The professor of "telepreventive medicine"

The Supercourse website collects hundreds of lectures on public health delivered by a global faculty of experts. Its founder, **Ron LaPorte**, tells **Gavin Yamey** about running a "university without walls"

When an earthquake hit Iran on 26 December 2003, killing over a third of Bam's population of 90 000 people, Ron LaPorte, professor of epidemiology at the University of Pittsburgh, Pennsylvania, knew immediately what he had to do.

LaPorte runs the Supercourse, a freely available online library of about 1700 lectures on public health. Within three days, he and his colleagues had uploaded an authoritative lecture on the health consequences of earthquakes, written by Eric Noji, a world expert on responding to disasters.

Noji's lectures now sit alongside those on tornadoes, avian influenza, bovine spongiform encephalopathy, severe acute respiratory syndrome, and other public health crises. These lectures, says LaPorte, with his characteristic boyish enthusiasm, have "enormous potential to reduce fear and save lives."

All the lectures are written by members of a networked global community of 13 000 scientists—including six Nobel prize winners—who are committed to what LaPorte calls "telepreventive medicine."

The lectures are presented in a slide format compatible with PowerPoint. They are aimed at "teaching the teachers" of public health, particularly in universities and secondary schools. Funded by the National Library of Medicine and the National Institutes of Health, the Supercourse is managed by a team of public health graduates based in Pittsburgh and a webmaster (who is also a cardiologist) in Siberia.

One of LaPorte's big concerns is to tackle the "information deficiency" in developing countries. But there are major barriers to people accessing the Supercourse lectures in poor countries.

"Developing countries' bandwidth is so low that they can't download them [from the main server]. It takes 12 hours to download one lecture. And in China it costs two to three times more to surf internet sites outside the country." The answer to both problems was the Supercourse "mirror sites."

"We decided to develop a system of dropping the Supercourse into different [computer] systems around the world. So the same content is now on local servers." These include servers in Mongolia, Sudan, Nepal, and China, mostly housed in universities or ministries of health.

To try to reach the 93% of the world's population who don't have internet access, a compact disc version of the Supercourse is distributed worldwide. "We ask everyone to copy it and spread it around. Every health professional in Cuba has access to it."

Faina Linkov, Supercourse coordinator, said that the next step in raising the project's profile is to use mobile phone technology.
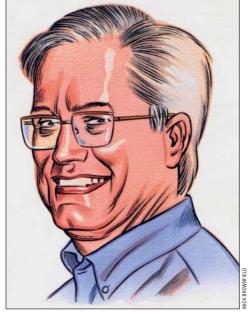
"In Ukraine, the average [monthly] salary is $100, yet everyone has a cell phone, and rural areas all have a television. If we can put a lecture into the phone, then into TV, a whole school district could be exposed to health information."

Spending time with LaPorte, you learn a whole new vocabulary of expressions that capture the Supercourse vision. The online lectures signal "death to distance" (it doesn't matter whether a student is in the next classroom or the next continent). The lectures move away from the "sage on stage" approach to lecturing, where the wise teacher pontificates in a classroom.

They also offer the opportunity for "mass customisation." A generic lecture on earthquakes, for example, can be rapidly tailored to give local information. The Supercourse is partnering with the daily newspaper *USA Today* to provide school teachers with customised lectures on disasters hyperlinked to the article in the paper.

The greatest challenge in spreading health information, Laporte says, is "reaching the last mile." How do you reach those in the poorest, remotest parts of

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the world? One of LaPorte's more radical suggestions is that a community might pay people to become "microinformation brokers." They would download information about both agriculture and health—from a computer many miles away—and then share their new knowledge back in the community.

LaPorte has come a long way from his initial experiments with the internet in the early 1990s. With help from the National Aeronautics and Space Administration, he created one of the earliest internet home pages, which connected public health workers and captured public health links. "But I realised this wasn't going any place. I decided distance education was the way forward."

A doctorate in cognitive psychology made him appreciate the ways in which people process information. He describes the Supercourse as a "hypertext comic book" that has recognisable icons and links to allow readers to "go deeper."

"While a journal article is linear, we can be multidimensional." And while it takes years for researchers to share their findings via medical journals, they can share them immediately by posting a lecture on the Supercourse.

But don't journals, with their peer review system, at least have some kind of quality control? It's a question that he finds exasperating. Before being published, the global faculty reviews the Supercourse lectures. And after publication they are evaluated by its users, a system of reviewing that mimics the successful model used by Amazon.com.

"In 10 years' time, all academic lectures will be on line. Our role is to be a gateway, with quality control, to these lectures."

One of the biggest challenges that the Supercourse faces is updating the content.

Two strategies are used to "increase the shelf life of the lectures." The first is encouraging several lectures on the same topic, allowing teachers to create their own teaching session by picking and choosing slides from old and new lectures.

The second strategy is for each lecture and each slide to have a "pocket" into which new comments or slides can be added.

Critics of the Supercourse would say that just disseminating health information isn't in itself enough to improve health. LaPorte feels it is unfair to hold the Supercourse to a higher standard than university lectures—or indeed medical journals. "Can you show that articles in the *BMJ* save lives?" he asked.

"I don't see a problem with sending out good health information." And given that the Supercourse gets an estimated 75 million hits a year, its users would probably agree.   □
GavinYamey *BMJ*