



The Network of the Book

by C. Thomas Law

... so now I make this request of you, a fair one, as it seems to me, that you disregard the manner of my speech — for perhaps it might be worse and perhaps better — and observe and pay attention merely to this, whether what I say is just or not ...

— Plato, *Apology*

Wake Forest University has recently given me permission to attempt a great experiment — publication of a dissertation directly on the Web. There are no intervening paper copies necessary to complete my Ph.D. in Physics. The faculty at first said that they thought the idea was interesting, but that the librarians would not approve of it. To the amazement of all concerned, my greatest supporter in this potentially quixotic quest was my local librarian, Rhoda Channing. At least from the author's and the librarian's standpoint, our institution has prepared itself for the evolution of the paradigm of the book.

Writing for the Web, as compared to writing for print, is like sculpture as compared to canvas. A sculpture in low relief is not dissimilar to a textured oil on canvas. However, if one uses the media to their fullest, there are additional possibilities available in three dimensions. As a culture, we have grown up with, and are completely comfortable with flat, linear stories that fit in our laps; but there are times when the new, enhanced feature set of the Web can be put to good use — namely, in my dissertation!

I plan to incorporate the following new elements in my writing:

1. A nonlinear storyline, which the reader can modify depending on his or her expertise in a given subsection. This option could allow high school students as well as Ph.D.'s to read the same document close to their respective knowledge levels. (Imagine a "Simplify/DeSimplify" button on each page.)
2. Moving images, which can relate the experiments at a glance in ways that would otherwise take chapters of additional linear explanation.
3. Sounds. Any writer who has ever needed to convey a sound has been forced to use insufficient analogy. Now one can simply insert the real thing.
4. "Live" programs, which can be run by the reader. Scientific theses routinely include long appendices of

program listings which are next to useless, even though the program itself might be widely needed.

5. Update pages, which will be links to locations outside of the formal dissertation to pages which the author can change at will. Suddenly the dissertation is more than just a snapshot of one's prior knowledge. It can evolve into a complete record of a project (maybe even continuing all the way up to tenure).

After my advisors approve of the content, the library's role is to make this new document available to the world at large. Circulation concerns will evaporate, since lost volumes or insufficient copies cannot arise (except when the Web server goes down). Cataloging will eventually be automated. (Wake Forest envisions programs that could extract keywords directly from the electronic document.) A variety of links to the dissertation's Uniform Resource Locator (URL) — maybe directly from the on-line library catalog — will make it easy to find. Additional publicization of the item will likewise be straightforward. In addition to a number of general purpose Web index sites, Dissertation Abstracts International will accept abstracts which refer to a URL, so that this traditional database can still be used. It is exciting to think that people outside of the degree-granting institution might actually get to see and use my dissertation.

Consider the effort that has been expended over the years to get margins and type set properly; the marketing, shipping, distribution, cataloging, and shelving needed to make books accessible. With such an army of people involved, it is easy to lose track of the fact that books exist to give up their contents to an interested reader. The Web now simplifies publication and gives up options which allow a focus on that content instead of on format. Don't worry, it'll still be a book.

For more detail on the Web-based dissertation of C. Thomas Law, see his "Web Dissertation Frequently Answer Questions" page at <http://www.wfu.edu/lawct/why.html>