Dictributed Learning at David Davide University

Distributed Learning at Royal Roads University

A personal touch and ongoing technical support yield high student retention for a school dedicated to distance learning



By Susan Chandler

ecelia David leads a team well versed in the intricacies of computer programs and networking configurations, but her "to do" list won't be found on any hard drive or Palm Pilot. Instead, when adding to her list, she selects a large piece of chalk and faces a blackboard covering one wall of the office she shares with the rest of the Computer Service team at Royal Roads University in Victoria, British Columbia. Her computer is reserved for emergencies only — pastel Post-it notes form a halo around the monitor, with messages like "Must do before noon today!!!" and "Check on this by 4 p.m. at the latest."

David's many "notes to self" are part and parcel of her job as a systems analyst and coordinator of the help desk at Royal Roads. But where a typical university help desk assists students as they work in an on-campus computer lab, her group deals with requests from Toronto, Vancouver, Ottawa, and as far afield as the Philippines and South America. That's

because Royal Roads is a new breed of educational institution, one that states its goal of "increasing access to postsecondary education through distance learning technology" in its mission statement. David and the other 5 fulltime and 2 part-time staff who keep the help desk running 13 hours a day serve as the "911" center whenever emergencies flare up along the Information Highway.

"We have to make sure that students get the technical support they need both on campus and at home or work — wherever that may be," said David. Support in this case can mean anything from helping students log in to a course or access an online discussion group to teaching them how to use applications like Microsoft Word and Excel to installing Ethernet cards and cables on their laptops. "We really try to go the extra mile," she added, "because in a distance environment, the ease with which technology can be used may mean the difference between a student staying in a course or dropping out."

To ensure that staff provide the right sort of help at the right time, the Computer Service team regularly monitors both usage and rates of satisfaction with the services provided. Requests for assistance come in as about 550 e-mails each month, with an equivalent number of telephone calls and walk-ins. Students express their appreciation through glowing reviews: a recent in-house survey showed a score of 4.8 out of 5 when it came to the level of satisfaction with the help desk.

The very fact that Royal Roads has a centralized, technical help desk underlines one of the key differences between it and a more traditional university environment: our learners and faculty rely heavily on technology. A Royal Roads student depends on the Internet and his or her personal computer for more than the occasional research-oriented Web surfing and word-processing functions. Here, students use the technology to

- send and receive educational materials,
- check in to the Web site designed for each course.
- communicate with fellow classmates and the instructor via newsgroups,
- run custom-designed software for peer and self-test evaluations,
- conduct research, and,
- yes, type up assignments before they are delivered into an instructor's electronic "drop box."

Of course, education has always availed itself of the latest delivery mechanisms. When computer technology first began to be incorporated into distance learning programs, the assumption was more or less, "If we build it, they will come." And come they have. The proliferation of distance programs at the university level has been nothing short of phenomenal in recent years. According to the International Centre for Distance Learning in the United Kingdom <http://www-icdl.open.ac.uk>, 96 institutions across Canada now offer a distance learning component towards a university degree. More are sure to follow. While the trend still provokes controversy in some quarters, there can be little doubt that university distance education is here to stay. Indeed, the line between distance and traditional instruction is becoming somewhat blurred as classroom instructors discover that educational technologies can greatly enhance their teaching, too.

Today, the question is how to deliver online education effectively. One measure of effectiveness is an educational program's success or completion rate; but distance learning has frequently fallen short of traditional classroom instruction in this area. While university distance programs tend to do better than those for K-12 students, the drop-out rate remains higher on average than for their counterparts in the classroom.

As the coordinator of distributed learning at Royal Roads, I have an obvious interest in ensuring that we keep our retention rate as high as possible. To date, it's 90 percent — a credible achievement for a university that has distance learning at its core. (For background, see the sidebar entitled "The Royal Roads Story.")

A New Mandate

Created on June 21, 1995, by the Government of British Columbia through the Royal Roads University Act, our institution has an unusual mandate: to be a special-purpose university offering market-driven applied and professional programs developed in partnership with industry and workplace advisory boards. As such, our learning model was designed to hold particular appeal for mid-career professionals who want to advance their skills through graduate studies while balancing the demands of family, work, and lifestyle. It certainly seems to be working — in a little over two years, our MBA program has become one of the largest in Canada.

The university offers two undergraduate degrees (in commerce and environmental science) and a variety of graduate programs, including master's degrees in environment and management, leadership and training, conflict analysis and management, business administration, and distributed learning (a program focused on learning systems and training technologies). In addition, myriad executive programs that run throughout the year can provide credit toward degree programs.

Because of its mandate, the university focused on technical infrastructure right from the start. This has enabled us to develop courses that maintain a practical level of conformity to certain standards. (In other words, we don't reinvent the wheel every time a new distance course is developed.) We use a centralized project management approach involving an instructional designer, a Web support person, a librarian, a copyright expert, and a content expert (usually a faculty member). Developing a course is very much

The Royal Roads Story

From 1940 to 1995, the federal government operated Royal Roads as an officer/cadet training establishment, later known as Royal Roads Military College. The college was closed in 1995, only to reopen later in the year as the newly formed Royal Roads University. Created on June 21, 1995, by the Royal Roads University Act by the Government of British Columbia, the institution's mandate is to be a special-purpose university offering market-driven applied and professional programs developed in partnership with industry/ workplace advisory boards. It grants degrees in a variety of undergraduate and graduate programs, and also offers shorter executive education programs. The university's academic programs focus on four key themes: entrepreneurial management, leadership and learning, conflict management and resolution, and environmental sustainability.

Royal Roads currently has the equivalent of about 1,600 full-time students enrolled in its programs. More than 2,100 credit and noncredit students were served in the past year alone, and the university has graduated close to 1,400 students since its first convocation in 1998. Master's degree programs are delivered through a combination of Internet-based distance learning and short, on-campus residencies. Undergraduate programs are also available online.

Although a public university, Royal Roads is dedicated to the goal of selffunding. It has made important progress toward that end, halving the percentage of revenue derived from government funding (from 80 percent of revenue in 1996-97 to 37 percent of budget in 2001-02). Royal Roads is well below the Canadian university average of 55 percent of revenue from government grants.

Royal Roads' Web site is http://www.royalroads.ca.

a team effort that draws on each member's expertise. We also ensure that software and Web sites conform to minimum and maximum technical specifications so that learners can access materials without too much anxiety.

Interconnectedness is so critical to the Royal Roads learning structure that it forms a component of each student's "contract" with the university: a learner must own or have ready access to a minimum assortment of computer hardware and software (see the sidebar "What It Takes to Tune In"). Last, but not least, we provide a high level of support for all of this through our help desk. Students appreciate the service, but they also expect it - when something doesn't work the way it's sup-

posed to, the complaints are immediate and forceful.

Getting It Right

The university uses a team-based distributed learning model that integrates a number of technologies to provide the capacity for activities and interaction in both asynchronous and realtime modes. Besides our emphasis on getting the technology right, however, Royal Roads has made a point of getting the people part right, too. The university offers its degree programs within a framework that combines short, intensive, on-campus residencies, with the balance of required work completed through Internet-based distance learning. This combination is unique, and, to my mind, it provides the vitally important human connection - one of the key reasons for our remarkable retention rate.

At the graduate level, students are introduced to their chosen field of study in the first of what will eventually be as many as three residencies on campus (typically, a residency lasts from three to five weeks) over the course of a two-year degree program. Even before students arrive, they are preselected into teams according to criteria such as location, gender, professional background, and so on. We generally assign 5 students per team and 30 to 50 students per cohort (the term used for a group of learners moving toward the same degree at the same time). A team lasts throughout the life of the program and completes a sizable number of assignments together much as most work-related projects in "real life" involve team participation.

When a cohort arrives on campus, students attend a two-day bridging session with David and her team on how to use the software and communications systems required to complete the program. Typically, a student will access a Web site for each course and use discussion groups to communicate with other team members.

Students will also meet many of the department's faculty members, including the core faculty (who are based on campus) and a number of distance faculty (who, like the students themselves, may be located any number of time zones away).

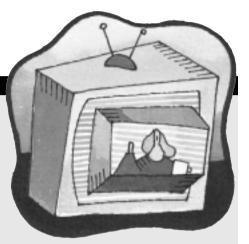
Several courses begin at this stage, as do team projects. Perhaps just as important, the students will participate in a variety of social networking opportunities made available by the department, including golf tournaments at a nearby course, ocean kayaking along the shoreline that skirts the 565-acre campus, and so on. In other words, the very first component of this "distance program" comes down to plenty of old-fashioned, face-to-face interaction.

Following a student's initial residency, the first distance learning session begins. Before leaving the university, students receive their course packages, which might include textbooks and other materials such as videos and CD-ROMs. The demands on the learners' time during the distance sessions will vary depending on an individual's familiarity with the subject matter, but most students spend about 10 to 15 hours per course each week.

Student feedback is necessarily more comprehensive at Royal Roads, with much of it done online. We ask for student input on what they like and dislike about the structure of their programs, the quality of feedback they receive from their instructors, and their satisfaction with individual courses, for example. From this input we know that the team structure is critical to keeping students focused and motivated.

"Studying alone day after day can be an isolating and mundane experience," noted Gerry Kelly, president of Royal Roads. "Our vision was to build a learning community in 'real time' one that could operate both on and away from campus."

Kelly believes that the toolbox of online instructional strategies, supported by staff and faculty, enables learners to engage in debates and discussions, work collaboratively in teams, and recognize and use the expertise and experience of their fellow learners. "In this, they mirror the reality of the new global marketplace," he said, "one in which colleagues from far-flung national and regional offices - come together initially to identify complex challenges and later,



What It Takes to Tune In

To keep technical systems running as smoothly as possible, Royal Roads itemizes the computer hardware and software configurations required to participate in the university's distance learning programs. This list forms an important component of each student's "contract" with the university — in effect, the learner guarantees that he or she has the equipment necessary to meet course obligations and obtain the degree.

For its part, the university provides technical support to faculty and students through the help desk (which runs 13 hours a day), but only for configurations specified in the list of minimum requirements. Royal Roads does not, for example, support Macintosh computers (as several learners have discovered to their detriment after assuming that they could work around the specifications).

The list of requirements is amended annually in the university calendar (for new students only). The Information Services and Resources department at Royal Roads tries to keep pace with emerging technologies while managing developing technology to avoid

delivering courses that are too "beta." One person in the department is dedicated to innovation, and we have reqular discussions concerning the pros and cons of when to bring a new technology on board. This year, for example, we looked at using video streaming, which has great instructional value. For the time being, however, we've decided to hold off because the technology remains beyond the bandwidth capacity of many students' equipment.

According to the 2001-2002 calendar, a student must have the following minimum computer hardware and software configurations:

- Pentium 200 processor
- 32 megabytes of RAM
- 3.5-inch HD diskette drive
- Super VGA monitor
- Mouse
- Sound card, microphone, and speakers
- 8X CD-ROM drive
- 56K or cable modem
- 100 megabytes of free disk space
- Windows 95 (US English Version)
- Office 97 (US English Version) In addition, all learners must have

Internet Explorer 4 as a Web browser and a connection to an Internet Service Provider that includes

- HTTP protocol for Web access
- NNTP protocol for news access
- Pop/SMTP protocols for e-mail access
- Telnet protocol for telnet sessions
- FTP protocol for file transfers
- Ability to send and receive these five protocols to and from Royal Roads University servers
- A variable number of hours of connect time per week, depending on course content and the preferred method of study
- Unlimited e-mail and newsgroup posting capability (that is, no posting size restrictions)

See the university's Web site at http://www.royalroads.ca.lsr/ calendar/compreq.htm> for recommendations regarding new equipment purchases.

thanks to technology, work from a distance to execute projects and interact as virtual teams."

"I think the high retention rate at Royal Roads is definitely related to the team structure," confirmed Deborah Wickins, the manager of MBA programs at the university. "Peer pressure goes a long way to getting students to complete their assignments, but team members also provide each other with a great deal of support and encouragement. We hear this over and over again."

As an example, Wickins mentioned that when one student is overwhelmed at the office with work, other team members will frequently pick up the slack on a Royal Roads team assignment. "Of course, when a team has one or two members who abuse this system, it can become a real problem," she admitted. "In response, we have developed an online peer evaluation application that allows learners to provide feedback on how well the team is working."

Wickins also pointed out that when problems of any sort arise, distance adds another wrinkle to the resolution process. "You just have to think about what 'virtual resolution' means," she added. "It's not really resolution at all. Learners' feedback often concerns communications issues, and conflict and communication are much more difficult to navigate by distance. You can't read a person's face or tone of voice, and people can avoid their responsibilities by just disappearing and not responding to other people's e-mail and voice-mail. That's why the benefits of residency and face-to-face interaction offered throughout the program are so crucial."

Faculty Support

Most students indicate that the flexibility of completing a degree while maintaining "regular life" at home and the office more than makes up for some of the pitfalls of a distance education. But more convenience for learners can mean less convenience for those who provide the service. At Royal Roads, faculty members (both core and contract) indicate that distance learning often entails more work on their part than classroom instruction. That's partly because the latter not only provides economies of scale, it also offers more cues for the instructor about who is "getting it" and who is not.

"With distance education, silence usually means trouble," said Chris Duff, a chartered accountant and core faculty member who teaches accounting in the MBA program. "You have to be proactive as an instructor in this environment because you can't ever put a student in the position to say, 'Nobody contacted me; I was left to rot.""

Duff had to follow his own advice when his accounting course swelled to more than 100 students during his first summer session. Where a classroom ratio of 20 students to one instructor is considered desirable. Duff sailed into uncharted distance territory. He had to contract another individual to help mark assignments, but even so he worked seven days a week and missed his summer vacation in order to keep pace with student queries and requests for feedback on assignments. "I wouldn't want to do that again," he said in retrospect, "but we surveyed people after they had completed the course, and they said they received good service."

Since then, the university has introduced an extensive five-day program for faculty members that includes a technology bridging session (similar to that offered to students). Faculty also get training in online course development, online facilitation, and how to use the library databases.

Regarding facilitation, Duff sees the human touch as an essential element in providing good service. "People don't like to ask questions of someone they don't know," he observed, "so when students are here for their first residency, I make sure to participate in the team-building exercises and social events. Learners also receive five hours of face-to-face instruction in accounting, which helps to establish a personal relationship."

Another element behind good service involves technology. "Our learners are not people with a lot of time on their hands," he explained. "They want the maximum number of study tools and aids." To that end, Duff worked with the Distributed Learning Unit to develop a CD-ROM for learners to take home after their first residency. It provides video clips of him talking about key content areas, plus selfassessment exercises in accounting. "I don't have training as an actor," Duff commented, "so this was highly experimental. But I was pleasantly surprised at how positive the learners were about this product. We're hoping this resource will appeal to a range of learning styles and give students another way to understand key concepts and information."

Like Wickins, Duff pointed to conflict resolution as one of the trickiest issues involved in distance learning. "It's much harder to resolve a problem by e-mail if someone is really angry. In fact, the medium seems to magnify anger," he added. "If a student expresses frustration, I'll usually call them on the telephone, simply to lower the level of hostility right off the bat."

Having taught in traditional classroom environments before (at the nearby University of Victoria), Duff believes the personal touch is even more essential in distance programs like those offered at Royal Roads. "Even in the classroom, students don't want to be just a number," he pointed out. "Here, they come right out and say, 'We want more personal attention.' We try and meet that request."

I believe that the human touch is what differentiates Royal Roads from other distance learning universities. From the bonding that develops during the students' initial residency to the telephone calls from faculty to the friendly voice on the help desk phone line, we do our best to ensure that distance never means isolation to the lifelong learners at Royal Roads. *e*

Susan Chandler (Susan.Chandler@Royal Roads.ca) is Coordinator of Distributed Learning in the Information Services and Resources Department at Royal Roads University in Victoria, British Columbia, Canada.