Surviving **Crisis** Mode

What would you do if your school were closed for weeks at a time? One school shares its story of how it used the Web to provide social and educational support to its students when it was shut down to prevent the spread of SARS.

In April 2003, the government closed all schools for several weeks in Hong Kong to halt the spread of the virus causing Severe Upper Respiratory Syndrome (SARS). In 2004, schools in Indonesia and Saudi Arabia closed down for weeks at a time because of potential terrorist strikes. School leaders need options to continue to provide the educational and community support services families rely on. This story offers one option put forth by the teachers of Hong Kong International School (HKIS), focusing specifically on the efforts of the upper primary teachers. HKIS serves 2,600 students from the local and international populations.

With many schools located where there are threats of widespread violence, potential for epidemic diseases, and political instability, it is clear that they can benefit from the recent advancement of Web-based learning initiatives around the world. The

By David Carpenter

Subject: Online learning

Grades: 3–5 (Ages 8–10)

Technology: Moodle, Web

Standards: *NETS•S* 3; *NETS•T* II; *NETS•A* II (http://www.iste.org/nets/)

closure of HKIS because of the threat of SARS really pushed the school to plan for and develop new tools to enable teachers to provide online learning opportunities for their students in the regular curriculum and in case the school would need to close down again. The closure of HKIS made us be more strategic in our planning. Our opening of the virtual school is the first of three phases leading us to be better prepared if and when we must go virtual again.

Phase 1

With little preparation for meeting the demands that distance education entails, teachers in the four grade-level divisions of HKIS came up with a plan to create a Web-based learning environment. With a portion of the student population returning to their home countries, some traveling to nearby holiday spots, and the majority of students staying in Hong Kong, the virtual school we created needed to be accessible from all points on the globe.

The staff of the upper primary school (Grades 3–5) collaboratively developed uniform lessons by grade-level teams as opposed to having each teacher go it alone. The decision was vital because the immediate and sudden development of a high-quality program would benefit from the time, insights, and creativity of teamwork.

Teachers were able to draw on the skills of our faculty's technology integration leaders to obtain Web-based resources, design and upload Web pages, and/or explore new technologies.

Grade level design teams followed the guiding philosophy of what we called the three C's: communication, community, and content (interactive). Our main tools in support of the three C's were Web sites, WebQuests, wikis (Web sites that are fully editable by all users), e-mail, phone, and fax. We also realized the importance of keeping the delivery of lessons as simple as possible. Many of our students and parents would enter the virtual school with basic technology skills and in some cases, limited access to computers (e.g., at an Internet café).

We wanted to make sure our students felt connected to each other, their teachers, and their upper primary school. The virtual school was as much about providing emotional and social support as meeting educational needs. Teachers posted assignments

Our opening of the virtual school is the first of three phases leading us to be better prepared if and when we must go virtual again.

The virtual school was as much about providing emotional and social support as meeting educational needs.

Making each day seem like a real school day contributed to students' sense of normalcy.

Virtual school opened a great many eyes, especially in the upper primary school, to the effectiveness of using technology to make teaching even more interactive and engaging, thus capturing the interest of students who enjoy the speed, interactivity, and creative possibilities the Internet provides.

and messages on Web sites and sent copies out by e-mail. If students were not able to access the Web or e-mail, teachers phoned or faxed the parents. We developed assignment templates, checklists, rubrics, and calendars with clear and concise language. Assignments and expectations were communicated as clearly as possible on Web pages and in e-mail messages.

From the outset, the virtual school provided a strong sense of community. This was extremely important to our families and our staff because members of our community were under emotional distress resulting from sudden evacuations and the self-isolation brought on by the spread of SARS. Teachers worked to connect students to each other by giving assignments that led to virtual cooperative learning. They posted examples of student work/messages on Web sites and/or wikis. Parents shared that it was very motivating for their children to view classmates' work published on homeroom Web sites. They reported that it diminished the sense of isolation students felt holed up in their apartments or living temporarily far from Hong Kong.

Our team of educational specialists in the fields of science, instructional

technology, counseling, extended learning, and library media worked as consultants in this environment where everyone found a place to shine and benefit faculty members in need. Even if teachers had never developed a WebQuest before, they proved to be quick studies and developed their own with amazing speed. Although we could not re-create the dynamic nature of an elementary classroom, the staff did their best to make content engaging for children and consistent with teaching objectives of units planned before the need for a virtual school arose.

Making each day seem like a real school day contributed to students' sense of normalcy. The postings by our art, PE, Chinese studies, music, and extended learning teachers and librarians were very important. The school counselor, nurse, psychologist, and resource teachers reached out to students and parents, offering their expertise through phone calls and e-mail. We learned that some of our parents organized daily student get-togethers where students completed their schoolwork. Our library never closed, so families continued to have access to learning materials if they desired to pay a visit, and many did.

When the government re-opened schools, HKIS teachers could say they made a good first effort at providing Web-based virtual learning to our community. It required tremendous effort to change our teaching and learning strategies for electronic delivery. We all (especially parents) really missed "regular" school. But the challenge increased our staff's understanding of technology, Web-based resources, and the value of collaboration.

We made a huge leap in our teacher buy-in to using technology in their teaching. The virtual school opened the door for further advances in using technology to support learning in the regular curriculum as well as to prepare us for the possibility of the virtual school re-opening at some point in the future. It became clear that these two objectives would be guiding us as we planned for the future.

Phase 2

The second phase of our movement to have an improved virtual school in place began in May 2003 as our divisional instructional technologists met with our technology administrator, Francis Thong, to review our efforts for the virtual school and to map out a plan of action to build on our experiences. Our technology infrastructure was strong with a huge Internet presence. However, our Internet presence lacked uniformity. It needed an

individual to provide leadership in leveraging it as a communication and instructional tool. Thong was already in the process of hiring a schoolwide Webmaster who would take on this task.

Sarah Woods was hired in June 2003 as HKIS Webmaster and given the immediate task of assessing how to configure our vast collection of Web sites to best meet the online communication needs of our community. Woods quickly jumped into the leadership role of looking down the road to see how we could be better prepared if the school had to close down again. She pointed out that being ready for school closure and a reopening of our virtual school would mean that our students, teachers, and parents would already need to be experienced and comfortable in using any new online instructional and learning tools that we would come up with. This fit perfectly with fulfilling our first goal of improving our usage of online instruction and learning tools in our regular curriculum.

Our high school, under the leadership of their instructional technologist, David Elliott, had already developed such online tools as survey builders, message boards, and class forums. These tools were developed one at time, but efforts were now being made to combine them into one interface. The teachers, students, and parents at the lower and upper primary schools had no experience in using these tools. Until the virtual school, no one felt the need for elementary students to post online messages or blog about their latest social studies topic. Virtual school opened a great many eyes, especially in the upper primary school, to the effectiveness of using technology to make teaching even more interactive and engaging, thus capturing the interest of students who enjoy the speed, interactivity, and creative possibilities the Internet provides.

We knew our users would need their digital tools bundled together in a very easy-to-use platform. Products such as WebCT or Blackboard could provide the functions we wanted in an online classroom management product. However, the nature of the approach to meeting the technology needs of our community at HKIS is to develop from within to save money and to craft our designs to the specific needs of our population.

Our teachers need a product that provides a comfortable authoring environment, such as Word. Woods researched possible solutions and found the answer in a free, open source software called Moodle. Moodle is a virtual learning environment (VLE) tool developed by Martin Dougiamas, who got his start in education as a Webmaster in a university setting.

As is pointed out at http://www. moodle.org, "one of the main advantages of Moodle over other systems is a strong grounding in social constructionist pedagogy." Knowing that learning thrives in a social context, we wanted tools to help us build community whether our students are in or out of school. Thus, Moodle, with its collection of Web tools that build online community and offer opportunities for sharing and reinvention of ideas, clearly fit our virtual instructional and learning needs.

Our teachers find Moodle easy to use. Once the Moodle administrator adds the teacher's name to Moodle, his or her Moodle page is automatically created. The teacher simply logs in to this page either at school or home. He or she finds the structure of the Moodle Web page already

We made a huge leap in our teacher buy-in to using technology in their teaching.

Whether it be an outbreak of disease, a natural disaster, or political and social unrest, a crisis must not stop schools from meeting the learning and social needs of their students.

built. There is no need to use a WYSIWYG authoring tool. Moodle users move into content management mode and start uploading Word documents, images, and sound files to create a virtual resource center. They then choose from a menu of tools to create online learning experiences for their students.

Students use their school ID and network password to log into their teacher's Moodle page. They then can interact with the different digital tools the teacher has created. The following is a listing of the instructional and learning tools that teacher designers can use:

• Workshop
• Quiz
• Journal
• Survey
• Chat Room
• Forum
• Assignment
• Resource (e.g., video, documents, images, Web links, wiki)
• Workshop
• Lesson
• Glossary

Virtual school proved that many of our elementary school students and their parents could successfully interact with online learning tools. The next step is to see how they interact with the learning experiences that our teachers can create through Moodle. The teachers are already using non-digital journals, glossaries, quizzes, discussion groups, and so on in their classrooms. They have the content for these instructional strategies. We will now see how to best transfer that content over to an online learning environment that is comfortable for elementary students to use. Although this has been done and documented at the university and high school levels, there do not seem to be many cases of offering such experiences to an elementary school population.

We introduced Moodle to our teachers in an ongoing series of workshops in spring 2004. This second phase of our effort to be ready for a possible re-opening of the virtual school will continue over the summer and into the fall as our early adopters establish their Moodle pages. We will continue the workshop introductions to Moodle starting in September as we work to plant the "interest seeds" among our upper primary staff.

....

Phase 3

Our plan is to work with the early adopter Moodle users to assess what functions work and don't work for our third to fifth graders. We also are keen to see what creative ways our teachers apply the Moodle tools in their classrooms. We will ask such questions as:

• How is managing an electronic journal different from managing a paper one for your students?
• Are the same students who are most involved in classroom discussions the same as in your online ones?
• Does the online environment enable you to better tune in to students who tend to be more shy, reserved, or not talkative in class? (During virtual school many teachers noticed that students who were previously the quiet ones found more of a voice in online activities.)
• How is paperwork cut down by using electronic assignments?
• What features in Moodle enable one to better individualize assignments or tier them for different levels of learners?
• What evidence of engagement in learning does Moodle provide?
• How does your online presence affect parental involvement?
• How does Moodle affect your sense of community?
• In what ways does Moodle save the teacher or the parent time? Or does it add more to your plates?

• How (if at all) does Moodle replace activities that you were doing in class?
• How has Moodle changed the way you teach?

We will then use this information to support other teachers just getting the hang of using Moodle. Our hope is that more and more of our students and their parents will gain experience in using the tools that Moodle offers. This process will support our goal of integrating technology into instruction while providing more virtual learning opportunities for our students. Once this goal is met we will then be achieving our second goal of being better able to provide for virtual learning in case of school closure as our students, teachers, and parents will already be comfortable with the variety of online tools.

This process for HKIS of moving to having more virtual learning capabilities came from a need that is very real for many schools. Whether it be an outbreak of disease, a natural disaster, or political and social unrest, a crisis must not stop schools from meeting the learning and social needs of their students. As life for many expatriate communities centers upon their schools, it becomes even more important for international schools to create plans and develop the tools to provide ongoing services for their families. Our teachers at HKIS proved that the 3 Cs offered virtually can make a real difference educationally, socially, and emotionally for a community that faces a crisis that closes their school.

David Carpenter works as the instructional technologist at the Hong Kong International School's upper primary school. He greatly enjoys the creativity that comes from collaborating with fellow teachers to best meet the learning needs of the students and finds great wonder in observing how young children can use technology to share their learning and ideas.