



## **Cyberspace Songlines: Building Trails to Learning Communities**

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**I**n the Australian Aboriginal Creation Myths, the creation story is written like a book in the earth's topography in the form of Songlines, tracks that extend in all directions across the entire continent of Australia, giving pattern and meaning to life. These tracks — or Songlines — connect localities with each other and with mythic episodes from the Dreamtime, the time of creation, associated with them. Rocks, streams, water holes, mineral deposits, and other natural landmarks all illustrate mythic stories dating back to the Dreamtime; together they are like beads on a necklace of interconnecting strands: the Songlines. No local group of Aborigines "owns" a complete mythic Songline: each group "owns" only a section of these pathways and each group shares with other groups the responsibility for carrying out the ritual singing necessary to preserve the Songlines in their entirety. Thus the Songlines are a network of communication, cooperation, and cultural exchange among people separated by immense distances. By means of ritual singing, Australian Aborigines invoke and honor the mythic map of the Songlines, with all its meaningful landmarks, as they travel across the terrain (Chatwin 1987; Hall 1992). Today the concept of Songlines provides a useful metaphor for examining the Internet, which is a vast new cyber-territory that connects information, ideas, products, services, people, and virtual communities — including virtual-learning communities.

Stephanie Pace Marshall (1997) urges that in the twenty-first century, we must create ecological learning communities that are "built upon a foundation of connection, coherence, mutually created meaning and purpose, dynamic relationships, and the evolutionary nature of the human experience itself." Similarly, Kenneth Dowlin, (1997), the first librarian of the twenty-first century, suggests the key themes we face in cyberspace are community, communication, and collaboration. Oddly enough, these are the same themes that are central to the Aboriginal culture — along with stories, which are embodied in the Songlines.

As we seek to take advantage of the Internet, we need to think in terms of mapping relationships, not merely destinations. Trails —

Songlines — are reference points, like the sun and the stars, that help us find ourselves and each other, that help us to understand both the new and the familiar. Trails provide a configuration to support relationships. Trails connect places. They provide us with thematic and conceptual connections. And, they provide us with human connections.

Community, communication, collaboration. The Internet is a new medium of communication; actually it offers a rich panoply of communication options (text, audio, video, animation, graphics, virtual reality). This new medium offers a wealth of opportunity for collaboration. And this new medium provides cyber-routes for a wealth of community building — virtual communities dispersed across a university campus or across the globe.

This paper will describe several different virtual learning communities that have emerged or are in the planning stages, including: (1) university classes offered entirely via the Internet to students throughout the U.S. and Canada; (2) legal resources on the Internet; and (3) an international conference with a World Wide Web CU-SecMe videoconferencing component linking sites on five continents.

### Internet-Based Classes

Over the past two years, I have taught several graduate-level university courses entirely via the Internet to students throughout the United States and Canada, on: (1) information design; (2) psychological implications of the Internet; (3) scenarios and information planning, and (4) identity design. These Internet classes center around three components: (1) a listserve — an automated electronic mailing list for everyone in the class, including the instructor; (2) a class web site where the syllabus and weekly “cyberlectures” are presented; and (3) electronic mail for communication between individuals (supplemented by the telephone). Several other Internet courses are planned; their implementation is described in McLellan (1997) and McLellan (1998).

These Internet classes are designed as collaborative learning communities, based on a model articulated by journalist and educator Michael Schrage (1991, 1995). Schrage (1991) explains that:

Collaboration is the process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own. Collaboration creates a shared meaning about a process, a product, or an event . . . Collaboration can occur by mail, over the phone lines, and in person. But the true medium of collaboration is other people.

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Schrage emphasizes that in a collaborative relationship, the creation of value is the central issue; communication and teamwork exist to support this.

This model is ideally suited to the virtual-learning community. A student in one of the Internet classes reflected, at the end of the class,

I learned to rely on others, in this case my classmates, as valuable sources of new ideas. I found this group in particular, and SLIM students in general, to be exceptionally bright and creative. I was led into new ways of thinking about things by the ideas my classmates had and was constantly impressed by their knowledge. I have a tendency to prefer to work on my own but have changed my mind about that. I now feel that it is imperative to look to others for new ideas to expand my own ideas.

Another student commented,

The 'public way' that Prof. McLellan chose to receive the homework assignments was a very new style through my schooling. This forced me to be spontaneous, well prepared and then [adapt] to any criticism or appreciation. The most obvious outcome of this style is the courage I got to display my thoughts in any environment.

Some might think a situation where students and instructor never meet would be austere and alienating, but this is far from the case. The framework of the Internet class is critically important. Some valuable elements that serve to set the stage for a convivial and close-knit virtual community to emerge include: (1) implementing assignments designed to introduce students to each other at the beginning of the class; (2) creating a student Web page with brief student biographies, pictures, and e-mail addresses; and (3) having students post many of their assignments to the listserve for everyone (not just the teacher) to read and respond to. The listserve is critically important. It serves as the central meeting place for the class. Even though most homework assignments are submitted to the listserve, it serves as an informal, convivial environment, a sort of "cyber-campfire" where the virtual community gathers to tell stories, share ideas, and ask for advice. Its role as an informal collaborative environment is vital.

These Internet classes demonstrate that there is great potential for creating learning communities via the Songlines of cyberspace — communities that support communication, collaboration, friendship, problem-solving, critical thinking, and — not least — writing, in

addition to learning about content. As one student commented, "You learn so much by participating in the process, as well as the class content." Many approaches to implementing Internet classes are possible, but as this discussion indicates, Internet-based learning experiences centered around collaboration offer wonderful potential to enhance learning as well as building powerful Songlines of human connection and collegiality.

### Legal Resources on the Internet

The Villanova University School of Law in Pennsylvania sponsors two innovative programs that build critically important electronic Songlines for the international legal community: (1) the Villanova

Center for Information Law and Policy (VCILP), and (2) Project Bosnia.

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The Villanova Center for Information Law and Policy operates an important web site (<http://www.law.vill.org>) featuring legal information. The VCILP web site publishes all U.S. Supreme Court and federal court of appeals opinions on a daily basis — an immensely accessible alternative to proprietary legal information systems like LEXIS and WESTLAW. And the VCILP Web site features the Federal Web Locator: the most complete single point of entry for Internet access to

the 850 agencies of the federal government. "Most recently, VCILP has become the electronic home for the Virtual Magistrate Project, an online dispute resolution center. VCILP wrote the software that allows people to process disputes with an independent arbitrator using the Internet" (Baker 1997).

Project Bosnia was founded by faculty and students at the Villanova Law School to promote the rule of law in Bosnia and elsewhere in Central and Eastern Europe by connecting legal institutions, the press, and sources of government information through the Internet. The Villanova Law School Web site states: "Project Bosnia endeavors to provide access to information generated by the Bosnian legal community via the Internet. This is our vision." Project Bosnia provides access to information and to computer hardware and software that supports that access. The director of Project Bosnia, Henry H. Perritt (quoted in Baker, 1997) explains, "Information technology already enhances our legal institutions. Imagine the impact of the Internet in Bosnia, where the traditional ways of obtaining information like law libraries and printing presses no longer exist." Because a physical information infrastructure no longer exists, the situation in Bosnia presents an opportunity for

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innovation. Ultimately, Bosnia stands to inherit the most technologically advanced legal system in the world.

Project Bosnia is based on the premise that there is a symbiosis between democracy and the existence of the rule of law as well as the existence of a free press. Project Bosnia is designed to promote effective legal institutions that will provide an underpinning for stable democratic governments — and enduring peace. Perritt (1997) explains, "Peace requires the rule of law. The rule of law requires functioning legal institutions. Legal institutions need to communicate." Project Bosnia features an Internet-based legal system for Bosnia. Why use the Internet? Perritt (1997) explains: "The Internet has low barriers to entry. Make the raw materials of democracy available on the Internet." Project Bosnia has arranged to send donated computers (from law firms) to press and judicial offices in Bosnia. And it has sponsored student internships (or "externships") where students go overseas to work directly with legal authorities in Bosnia to help implement and refine effective legal institutions (Perritt 1997). Project Bosnia has arranged for the Bosnian Constitutional court to use a customized version of the Virtual Magistrate software from the Villanova Center for Information Law and Policy.

This project began with the donation of a laptop computer and modem to the Sarajevo University Law School — and a powerful sense of vision. Community-building, collaboration — in cyberspace and in person — and communication are all enhanced in these two exciting legal projects at the Villanova University School of Law. These projects, and most especially Project Bosnia, demonstrate the critical importance of mapping relationships, not merely destinations, via the Songlines of cyberspace.

#### International Conference with CU-SeeMe Videoconferencing

Globenet 1997 — Information and Restructuring for Democracy: A Global Conversation About International Information Transfer Planning and Development of a National Information Infrastructure in the Global Context — is an international conference scheduled for November 5-7, 1997, that provides a model of how Songlines can be built in cyberspace using different media, including interactive videoconferencing via the World Wide Web — using digital cameras and CU-SeeMe software — and compressed digital video clips, in addition to text and graphics.

This conference will be centered in Warsaw, Poland, where some participants will gather for face-to-face presentations and discussions. This gathering will be supplemented by participants at seven virtual conference sites in the U.S., Australia, Brazil, South Africa, and South Korea, who will be able to see, listen, speak, and interact with the conference presenters in Warsaw — and with each other — at designated times via Internet-based digital videoconferencing. The GLOBENET 1997 Conference Website (<http://www.emporia.edu/S/www/slim/globenet/globenet.htm>) will feature

information about the presenters, together with compressed digital video clips of conference presentations, participant interviews, and commentaries from selected participants.

This planned cyberconference will explore how electronic Songlines can be built that promote communication, collaboration, and community across the globe and across disciplinary boundaries, using emerging digital technologies that bring people ever closer together.

## Conclusion

All of the projects described here are examples of cyberspace applications that feature a strong learning component in a context of community, communication, and collaboration. This includes collaboration across geographical and disciplinary boundaries, across boundaries of long-standing misunderstanding and animosity, across boundaries of infrastructures and institutions in need of rebuilding or reconfiguring in a more democratic mode. These projects all demonstrate the critical importance of mapping relationships, not merely destinations, via the Songlines of cyberspace.

A great deal of practical experimentation and testing is needed to explore all the potential that cyberspace offers for learning and community building. Some issues that need to be considered include finding a balance between "virtual" and "real" encounters, between synchronous (real-time) and asynchronous (delayed) communication online, and in finding the best mix of communication options (text, audio, video, etc.), including broadcasting and narrowcasting transmission options.

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