

Preface

One of the most enduring images embodying the essence of learning is that of a teacher on one end of a log and a student on the other. Benjamin Bloom noted in his well-known essay entitled “The 2 Sigma Problem” (1984) that tutoring is twice as effective as conventional instruction. Despite the pervasiveness of large lecture courses found in colleges, the core of learning is one-to-one dialogue between a tutor or mentor and a learner. The challenge has always been to find methods of group instruction that are as effective as these one-to-one learning relationships. The Internet has now made individual learning and mentoring practical and cost effective to a degree never before possible.

This book examines the rapidly developing sector of online tutoring and mentoring. In addition to looking at the specific case studies of the adaptation of university-based programs for tutoring and mentoring, it provides real-world examples of what Thomas Malone and Robert Laubacher in a *Harvard Business Review* article termed the dawn of the “E-Lance Economy,” with both non-profit and for-profit Web firms designed to facilitate online tutoring and mentoring arrangements. This book brings to light the fascinating way that one-to-one relationship facilitation through the Internet is changing how learning, personal and professional development, and knowledge acquisition occurs.

Forty-two percent of Americans believe there is a need for tutoring outside school hours, and 30 percent of school-age children receive some sort of tutoring. Private tutoring is a growth industry, with Americans alone spending an estimated four to six billion dollars per year on tutoring for their children. Primarily with services aimed at children, firms such as TutorVista.com, Sylvan Learning Systems, and Smarthinking facilitate tutor relationships by contract. Online tutoring for adults is also expanding rapidly in university-based environments for writing and composition and other disciplines, for the mentoring of doctoral candidates through the dissertation process, and for novice classroom teachers as well. The total investment across all ages in America is approximately \$12 billion per year (Gordon, et al, 2007).

A highly complex and quickly evolving field like online tutoring and mentoring is diffuse and difficult to readily grasp. Published reports on real-world applications are challenging to locate. This book presents a wide range of case studies that include background information on the organizations with detailed descriptions of how they operate, along with other support materials designed for both applied and college classroom use. One-to-one teaching-learning techniques and pedagogical approaches are discussed in these case studies, as well as how providers execute their business models. Case studies contain examples of ways in which software and administrative practices manage the formation of one-to-one relationships.

ORGANIZATION OF THE BOOK

For the purposes of this collection of case studies I define tutoring as one-to-one teaching, and mentoring as an experienced advisor providing guidance. Although tutors may have multiple students they work with (in groups or separately), they are defined by acts of one-to-one communication that makes them function in some sense as a private teacher for the student. However, the definitional lines are not always clear because tutoring can also sometimes involve a broader mentoring role.

We begin by looking at a group of dynamic non-profit mentoring organizations. The Electronic Emissary is a Web-based service and resource center that helps teachers and students with Internet connections to locate mentors who are experts in various disciplines, and then plan and engage in curriculum-based learning. In this way, the interaction that occurs among teachers and students face-to-face in the classroom is supplemented and extended by electronic mail, Web forum, chat, and audio/videoconferencing exchanges among participating teachers, students, and volunteer mentors. These project-based online conversations typically range in length from six weeks to a full academic year, as students' needs and interests dictate. Electronic Emissary serves students and teachers globally, but the majority of its participants thus far have been in North America.

MentorNet is dedicated to diversifying the engineering and scientific workforce by providing e-mentoring to women and underrepresented minorities in colleges and universities. Founded in 1997 by Dr. Carol Muller, it grew out of a pilot online mentoring program at the Dartmouth School of Engineering. Arguing that engineering and science are the engines of progress and economic development, MentorNet strives to get as much talent as possible into the science technology pipelines. The organization partners with over 100 universities including MIT, Stanford, Caltech, Carnegie Mellon, the University of Michigan, Ohio State, Penn State and many Ivy League colleges.

GEM-SET is one branch of pre-college mentoring provided by the Women in Science and Engineering program at the University of Illinois at Chicago that links volunteer women mentors in the fields of science, engineering and technology to student members from across the United States. More than 1,300 young girls ages 13-18 years old and 200 mentors in graduate school and beyond have participated via online mentoring and face-to-face programming where available. The benefits to the student participants are access to scholarship and internship information, invitations to field trips, career panel discussions and conferences, direct access to successful mentors in non-traditional careers, and tutoring.

iMentor is a New York City-based youth mentoring organization that uses guided e-mail communication to enhance in-person youth mentoring and continues to leverage lessons learned to help other groups to start up their own mentoring programs. This case study illustrates how the organization has effectively used technology to add flexibility and structure in its mentoring program, engaging professionals as mentors and mentees from some of the most economically and geographically isolated communities. It also describes how the organization transformed itself to meet a national demand for its programming by developing and licensing its own mentoring technology platform. The authors argue that the sector must be diligent about adhering to the best practices of a good, in-person mentoring program, including screening and monitoring of program participants, as well as providing structure and ongoing assistance.

With the high school dropout rate in the United States at epidemic levels and the proportion of guidance counselors decreasing, mentoring programs are an increasingly effective way to reach young people with the college and career guidance they need. icouldbe.org's online mentoring programs reach young people who do not have access to quality educational resources, using a learning environment to connect them to mentors who offer practical and individualized advice, information and expertise. The organization's program is grounded on an evidence-based curriculum that is student-paced and

student-led, placing young people at the center of a community of classroom teachers and adult mentors invested in their futures.

At Aristotle University of Thessaloniki in Greece, the authors explore the issues related to electronic distance mentoring of young people in the framework of professional development and support. Individualized mentoring is typically underused because of the high operational cost and the lack of specialized mentors in the country. Nevertheless, mentoring is considered the most effective means of providing career guidance. In this case study, we see that the application of computer-based videoconference systems seems to have successfully bridged geographical distances, improved interaction considerably, and reduced the response time of interventions.

The online mentoring of adults for specific professions is another growing area of interest. The Australian Catholic University, a public university funded by the Australian government, added a new dimension to the teaching practicum to facilitate online peer mentoring among pre-service teachers by providing them with opportunities to reflect on teaching prior to entering full-time employment. While on their practicum, students used social software integrated into the university's course management system, to share and reflect on their experiences, identify critical incidents, and invite comment on their responses and reactions from peers.

UCLA Extension Writers' Program, America's largest continuing education provider of online creative writing and screenwriting courses and services, offers individualized feedback and mentoring to 1,000's of aspiring and practicing writers worldwide. Writing creatively is singularly private and can be isolating; the Writers' Program's 220 annually-offered online courses in fiction writing, memoir, personal essay, children's literature, playwriting, poetry, publishing, feature film writing, and television writing provide access to in-depth instructor/student, student/student, and student/advisor relationships designed to help meet individual writing goals.

Adults in doctoral programs need a combination of specific course-related instruction, as well as mentoring as they transition into the profession. During the initial accreditation process for California State University, San Bernardino's new doctorate in educational leadership, the accrediting body presented the institution with a serious concern about a lack of a history of a doctoral culture. Leveraging a track record of creating online communities of practice, one was developed to provide the scaffolding similar to that which occurs in full-time doctoral programs where faculty and students regularly interact in both formal and informal settings.

The doctoral program at the School of Advanced Studies at the University of Phoenix provides a process for working adults to earn a doctoral degree. The philosophy of the doctoral program and the program's continual growth and development are illustrated in this chapter. Information on the people and the processes, both internal and external to the University of Phoenix, involved in the successful completion of the degree program is covered as well.

Next we consider a group of rapidly growing for-profit online tutoring groups. Smarthinking provides asynchronous and synchronous online tutoring for several general education courses and degree-specific courses, supporting students enrolled in secondary and post-secondary education 24 hours a day. The firm employs hundreds of professional educators from around the globe. Trends this group identified in the case study include exploring video and voice applications, and using the student archive as a valuable research database for student learning.

TutorVista.com emerged from seeing the growing need for online tutoring combined with an economical way of delivering this service. It was started when its founder was traveling in the United States and was inspired by a cartoon in a newspaper showing a child talking to her father saying, "No, you may not outsource your homework to India." With millions of capable educators in India earning only a fraction of what educators make in the United States, TutorVista.com could double salaries and still be far lower

than American levels of teacher compensation. Most of its current 1200 employees are based in India, and over the past years it has assisted over a half million students around the world.

A relatively little-known but growing component of the very large Sylvan Learning company is Sylvan Online, a one-to-one academic assistance program offered to students at home in association with local centers. This Internet-based service provides the same type of individualized academic support as the centers, yet it affords greater flexibility and access. Using proprietary technologies, Sylvan Online makes it possible to reach learners regardless of their geographic area or proximity to a Sylvan Learning center, and helps them receive the kind of academic support necessary to succeed in school.

As mentoring and tutoring online become increasingly common, the need to address cross-cultural pedagogical and communication has arisen. Bowskill and McConnell in the essay on the Sino-UK eLearning Programme consider the processes in the context of globally distributed inter-cultural course teams, and identify the significance of openness, structure, and dialogue as factors that support collaborative reflection. They analyze their own experience of global online teaching and focus on one technique used in collaborative inter-cultural practice involving having tutors maintain and share an online journal with other tutors in the course team.

Finally, the way that online tutoring and mentoring is being incorporated worldwide in the enormous mega-universities is considered. Indira Gandhi National Open University (IGNOU) with more than two million learners nationally has been a leader in the democratization of education. The university has the immense challenge of managing a large number of students spread across the country and for this reason have introduced online tutoring. This chapter discusses the applications of online tutoring in an educational system that has undergone extreme change from the ancient system of Gurukul to online education where the teacher or students interact through Internet technologies only.

COMMON THEMES

A pattern of consistent themes emerges from the case studies falling into three broad categories: need and effectiveness, pedagogy, and organizational issues. Table 1 summarizes some of the topics noted consistently in the cases on online mentoring and tutoring.

Need and Effectiveness

First, regardless of whether it is a for-profit, non-profit, or government agency, the need and purpose for each organization in this book is clear. Mega-university Indira Gandhi National Open University (IGNOU) has more than two million learners who require low-cost educational services in a vast geographically-dispersed region. According to TutorVista.com, the market for tutoring after school in India alone is approximately \$4 billion, affecting 110 million children. In the United States where every nine seconds a high school student drops out of school, TutorVista.com has helped over 500,000 students in 29 countries. Just as with tutoring, online mentoring addresses the issues of cost and limited capacity as well. iMentor believes that the traditional mentoring model ruled out thousands of potential volunteers who did not feel they had the flexibility in their schedule to make the kind of commitment face-to-face tutoring requires. Additionally, the usual model makes it difficult for mentoring programs to thrive in the most underserved and isolated communities, the same communities that could benefit the most from mentoring. Similarly, icouldbe.org recognizes that putting school children and adult professionals in face-to-face relationships is both logistically challenging, as well as a child-safety risk.

Table 1.

Need & Effectiveness	Pedagogy	Organizational
Need is clear	Vast population with different learning styles/cultures to address	Market readily available
Access for underserved populations (women, ethnic groups, etc.)/sectors	Learner-centered, 1:1	Less control by educational institution
Addresses needs of specific sectors (STEM disciplines, etc).	Focus on structuring specific disciplines	Partnership agreements
Create new value out of common everyday experience (mentoring)	Need to find ways of organizing informal knowledge	Process needs to be scalable; Web 2.0
Reduces expense of 1:1 education and mentoring	Traditional models of mentoring/tutoring adapted	Cost structure requires efficiencies
Reduces labor cost	Efficiently managed one-to-one time	Outsourcing, structuring of teaching/mentoring
Increases capacity to provide one-to-one learning and mentoring	Creates either on-demand or scheduled types of experiences	Requires automation of scheduling and arranging of mentor/tutor relationships
Provides opportunity for institutional networking and professional development	Mentoring arrangements need to focus on career development in some cases	Partnership agreements
Better assessment methods enabled	Technology allows for recording of sessions	Need and emphasis on quality control and assessment
Quality maintained	Assessment integrated with learning method	Many types of courses translate well online, as does mentoring
F2f bias can be avoided	Cross-cultural issues need to be addressed	Training needed
Provides new intimacy in learning; 1:1	Qualifications of mentors and tutors checked	Safety/security for young users is crucial
Quality of tutors and mentors key	Evaluation and training of instructors important	Support/resources needed
Employ effective computer-based teaching methods	Whiteboards, sound and other methods beyond text often used	Need technological support/platform

Online mentoring and tutoring assists traditionally underserved and hard-to-serve populations. Rooted in the belief that all young people, regardless of disability, should have access to and experience the benefits of online mentoring, icouldbe.org has recently started a program to reach young people living with disabilities. The impetus for online mentoring also emerges from chronic needs within particular professions. We learn from data tabulated by the National Science Foundation that only 19.5% of those in the engineering field are female, which led to the creation of GEM-SET. In a comparable way concentrating on both women and underrepresented minorities, MentorNet was created with the realization that engineering and science are important for the national and global economy and that they are challenging disciplines. Getting as much talent into science and technology fields creates benefits for all. Online mentoring can also address challenges in sectors such as teacher training, as described in the case on the Australian Catholic University.

Many adults find that an advanced degree becomes necessary for credibility and authenticity in certain positions requiring sophisticated writing, consulting, and leadership skills. Yet because of full schedules and multiple responsibilities, working students are unable to enroll in classes in traditional educational institutions. The University of Phoenix provides a means for adults to obtain their doctor-

ates online. Aristotle University of Thessaloniki, Greece attempts to cover the gap existing between big urban centers and peripheral cities of the Greek territory to provide career counseling and professional development.

In terms of the effectiveness of online tutoring, TutorVista.com found that over a three-year period with hundreds of thousands of online students that there was no statistical difference in effectiveness. In some cases, students are more open to asking questions and reveal when they don't understand something in an online environment. According to TutorVista.com, students feel less pressure to "pretend they understand" when they don't have someone staring them down across the table, and as a result online instruction can be much more thorough. Numerous independent studies and reports from client institutions demonstrated that Smarthinking fostered student achievement in various subject areas and helped improve student retention. At Sylvan Online, extensive studies indicate statistically significant gains in academic performance in both math and reading when compared to a control group.

The impact of mentoring can be a little more difficult to assess. According to GEM-SET, a causal relationship between e-mentoring and students' educational and career futures has not been established because it is nearly impossible to identify and isolate the factors that are most important in career decisions. Yet according to a study, three years after participating in the MentorNet program, 91% of protégés are pursuing or have successfully entered their chosen STEM (science, technology, engineering and mathematics) field. Additionally, findings show that students in icouldbe.org's mentoring program demonstrate a statistically significant increase in decision-making abilities and self-perception of their abilities to cope in school and life. Online tutoring and mentoring can also bring an intimacy to the one-to-one communication. According to MentorNet, online mentoring has a quality of being both intimate and professional. At UCLA Extension, the isolation that writers can experience often breaks down in online courses and is said to provide a kind of positive intimacy in the back and forth of online critique and rewriting.

Pedagogy

The second major pattern found in the profiles presented in this book centers on pedagogical and mentoring techniques. In general, face-to-face tutoring and mentoring forms often translate well online. For example, Sylvan's individualized assessment model made an easy transition to online. In the same way, the nature of writing workshops, which involve text-based notes on manuscripts, made for easy online adaptation for UCLA Extension Writers' Program. Teaching creative writing is particularly well-suited for online delivery because it involves exchanging documents with comments and revision. Similarly, for mentoring organizations, many of the same basic principles utilized during in-person meetings apply to the online environment.

One lesson found in the cases is that cross-cultural concerns must be addressed. This point is explicitly made and explored in the chapter on the Sino-UK eLearning Programme where cultural differences in communication styles became apparent. Additionally, TutorVista.com found that teaching across borders brings challenges in terms of both tutor training and public perception. In primarily serving American students, the firm had to provide a way for overseas tutors to become knowledgeable about American K-12 state standards and teaching styles. As a result, TutorVista.com developed comprehensive materials to assist in the training of tutors. Also, teaching methodologies can vary from countries where lecture-based PowerPoint presentations and rote learning predominate, to others where students are accustomed to asking questions and working interactively with the course material. Nevertheless, many of the online mentoring and tutoring organizations mention the attraction and advantage of removing cultural and other

forms of bias that comes with face-to-face meetings. Online mentoring and tutoring by its nature tends to hinder potential individual bias and provide a positive sense of anonymity. For instance, online writing education at UCLA Extension offers the virtue of relative distance when presenting highly personal creative writing. The anonymity of online tutoring and mentoring keeps the spotlight on the content/subject itself rather than the in-person distractions of age, race, nationality or gender.

Online mentoring and tutoring is often augmented by a curricular structure. One of the features of the *icouldbe.org* platform is that students create their own paths through a curriculum choosing among tracks that interest them and learning at their own pace. While mentees work through the curricula, mentors provide qualitative support and guidance. *iMentor* supports student interaction with mentors without direct teacher involvement. These one-to-one mentoring services involve individual students interacting with one mentor each, often discussing topics that are not explored as deeply in school. Others, such as the *Electronic Emissary*, are designed to assist students' curriculum-based learning during the school day, typically requiring the direct involvement of teachers. Dr. Harris in the *Electronic Emissary* piece argues that more frequent and explicit purpose-setting, progress-reporting, and problem-solving communications are typically necessary on-line than in face-to-face interaction. Personalized communication with mentors whose work addresses school curriculum topics directly can help to make school-based learning more relevant for students.

Establishing a community of practice online is seen both in pure mentoring programs and those mixed with teaching based in educational programs. At the UCLA Extension Writers' Program, the online environment gives developing creative writers and screenwriters a range of opportunities to deepen their participation in the writing communities. At the Australian Catholic University, where pre-service teachers use information and communication technologies to facilitate the sharing of ideas, online mentoring within a community of practice framework serves to unify the practicum. By engaging with one another and sharing expertise, they become active members of a community and at the same time critically reflect on their own skills. At California State University, San Bernardino, the online community of practice provides opportunities for on-going formal and informal interaction among full-time doctoral students and faculty. Additionally, non-traditional mentoring roles can be easily formed in the online space. GEM-SET connects young girls in middle school and high school with "near-peer" mentors in undergraduate STEM majors, graduate students pursuing STEM master and doctoral degrees, as well as professional women with established STEM careers. A "near-peer" mentor is a student one or two years older than the mentee and in some cases offers an easier approach than working with adult mentors. Pedagogically, shared critiques and comments on individual work benefit all. At the UCLA Extension Writers' Program, another distinct advantage that the technology affords is that one-on-one critiques of an individual writer's work automatically benefit the whole class because they are posted for all to read. In the Sino-UK eLearning Programme, an online journal sharing technique involves having one tutor maintain and share an online journal with the other tutors in the course team.

In terms of technology use, those involved in online tutoring emphasize the use of whiteboards and live sound. The TutorVista.com chapter notes the limitations of typing back and forth and the need for a shared live experience wherein the teacher can reinforce and clarify points. Smarthinking custom-designed its whiteboard in order to apply call center and customer service management practices to the delivery of education. Students and tutors can draw equations, plot graphs and curves, or isolate and examine specific passages of text. Specialized tools allow students and tutors to draw symbols used in math and science, and the whiteboard can be saved to a file. Often in tutoring sessions the voice-over and whiteboard features are used in conjunction for real-time instruction. In online mentoring, sound is also used through voice-over Internet protocol or over the traditional phone and is seen as an important

way to effectively communicate with mentees. Sound excerpts from live classroom incidents at the Australian Catholic University are seen as intensifiers. Indira Gandhi National Open University has adopted a multimedia approach to instruction including self-instructional materials, as well as counseling sessions, face-to-face and via teleconferencing mode.

One clear guide that emerges throughout this collection is an emphasis on the careful recruitment, training, and evaluation of tutors and mentors. Quality recruiting and training programs for instructors and mentors are particularly crucial. For example, Smarthinking works with hundreds of online tutors located around the globe, all of whom are professional educators with an average of nine years of teaching experience and advanced degrees. All tutors must successfully complete a ten to fifteen hour online training program that focuses on both technological skill and online instructional practices. Similarly, TutorVista.com hires experienced tutors with advanced degrees as well as teaching experience, and requires them to complete 40 hours of intensive training and pass stringent certification exams. They follow national and state academic standards and curricula and use TutorVista.com's extensive library of online content, question banks, animations and simulations for maximum student engagement and learning. At Sylvan Online, teachers are state-certified and experienced in working with a range of children. The program employs 1,500 licensed teachers for grades 3-12, most with three or more years of experience. All are required to have at least a bachelor's degree and many have specialized certification. Sylvan Online teachers receive a series of training sessions to learn how to use the diagnostic/prescriptive system, interact with students online using the available technologies, and accomplish the assigned lessons. Additionally, many of these organizations emphasize on-going training. At Smarthinking, once tutors have passed training, they become a member of an internal listserv for all other tutors from their department and are assigned to a team. TutorVista.com assesses tutors by having experienced teachers act as students and sign up for sessions.

Tutoring and mentoring online provides new tools for assessment because of the ability to record and document interactions. For instance, all synchronous and asynchronous whiteboard interactions between tutors and students are archived on the Smarthinking platform thus assuring quality control and the implementation of standards. In this way, the online tutoring and mentoring organizations have an extensive portfolio of online interactions that can be analyzed. Other companies use more traditional forms of assessment. Students who enroll in Sylvan Online are given the Sylvan Skills Assessment®, a pre-test that serves both as a basis for placement and the creation of an individualized prescription. Based on a diagnostic prescription, an individually customized program is built and academic performance closely tracked.

Organizational Issues

Third, the cases presented in this book, both of for-profit and non-profit organizations, reveal that efficient business models are very important with online tutoring and mentoring with a special emphasis on reducing labor costs. TutorVista.com's solution is partly to outsource tutoring to India because of lower compensation rates. Smarthinking focuses on an operational infrastructure similar to that of a call center. The fundamental premise behind Smarthinking and TutorVista.com is that an economic model needs to provide cost-effective tutoring opportunities. They founded these organizations to fill a gap between the clear need for tutoring and the inadequate services existing in the traditional educational institutions.

As with all the organizations represented in this collection, Smarthinking's most critical challenge is to scale with efficiency. In order to meet the demand for productivity, Smarthinking implements numerous

internal systems such as an integrated call-center scheduling system which helps to manage the tutors, and even integrates reporting tools that allow on-going analysis of those students waiting for help. The system allows Smarthinking to rapidly respond to changes in demand, create schedules on the spot, and notify tutors of changes in schedules. Managing size is a key consideration for online mentoring organization. At GEM-SET, questions concerning quality versus quantity are said to be at the forefront of every decision. For non-profit organizations with limited resources, the business model is a philosophical and ethical question because it involves decisions about access: who is included or excluded?

Consequently, effective technology is needed both for communication and the management of tutoring and mentoring relationships. Especially for large-scale operations, the efficient management of scheduling is crucial. The core of MentorNet's program is a proprietary mentor-protégé algorithm that is described as a "relationship engine." For its extensive operation, TutorVista.com found it needed a robust scheduling, learning management and teacher monitoring system which the chapter author vividly likens to an airline traffic controller at Chicago O'Hare International airport with hundreds of planes landing and taking off with passengers, while pilots and crew making their way to connecting flights. Most online tutoring services distinguish between instant and scheduled online meetings which brings another level of complexity to the scheduling and management. At TutorVista.com, students can request an instant session called "Connect Now," or book a session scheduling it for a specific time. Smarthinking enables either synchronous or asynchronous tutoring as well.

The development of institutional partnership agreements for online tutoring and mentoring is an important part of the business model for many of the organizations presented in this book. Smarthinking has over 300 direct institutional clients, including schools, universities and libraries. Additionally, students in over 1,000 institutions use Smarthinking via publisher partnerships. As part of its drive to be at the forefront of designing virtual learning environments and online learning experiences, icouldbe.org partnered with UNICEF to manage and implement the Connecting Classrooms program, bringing together students from different countries and cultural backgrounds in a collaborative online space to explore social issues focused on marginalized young people in their communities. TutorVista.com's Library Advantage Program is designed as a partnership to accommodate the tight budgets of libraries. iMentor Interactive is a comprehensive mentoring solution that enables member organizations throughout the United States to launch and manage effectively high-quality mentoring programs and serve a greater number of volunteers and youth program participants. MentorNet has numerous college partners including most of the Ivy League schools, MIT, Stanford, California Institute of Technology, as well as corporations. MentorNet and others describe a business model that puts their organizations between two markets that desire to connect for mutual advantage.

One of the most repeated points heard throughout the cases presented in this book is the strong assertion of the importance of protégé/mentee and tutoring student safety. While there are basic standards for protecting those using online mentoring and tutoring services, the cases here show various specific techniques utilized. For instance, one of the unique features protecting the icouldbe.org community is that mentors and mentees never meet face-to-face—all mentoring exchanges are limited to the proprietary platform. As is true with many of the organizations, communications are filtered and monitored to ensure the safety of both mentee and mentor. Because icouldbe.org deals with children, it also monitors the site to protect against potential bullying. A rigorous content filter flags potentially inappropriate content and messages sent across the system. At TutorVista.com, tutor backgrounds are carefully reviewed and student-tutor exchanges monitored. Parents are also allowed to review recorded online sessions.

Finally, there are challenges to the business models of online tutoring and mentoring. At TutorVista.com for instance, the idea of "foreigners" teaching children is sometimes suspect. The author of the chapter

reported disturbing reactions in schools where special interest groups sometimes disrupt the negotiation of partnership agreements. Additionally, some public policies work against the use of drawing on international online tutoring and mentoring, for instance when requiring physical in-person fingerprinting. Smarthinking caused some controversy when it launched a new venture of credit courses incorporating its online tutorial model called StraighterLine. An article in *The Chronicle of Higher Education* prompted concerns voiced about the impact of outsourcing such educational services beyond the academy.

Although there are clearly common features in the cases, the virtue of a collection such as what follows lies in its variety. Some of what I find most striking in the stories of these firms, organizations, and universities are the features which are unique. While already on the cutting edge, the for-profit firms, non-profit organizations, and universities profiled in this book allude to a number of new directions which may be taken in the future. This may involve new instructional approaches, as well as the use of evolving technologies to provide more impactful mentoring and tutoring interactions. The Internet has broken down boundaries both physical and organizational making one-to-one mentoring and tutoring relationships practical. Although universities possess extraordinary resources in the knowledge of computer technology and pedagogical theory, ironically they have failed to develop effective educational software platforms in general, especially for mentoring and tutoring. Clearly, there is a need for an effort to make important technological advancements that will further open the doors to formal and informal one-to-one learning. The world awaits those who will transform how we learn. It is hoped that these profiles of a distinctive collection of online mentoring and tutoring organizations advances more effective uses of technology to form important one-to-one relationships in new and more productive ways.

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