



THE RELATIONSHIP BETWEEN government and IT is changing before our eyes. One recent and spectacular example is the alleged violation of a publication ban by Canadian “bloggers” who linked to an American website carrying forbidden information from the Gomery Commission – it took just over a day for the secret testimony to be available around the world to anyone with Internet access. Of course, within minutes people at the hearings were already transmitting information about the banned testimony over the Internet, cell phones, wireless-equipped laptops and BlackBerries. How long does a cc. list have

to be before a “message” becomes a “broadcast”? Is posting a link or telling people how to search for the link really a violation of a “publication” ban? The courts may decide but in the meantime, the information genie is out of the bottle.

This IT section’s look at the new information age may be less dramatic but it is every bit as intriguing. A feature story on three different teaching simulations shows the real power of “make believe;” Barbara Webber looks at Nova Scotia doctors who are without borders; while Jeff Jedras looks

Focus on Information technology



at international information flows, privacy and the potential impact on government procurement. On our behalf, David Eadie plunged into the wild world of government communications and the Internet. From movies on cell phones to interactive online quiz games, there is now a medium for every message.

Richard Bray

Radical representation

by Richard Bray

Simulation-based training is quickly moving into the education mainstream. Powerful computers and high-speed Internet bring data, voice and video right to the learner’s desktop. As the following scenarios show, when on-the-job learning is too expensive, impossible to schedule or downright dangerous, simulations bring intense reality to virtual training.

A heartfelt thank you is extended to the Ottawa Heart Institute for inviting Summit staff to attend a training session using the patient simulator depicted below. Photo by A. Phillips.



SAM – a virtual victim

THE VIDEO SHOWS a hospital room where an anesthesiology resident consults with her team. The patient’s vital signs are superimposed onscreen.

“Watch closely,” says Dr. Robert Elliott as he narrates his young colleague’s training session. “She turns her head – bingo!” On screen, the familiar jagged line of the patient’s heartbeat has suddenly flat-lined. Without warning, her patient is dying. For a long moment she stares at the heart monitor. Elliott, an assistant professor of anes-

Simulations bring learning to life

esthesiology at the University of Ottawa seems almost amused by the potentially tragic situation. “She just doesn’t believe it.” The young doctor hesitates, but Elliott says, “She’s doing everything right. It’s just coming slowly. This is a junior resident, right?”

And her patient is a mannikin, a very expensive and very realistic machine that can simulate a wide range of patient distress. As Elliott says, SAM, the simulated anesthesiology mannikin, is no ordinary dummy. He has a functioning nose and airways, pulses that can be felt and lungs that actually breathe. Doctors in training can insert intravenous lines in SAM and inject medication. His thumb even twitches in response to stimulus.

Before SAM, anesthesiologists could train for years without ever seeing certain particular medical conditions. With SAM, instructors can throw everything at them in a safe, simulated environment – again and again. Some human intervention can ‘help’ – from a nearby control room, the person playing the ‘surgeon’ can be coached through an earpiece about the best way to ‘panic’ and push the student anesthesiologist’s stress levels even higher.

For anesthesiologists, group skills are as important as their technical training. They must learn to be surgical team players, coordinating instead of competing with sur-

geons. Videotape of simulated training can expose areas for improvement.

Keeping the records straight

FILED RECORDS IN a federal government office may seem to be a long way from decision making in an operating room, but Janice Francisco has a good way to get people’s attention. Do it wrong, she says, and you go to jail.

A training consultant with BridgePoint Effect, Francisco is working with Chantale Cobbold of Health Canada to ensure that record keeping gets the time and attention it deserves. It’s not easy. Personnel retention is a major issue in the records management field. “The turnover rate is about 40 percent on average,” she points out. Not surprisingly, “Everybody thought that records management was boring.”

Governments have become much more serious about record keeping in recent years. The challenge is to move record management from the corner of the desk to the top of everyone’s mind.

“We wanted to be provocative in our approach,” she explains. “We want records management to be sexy.” The result was Recordology, an e-learning program delivered right to the desktop for two and a half to four hours of self-paced learning.



Best and worst case scenarios and decision-based information management simulations link actions to consequences in a direct way; as employees make decisions, the dollar cost of what they are doing is displayed right on screen. One scenario shows careless document management dragging the department into a messy lawsuit, total cost almost \$2 million. Another simulation shows proper records management limiting the cost of a potentially troublesome Access to Information request to a reasonable \$1,000. The simulated training is interactive and incorrect quiz answers bring immediate feedback.

Health Canada's Chantale Cobbold points out that the Recordology program was designed to be flexible and adaptable. "So, we can update our policies easily and other government departments have looked at what we've done. In fact, it is being offered to other departments at no cost."

And the cost to the taxpayer is reasonable as well – at about \$18 to \$25 per person.

Dude, where's my car?



WHEN THE AUSTRALIAN navy installed a new ship simulator from Kongsberg Maritime Naval Simulation, officers celebrated with a 'cruise' into Sydney Harbour. It was so realistic that after 'docking,' one admiral wondered how he would get back to his car, which was, of course, right where he was – still at the simulation centre.

Necessity made Canada a world leader in marine and naval simulations. Severe military budget cuts reduced real officer training time onboard ship to a minimum, so simulations had to be as realistic and as cost-effective as possible. Kongsberg is now the sole supplier of bridge and navigation simulators to the Canadian navy.

Around 2000, the company faced a decision point about delivery – over the Internet, with everything hosted on central servers, or as a complete software package that could run on most modern compu-

ters. They opted to put the full package in students' machines. Says Serge Coté, the company's senior project manager for e-learning, "We decided not to 'dumb down' our simulators." The strategy still includes the Internet, however, as students log on to their organization's learning management systems to download assignments and upload their completed exercises.

Marine simulators can be literal lifesavers. The Canadian Coast Guard Pacific Region maintains a 1,400-member corps of volunteers, from professional and retired sailors to 'weekend warriors' familiar only with personal pleasure craft at best. If the latter remain untrained, Coté said, "We're pretty sure, eventually, that somebody could get killed." Simulation provides the ideal alternative to expensive classroom training. "After they kill themselves a few times on the simulator," he said, "they'll probably figure it out." ■■■

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