It would seem that current copyright legislation should protect the rights of the copyright holder. Why is it necessary to update the law? The aspects of electronic information, which make it so appealing, are also the ones, which necessitate updating copyright legislation. Electronic information is easy to copy, distribute, and store. Its very nature makes it easy to change and revise, therefore, the need to update copyright law.

Davis provided a thorough description and discussion of the DMCA. One of the more interesting sections is Title IV, which deals with distance education. The relationship between distance education and the electronic environment may create the need for exemptions to certain parts of the DMCA; for example, certain categories of works may need to be exempted on a limited basis.

While the complexity of the legislation is without question, Davis continually emphasized the need for libraries and librarians to be prepared, to know the law, and to take all reasonable efforts to comply with it. Know what is happening at your institution. Familiarize yourself with the types of information faculty members are providing on their course Web sites. Assist in the development of the policies and procedures related to electronic information at your institution and know where to go for information on and clarification of the copyright legislation.

3. GLOBALIZATION, CONSOLIDATION AND THE GROWTH OF THE GIANTS: SCHOLARLY COMMUNICATION, THE INDIVIDUAL AND THE INTERNET John Cox, Principal, John Cox Associates Reported by Allan Scherlen

John Cox described the impact of the growth of corporate mergers and buy-outs of scholarly publishing companies on the scholarly publishing industry and ultimately on libraries and users. Cox noted numerous examples of acquisitions, such as Wiley acquiring Van Nostrand Reinhold and Bell & Howell's purchase of Chadwyck-Healey. He illuminated the wide range of motives behind corporate take-overs that apply as much to the publishing industry as any other. In looking for an answer to why the larger end of scholarly publishing is being concentrated, Cox observed that mergers and acquisitions are just part of normal corporate behavior that underlies a company's need to survive and prosper.

Cox went on to elucidate the qualities of the scholarly publishing industry that make this niche different from other types of publishing. The relative inelasticity of the research literature market is the main difference. For example, while the publishing market tries to cope with an explosion of information, library expenditures have not proportionally kept pace. Moreover, Cox noted, the research publishing market does not behave like a normal market—mainly because the practitioners and researchers themselves who make demands on their subscribing institutions use the published product. Thus, librarians cannot send proper punitive signals to overpricing publishers. Cox outlined the outcome of this situation: dramatic increases in journal prices, especially in the areas of medical, scientific and technological research, representing an annual price increase of 13 per cent.

Cox seeks solutions to the rising costs of scholarly publishing through models of pricing and purchasing that move away from what he calls "the straightjacket of the single title subscription." New pricing models can hopefully provide librarians choice. Such models include usage-based pricing models. An interesting result of such models, Cox pointed out, is that anecdotal evidence reveals that patterns of usage often do not correspond to the journals actually purchased by the library: a significant percentage of usage come from titles not previously subscribed. Cox also envisions a sliding scale model of usage fees. To preserve the existence of smaller publishers, Cox predicts that many small academic publishers may group together to provide subject specific, usage-based article delivery.

In a quickly evolving scholarly publishing universe, important factors such as the protection of intellectual property will not be ignored. Cox suggested that micropricing, through the use of DOI (Digital Object Identifiers) will make possible the tracking of payment on micro-items such as tables, diagrams and paragraphs. Cox noted that these various pricing models are not mutually exclusive and that, in the future, scholarly journal "content" will be provided under numerous pricing models.

Cox discussed difference in scholarly publishing quality, using two examples from physics and medicine: the Los Alamos preprint server and PubMed Central. These illustrated what Cox called "a dilemma over the tension between quality control...and speed of distribution..." In the case of physics, researchers who both create and use the article benefit from currency of the information and quick accessibility. In biomedicine, where there is less overlap between authors and readers, quality control is more important than quick turn around from writer to reader. This discussion on speed and quality led to the issue of the importance and effectiveness of peer review in the scholarly publishing process.

Cox suggested that both the publishing process and the function of libraries must be re-examined. Scholarly publishers must understand the context in which their content is used and that their discrete products become less discrete online "content." Cox emphasized the need of publishers to find new ways of looking at copyright, licensing management, and other issues related to facilitating access to their material while maintaining its integrity.

Librarians must overcome their "legacy of print" and assume their crucial role as information navigators and filterers, while developing their many existing roles. Cox encouraged librarians to continue to play an active part in managing knowledge and evaluating content.

Cox concluded by acknowledging the unpredictability of the future of scholarly publishing. He described publishers and librarians as both struggling with the transition from manufacturers and collectors to service providers. The future, Cox predicted, lies in partnerships and alliances between these two worlds so that the ultimate goal of providing simple access to quality scholarly work for readers can continue to be achieved.

4. SPARC: SETTING SAIL INTO THE SEAS OF COMPETITION Julia Blixrud, Assistant Director, Public Programs, SPARC Reported by Rachel Frick

Julia Blixrud began with a brief overview of trends affecting serials collections in the past 13 years. Between 1986 and 1999 ARL libraries' serials unit costs increased 207% as opposed to a 65% increase in monograph unit costs. Even though ARL Libraries' expenditure for serials increased 170% the number of titles purchased decreased by 6%. Blixrud mentioned other trends such as the growing gap between price of information and the ability to pay, an explosion in knowledge, publishing industry consolidation, and the emergence of a for-profit publishing monopoly. Strategies created to combat these publishing trends included journal cancellation and reduced monograph acquisitions, improved document delivery models, cooperative collection development, site licensing of electronic materials, and increased use of consortia to license electronic resources. Creating viable competition to for-profit publications was another maneuver suggested to fight the rising cost of scholarly communication. "If 100 institutions would put up \$10,000 each to fund 10 start-up electronic journals that would compete head to head with the most expensive scientific and technical journals to which we subscribe, we would have \$1 million annually. As a result, SPARC (The Scholarly Publishing and Academic Resources Coalition) was created.

Today SPARC consists of 200 members: libraries, publishing partners, scholar authors, and editors. There

are various levels of library membership. Full member libraries commit to spend \$7500 annual on SPARC endorsed materials. Consortia members agree to a purchase commitment of 0.2% of their materials budget. Supporting members and international supporting members have no purchasing commitment. By coming together under the SPARC banner, libraries can leverage their buying power to support lower priced alternatives to high priced journals and new models of dissemination that better serve authors, users, and buyers. The SPARC organization hopes to help in the battle against high subscription prices by reducing the financial risk through subscription pledges and marketing support, working with prestigious societies and editorials boards, raising faculty awareness of issues, drawing authors and editors away from high priced titles, and building capacity and scale within the not-for-profit publishing sector.

SPARC is working on these strategies through three main thrusts: SPARC Alternative, SPARC Leading Edge and SPARC Scientific Communities. SPARC Alternatives are scholarly communications created as a low cost alternative to similar high cost journals that cover the same discipline. SPARC has produced 3 alternative journals over the course of three years: Organic Letters. Evolutionary Ecology Research, and Geometry and Topology. The next alternative publication to launch will be Crystal Growth and Design. SPARC Leading Edge publications are those scholarly titles that exist only as electronic publications and demonstrate the possibility of a cost-effective e-journal. Examples of these include New Journal of Physics and Internet Journal of Chemistry. The third and final thrust of SPARC is its Scientific Communities, such as BioOne. BioOne is an aggregation of journals from AIBS (American Institute of Biological Sciences) member societies. It provides a way for these society publications to go electronic without going commercial. BioOne will provide electronic access to high value journals from small societies, keep economical titles from being squeezed out or taken over, and offset declining print circulation. Other SPARC Scientific communities include MIT CogNet, the California Digital Library, and Columbia Earthscape.

Other SPARC supported serials strategies mentioned were the Create Change program, which focuses on educating the university community at large about scholarly publication. This program is sponsored also by the Association of Research Libraries and the Association of College and Research Libraries.

More information on SPARC, the Create Change program, and the issues surrounding scholarly publications in general are located at the following URLs:

www.arl.org/sparc www.createchange.org