one. Many observers believe that a breakthrough in the use of technology for education will come with the widespread adoption of broadband that allows streaming, realistic, two-way video into the home.

**Prices**

Entrants pricing strategies have the greatest potential to disturb higher education’s current environment. One of the great advantages of the new technology is that it allows for very low price courses, since the marginal cost of delivering a course (after the initial investment for development) is negligible.

In principle, entrants could destroy the price structure to which traditional institutions have become accustomed. Yet that is not the case. Higher education is an attractive business and entrants want to benefit from the price umbrella, not destroy it. Additionally, in the corporate market, the indirect cost savings of asynchronous technologies are so substantial that cutting prices for courses is unnecessary. Finally, education is an experience good—the purchase decision involves perceptions and interpretations of signals about quality. One of the most visible signals of quality is price. Thus, the powerful implication for colleges and universities is that extensive price competition is unlikely to occur immediately.

**Business Models of Traditional Colleges and Universities**

Strategies of incumbent institutions generally fall into four categories. In ascending order of innovation, they are:

- Incremental—technology is being applied on campus as a complement to the existing classroom experience, such as course Web pages.
- Distance education—community colleges are widely adopting this approach in accordance with their missions to expand their geographic reach and to make education more convenient for individual students.
approach increases the overall market size, but does not yet threaten an outbreak of real market competition.

- **Alliances**—this strategy allows a third party to resell an institution’s courses more aggressively and into new markets. It most effectively and quickly leverages a university’s brand name and course content with the least risk in terms of time and money, and often with minimal objection from faculty.

- **Market entry**—the final step is for institutions to enter the new markets themselves, without the benefit of a partner. So far there have been few of these ventures; Harvard and Columbia have been at the forefront, with HBSi and Morningside Ventures, respectively.

Most institutions are experimenting with some, if not all, of the above strategies. Just as we can predict a natural progression in the activities of new entrants, we can expect to observe a sequence in the response of incumbents as they initially adopt technology internally, use it to serve current customers better, then seek the help of others to put their toe into new markets before finally taking the risk of committing themselves to a new business opportunity.

## Conclusion

Who will win in the long run—entrants exploiting the corporate market and then moving into the traditional university market via distance learning, or institutions that already have begun to go after the individual distance learning market? The answer depends on the relative attractiveness of the two markets, and on most dimensions the advantage lies with the entrants. The corporate market is the fastest growing and the most profitable. Additionally, and perhaps most important, the demands of the corporate market force quicker development along a steeper technological trajectory, where entrants develop new pedagogies and build the capabilities needed to succeed when they enter the traditional university market.

Two important conclusions can be drawn from this analysis. The first is that the direct competitive threat to most of the traditional core offerings of colleges and universities will be delayed. Instead, entrants are largely focused on the corporate market and graduate level training, and at only slightly lower prices. That is the good news.

The bad news is that well funded competitors, often backed by brand name institutions through alliances, will be hard to beat once they are established. First mover advantages that they can exploit, particularly the more rapid development of the skills needed to harness the new technologies and develop new pedagogies, will put them in good stead as they gradually transition to compete more directly in the traditional higher education market.

Thus, even if the overall conclusion is that there is a less immediate threat than we might have imagined from new entrants and new technologies, that threat is potentially more insidious because when it becomes obvious, the game may already be over.

David Collis is Frederick Frank adjunct professor of international business administration at Yale University. Prior to joining Yale, he was associate professor of business administration at Harvard Business School, where he taught for 11 years. Collis has written numerous articles and books on organizations, competition, strategy, and management, and prepared dozens of Harvard Business School case studies.