Profile of a Learning Design Agency: 
A Focus on the Stanford Learning Lab

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I. Overview

A. Project Summary

Stanford Learning Lab (SLL) is an agency appointed to conduct research on using technology to enhance learning in the whole university. One of SLL’s products is panFora, a Web-based discussion environment originally created for the higher education lecture class environments, but has since been adapted as a tool for courses of varying sizes, including small seminars. PanFora’s strongest feature is that it enables faculty and students to distribute and share information with maximum flexibility. An ongoing major project of the Stanford Learning Lab is the Learning Careers project which explores the real-life shape of individual learning patterns by establishing a longitudinal study to track the undergraduate learning careers of thirty freshmen (Class of 2002) through their four years at Stanford University. This study aims to develop a systematic understanding of the entire educational experience of Stanford undergraduate students and to capture the interaction between formal curricula and informal learning taking place within the university environment.

B. Database Information

 Stanford Learning Lab:
320 Panama St.
Stanford, CA 94305

Tel (650) 725-4313
Fax (650)725-5916
http://learninglab.stanford.edu

C. Contact Person (before September 2001)

Harrianne Mills
Associate Director
Communication Services
Stanford Learning Lab
harrianne@hill.stanford.edu
We initially contacted Gina Funaro, a program manager at the Stanford Learning Lab (stated as contact person in LDT lab). She then referred us to Harianne Mills, the Associate Director of the Communication Services of Stanford Learning Lab. Mills describes herself as the “frontline man” of SLL and “knows everything that everyone else is doing in SLL”.

D. Look and Feel

The Stanford Learning Lab is located at Bambi, a trailer type location.

It was not difficult to find the lab as the directions are clear and it is on campus. Upon arrival, we were welcomed by Harianne, who proceeded to show us around the lab and inform us of the history and current status of SLL. The place was arranged in open cubicles, with many tables facing each other and movable partitions scattered around. There was a feeling of collaboration and openness in the lab.
But they also featured a “quiet room” where people who want privacy and some moments of quietness can retreat.

There were only a few people in the lab when we were there, and there was a feeling of ‘isolation’ and seriousness in the place. More than half of the staff will be leaving by the end of the month and SLL is undergoing tremendous changes in the next few months.

E. 30-second pitch of agency

The Learning Lab’s vision and goals for the next three to five years are all focused on the opportunities provided by Wallenberg Hall. The facility, which will have six experimental classrooms, is a state-of-the-art applied research facility. Because the classrooms will be fully instrumented with technology for learning as well as technology for research, the Lab can, for the first time, conveniently observe and measure instructional practices on a day-by-day basis in regular classes. Furthermore, the Lab can do so unobtrusively, more economically, and with less effort than is required when conducting research and experiments in conventional classrooms. SLL will continue research to bring technology in higher education.

The SLL website contains information on the agency’s mission, goals, ongoing and completed projects and videos and reports on the SLL activities. To find out more information, go to http://learninglab.stanford.edu.

II. Description

A. Agency Summary

Established in 1997, the Stanford Learning Lab was charged by then President of Stanford University Gerhard Casper with promoting the research, development, and deployment of educational technology and innovative teaching methods to improve the
learning experience of all Stanford students. Serving to keep Stanford University on the leading edge of e-learning innovation, the Stanford Learning Lab acts as the university’s technology R&D unit, building next-generation learning tools and services and disseminating them to all schools in the community. Working collaboratively with Faculties at Stanford, SLL’s strategy is to bring the research model to everyday teaching and learning, building the knowledge base and infrastructure needed to allow individuals to create their own content, whether they are faculty, teaching assistants or students at the undergraduate or graduate level.

The Stanford Learning Lab has slightly over twenty staff, although more than two-thirds of the staff are leaving at the end of August 2001 due to organization reform. It also has around 17 faculty associates who have agreed to allocate approximately 20% of his or her basic research time to the applied R&D agenda of the Learning Lab.

**Stanford Learning Lab Organization**

Team leaders link to information about their competency teams.

**B. Site description**

SLL is located at Stanford Learning Lab Building (Bambi) and Davis-Vining Lab in Green Earth Sciences Building. The office is an open workspace concept with plenty of workstations and meeting tables. There’s a couple of meeting rooms and a ‘quiet’ room. They’ve a mix of high end PCs and Macs, a touch screen big monitor display, etc. The staff are worked under Learning Technology Competency Team, Learning Design Competency Team, Learning Lab Evaluation
C. Product description

One of SLL’s products is panFora, an online discussion environment for the development of critical thinking skills. PanFora is a Web-based discussion forum originally created for the higher education lecture class environment, and has since proven its adaptability as a tool for courses of varying sizes, such as small seminars. Beyond its use for classes, it also has been used as a space for communication and collaboration by various other academic programs. Individuals with access permission to panFora post messages that are subsequently displayed in a persistent, common, virtual space. Messages in panFora are organized by threads, which means that an original posting is linked to all its replies, which are displayed in hierarchical topic structure. Threads may be viewed through subject categories, by author, or chronologically. Instructors determine organization of subject categories, allowing them to categorize messages in a way that reflects the order of the course’s overall curriculum. Students logging onto panFora see a listing of the most recent posts to the forum, any replies to their earlier messages, and announcements posted on the opening page by the course instructor(s). Digital images and word-processing documents can be attached to messages posted using panFora, enabling faculty and students to distribute and share information with maximum flexibility. panFora offers convenient navigation using a multi-framed/windowed approach (with the option of a single-frame layout), with a "you-are-here" feature constantly orienting the user. Photographs next to messages assist the user in connecting faces and ideas.

D. Project Description

Little is known about how students acquire, maintain and employ the knowledge and skills they accumulate over the course of their college career. The Stanford Learning Lab’s Learning Careers project will explore the real-life shape of individual learning patterns by establishing a longitudinal study to track the undergraduate learning careers of thirty freshmen (Class of 2002) through their four years at Stanford University. The objectives of this study are two-fold: to develop a systematic understanding of the entire educational experience of Stanford undergraduate students and to capture the interaction between formal curricula and informal learning taking place within the university environment.

Students’ learning careers will be followed over time in order to: 1) engage all segments of the university in a critical examination of the whole; and 2) identify the contribution of individuals, programs, departments and institutional resources to the students’ learning. As students gain a better understanding of how they create, organize, and use the knowledge and skills they have acquired during their college experience, the team will be able to construct a model of learning from the learner’s point of view, integrating the learner’s formal and informal experiences in one model, and tracing the cumulative effect of specific experiences and skill acquisition through a broad arc of time.
III. LDT in the Agency

A. Design Process

A goal of SLL is to accelerate the adoption of learner-centered pedagogies at Stanford University. SLL uses naturalistic inquiry to study current practices and develop projects based on design theories. For each project, they developed prototype, use extensive live users testing and then refine the final product. Web-based technology is used in all their product.

B. Learning

Learning is emphasis on every project at SLL. The agency is very concern about how Stanford students learn both formally and informally. They’ve engaged more than a dozen of faculties from various schools (including Prof Decker Walker from School of Education) to be the advisors. Each of these Stanford Faculty members has agreed to allocate approximately 20% of his or her basic research time to the applied R&D agenda of the Learning Lab. They also engage other faculties as subject matter expert of the projects.

C. Assessment/Design studies

The agency did user testing and evaluation for each project. Basically the assessment process was they will first develop a prototype, then use it live for a quarter. Questionnaire and survey were conducted to obtain students feedback about the prototype.

D. An Example

In the past, LTDDers had worked as interns at SLL and involved in many projects. One of the projects was for Human Biology 4B: The Human Predicament. Using the software SLL developed, 250 students in the course participated in weekly, online debates. Each week, students first selected and then debated health and environmental policy options. During the course, SLL assessment team gathered data from the website, videotaped lectures and student groups. The assessment team is currently analyzing the data and will be working with the designers to revise the system for next year’s course.