

Cornell Law School
Legal Information Institute

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July 23, 1996

Ms. Ann Brownell Sloane
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Research
Suite 1B - 165 East 72nd Street
New York, NY 10021-4335

Dear Ann:

The enclosed proposal for NCAIR support of Cornell's Legal Information Institute during 1996-97 requests a grant of \$40,000, the fourth during the Institute's five year start-up phase. The proposal is brief, for it assumes we should not repeat background information already contained in the LII's report for 1995-96 and the corresponding financial report from Cornell's office of Sponsored Funds.

Our base proposal for \$40,000 covers a diminishing portion of the activities and costs of the sort that NCAIR monies have funded in the past. In addition to that proposal we are submitting a request for a supplemental equipment up-grade grant. As our annual report notes, we are currently contending with heavy volumes and expectations using equipment and software systems that are inadequate to today's tasks, even though they were top-of-the line choices three and four years ago.

As before Tom and I stand ready to provide more detail or explanation about anything in either grant request.

Sincerely,

Peter W. Martin

Cornell's Legal Information Institute Base NCAIR Proposal -- 1996

Background Summary

This represents the fourth of a five year start up series of grant applications from Cornell Law School's Legal Information Institute (LII) to NCAIR. That series began with an initial 1992 letter to Ron Staudt outlining the five year program of start-up funding. In the first year, we applied for and received \$100,000 (in two segments) which enabled the launch of our institute. As my April 7, 1992 letter noted:

Each of the projects [proposed for 1992-93] has independent value but the principal thrust of this proposal concerns the establishment of a center bringing together resources and individuals from the law publishing sector, from legal education, and from the profession. This first year would launch a five-year program designed to bring law faculty (including those teaching in a practice or clinical setting), technical staff, information specialists, and those with relevant experience in other disciplines together around a series of projects and conferences. The self-conscious aim will be to explore the forms of collaboration and the combinations of talent necessary to produce effective materials harnessing this new technology.

While we hardly envisioned all the forms or directions this exploration would take, this continues to be the LII's fundamental aim. At the time of the Board's authorization of the full \$100,000 in October 1992, it posed several questions about the Institute's organization and prospects for "long-term self-sufficiency" to which our letter of November 23 replied:

The Institute faces a multi-year start-up period during which the editorial and authoring costs and other expenses of its publications and related activities will exceed revenues. Assuming both strategic focus and successful marketing within legal education and those sectors of the profession on which the Institute concentrates the Institute should eventually become self-sufficient.

Our success this past year in drawing support for joint-study activities involving both Martin and Bruce, including enough to cover Martin's sabbatic leave salary, is encouraging evidence that that was not wishful thinking. As a consequence our proposal for this coming year, like that for the one just past, is focused on non-project specific infrastructure costs that allow us to leverage our own time most effectively and enable us to explore unfunded opportunities that hold long-term promise.

Several activities now underway at the LII depend critically on the capacity which NCAIR support has given us to try new combinations of the technology, institutional resources, and our large user base in ways that may or may not prove to be self-sustaining. These are in all cases experiments hugely worth undertaking. Such experiments are, almost by definition, undertaken in the face of uncertainty about user response or demand. The liibulletin-ny, a very promising new model for use of student energy and expertise -- a possible law journal replacement or supplement -- was launched this past year with NCAIR money. Long-term this service or a successor may generate enough revenue to cover its costs, just as our disk-based publications are now generating enough revenue to cover their revision and updating. Our solicitation of contributions from subscribers to the parent liibulletin last month (the LII's first step in the direction suggested by the National Public Radio model) has, to date, generated \$2,000 -- a small sum but a beginning. We plan to offer fax distribution of liibulletin-ny this fall and, in that form, it will carry a fee. Our upcoming CD-ROM of historic decisions of the Supreme Court has the potential for going beyond break-even. However, without NCAIR support we would not have been able to create the initial version which will enable us to determine whether or not that is possible nor to invest in a mass mailing to schools that will test that market.

The Proposal

This year's base proposal of \$40,000 is made up of the following constituent elements:

systems coordinator position (1/2)	\$20,000
part-time business coordinator	\$10,000
student workers	<u>\$10,000</u>
	\$40,000

These are all elements that have been part of prior grants, in two cases at a reduced fraction of the overall cost.

Systems Coordinator Position

NCAIR funds have supported our key systems coordinator position. This position continues to be responsible not only for maintenance of the growing array of servers and services, but for the creation of software tools that permit the LII to continue to be a source of research and innovation -- indexes that search across sites and integrate information drawn from other sources, for example. Currently, our systems coordinator is working on the systems that will allow us to distribute our disk-based course materials via the Web, reducing our need to stock and ship diskettes. The explosion of the Web has driven up the price of this position. The \$20,000 figure in this proposal, down from \$30,000 in last year's, thus represents less than one-half the full cost we expect we'll have to pay when the incumbent leaves later this summer.

Business Coordinator Position

This new position added with NCAIR support last year has proved to be as valuable as we hoped. From handling the \$25 contributions coming in from liibulletin recipients, to making arrangements for CD-ROM production and marketing, to handling licensing and royalty commitments this administrative post has, by removing such matters from the co-directors' burdens, enabled the two of us to pursue the core activities of the Institute more actively and has allowed us to contemplate ventures with significant additional administrative impact (such as our planned "for fee" fax distribution of liibulletin-ny).

Student Workers

As already noted, NCAIR support of the student editors allowed us to launch the highly successful liibulletin-ny. Last year's \$12,000 represented no more than 60% of the ultimate cost of its start-up run. While some of its first year cost are a consequence of significant amounts of planning and experimentation that will not recur, year two will see us expanding the scope of the bulletin's coverage. Consequently, the \$10,000 figure for this heading represents less than half what we'll be spending on students working on the bulletin and closely related projects, let alone on student workers overall.

Supplemental Request - For \$40,000 Capital Grant

The attached spreadsheet (submitted with explanation along with the LII's annual report to NCAIR) contains the LII's five year capital budget, which totals \$160,000 for that period. As our report for 1995-96 details the extraordinary loads now carried by the LII servers compel us to upgrade basic infrastructure. Continuing to providing our current services reliably to an inexorably growing user base calls for a significant investment in new server capacity, as soon as possible. And further research and experimentation with new services cannot be launched without additional computers. The requested capital grant of \$40,000 would permit acquisition of three critical machines -- a first installment of this five year plan. The three items are referred to on the attached sheet as: www.law.cornell.edu, grinder.law.cornell.edu, and queries.law.cornell.edu. Because those names are suggestive but not fully descriptive and because the spreadsheet itself is so cryptic, let us repeat some of the explanation and background we furnished in May.

The top six machines on the spreadsheet (which include the three covered by this proposal) are our main and special purpose servers. While we will continue to need a main server ("www.law.cornell.edu") and indeed need a replacement soon for the Sun now in that service and will also continue to need an Intel machine running NT to run the Folio Webserver ("www2.law.cornell.edu"), our volume is forcing us to establish a coordinated array of special purpose machines. Our original single Sun computer cannot handle WWW file requests at the rate of 500,000 per week with very heavy peak loading mid-day, distribution of the liibulletin to over 8,000 e-mail addresses when the Supreme Court has handed down several opinions (typically during the Web peak period), build HTML access documents to the same decisions and add them to the index, and process multiple word searches of the U.S. Code.

We have already begun the move to specialized servers with our lists ("listserv.law.cornell.edu"). Certain types of "outside world" activities -- particularly broad queries on large databases such as the U.S. Code -- impose enough of a load that we need to divert them to a separate machine as soon as possible. This machine is on the books as "queries.law.cornell.edu". Intake and delivery machines need whenever possible to be separated from the production server. Having already done this with listserv, we are sure we'll need a "designated hitter" for a fax-out service planned for liibulletin-ny this fall as well. (No machine is listed for this purpose on the attached sheet because for this and Hypermail (our current threaded-list and list archiving software) and backup we plan on using hand-me-down machines made available by planned acquisitions.) As the size of our own collection and the other collections our search engines cover have grown, index-building has become an activity that cannot be run on the main server, in the background. Index-building has its own schedule, independent of everything else, and imposes processing demands that conflict with acceptable performance of the main server(s). It needs to be isolated on its own machine ("grinder.law.cornell.edu"). Finally, intake has not been much of a burden to date. But we face a need to receive and process court data directly in greater volumes (handling the Supreme Court directly rather than relying on Case Western, for example). For this and other high volume feeds we will need an "intake.law.cornell.edu" machine.

The two of us and our systems administrator will continue to need desktop machines that are primarily Windows boxes; if a separate UNIX (or Linux) machine is needed it can generally be created from a "hand-me-down" of the current desktop machine.

The capital budget also includes a short list of support equipment we'll need. The last item is software. Software licensing is going to be an increasing large expense for the Institute, in part because of the need to license server software robust enough to handle our volume and in part because our costs have (mostly due to an aversion toward use of commercial software except for Folio VIEWS for disk publication) been artificially low in the past.

With the exception of our base system and the supporting equipment our five-year budget assumes two purchase cycles during that period.

An NCAIR grant of \$40,000 would cover the base system ("www.law.cornell.edu") and the first cycle of two of the new special purpose servers ("grinder.law.cornell.edu" and "queries.law.cornell.edu").