The research, teaching, and learning enterprise and the Internet share several critical attributes: providing access to research resources; promoting free speech; and fostering openness, innovation, and transparency. For public policy issues of primary importance to the research library community—such as balanced copyright and intellectual property law and effectively implemented open and public access policies—the Internet must permit access to research resources and must do so in an open and affordable manner. Thus these policy debates are inextricably linked to one another and to the ability of research libraries and academic institutions to manage copyrighted and public domain materials and to adopt policies that embrace greater sharing of research resources. This issue of RLI explores three leading public policies of interest to research libraries: net neutrality, fair use, and open and public access.

Net Neutrality
The Internet was designed to have a largely agnostic, neutral “core” whose job was to pass packets back and forth. This design allowed most of the “intelligence” in the network (the programs that read, write, and respond to the packets’ contents) to be at the edge; that is, in the hands of the user. Anyone who used standard protocols (which were freely available) could send and receive packets to or from anyone else on the network. Users could experiment with new programs, applications, and devices at the edge of the network, confident that the network would treat all packets alike and with no need to seek permission from any network provider or ISP. This design sparked phenomenal innovation and growth in countless sectors, resulted in
fundamental change in many marketplace models, and led to dependency by all sectors on a robust and non-discriminatory network. In a recent book, Steven Johnson refers to the “fourth quadrant: the space of collaborative, nonproprietary innovation, exemplified in recent years by the Internet and the Web, [which]…turns out to have generated more world-changing ideas than the competitive sphere of the marketplace.”

Today, research libraries depend on the Internet in several fundamental ways. First, research libraries are providers of content, services, and applications on the Internet. Second, research libraries rely on an open Internet to collaborate and obtain services and content from other sources and vendors. Finally, libraries rely upon the Internet to support and promote free speech and democratic values. A non-discriminatory network is central to the ability of research libraries to meet user information needs in support of research, teaching, and learning.

The phrase “network neutrality” is described simply: every network operator that provides Internet access to the public must allow every user to access and use content, applications, and services of her choice on the Internet without interference or discrimination. This “neutrality,” or non-discrimination principle, has a history in telecommunications law that long predates the Internet and was a critical element in the development of a nationwide long-distance voice telephony network almost 100 years ago.

As described by Kristen Riccard in her article in this issue of RLI on the importance of network neutrality to research libraries and academic institutions, recent legal challenges and technological advances, as well as market forces and actions by network operators, have called into question the fundamental openness of the Internet. The Federal Communications Commission (FCC), members of Congress, network providers, consumers, public interest groups, libraries, higher education, and others have focused on how to best achieve network neutrality. A recent court case, Comcast v. FCC, held that the FCC lacked the authority to enforce net neutrality principles against network operators who provide broadband access. Following this decision by the DC Circuit Court of Appeals, there has been a greater sense of urgency to enact, either through regulation or legislation, network neutrality principles. Riccard reviews the history of network neutrality, its criticality to research libraries, and the increasingly contentious debates in Washington over how best to ensure a free and open Internet. She concludes that the availability of low-cost, high-speed,
nondiscriminatory Internet services is essential for research libraries and academic institutions to achieve their missions in the 21st century.

**Fair Use**

The research library community has long advocated for balanced copyright and intellectual property policies, as these advance the mission of the research enterprise. The library and academic community look to copyright law as the policy framework for balancing competing interests of creators, owners, and users of copyrighted works. In recent years, through technological developments, court decisions, and legislation, this balance has shifted, favoring the commercial sector over non-profit and educational interests. This shift is due to several factors. First, driven by the fear of loss of control, and the loss of potential revenue due to the ease of copying digital copyrighted resources, owners of copyrighted works in the US pressed Congress and the Executive Branch for more restrictive copyright laws and practices. Second, the ability to technologically control uses of information allowed owners of copyrighted works greater freedom in limiting authorized use; thus, technology not copyright law determined use. Finally, the very nature of the Internet as a “disruptive technology” convinced Congress that greater protections for owners of copyrighted works were warranted. This shift has led to a variety of approaches in local practice, oftentimes practices that may not fully reflect the interests of the academy or what is actually permitted under law. These changes in law and practice also present challenges to research and academic libraries on a daily basis, as libraries provide access to copyrighted works to members of the academic and research community.

As described by Brandon Butler in this issue of *RLI*, research and academic librarians play a leadership role in copyright policy and practice at their institutions. These librarians rely on several provisions in the US Copyright Act, including fair use and related exemptions for libraries and educational institutions, to achieve their mission of preserving and providing effective public access to information in all formats. For libraries, the doctrine of fair use is an important limitation on the rights of copyright owners. This doctrine protects libraries and their patrons from liability when they reproduce copyrighted works for purposes such as scholarship, research, teaching, news reporting, and criticism. Fair use also serves an important “gap-filler” function. For example, as new technologies give rise to new rights and protections for copyrighted works,
a corresponding expansion of fair use rights is one way to maintain the appropriate balance between incentives for creators and access for the public.

In an effort to better understand and realize the benefits of fair use, ARL is conducting, in collaboration with the Program on Information Justice and Intellectual Property at the American University (AU) Washington College of Law and the AU Center for Social Media, a three-stage project to help academic and research libraries better employ fair use. This initiative is possible due to the generous support of The Andrew W. Mellon Foundation. The recently completed research phase of the project captures how practitioners in the academic and research library community interpret and employ fair use in key areas of practice, including support for teaching, and learning; support for faculty and student scholarship; preservation; exhibition and public outreach; and serving disabled communities. In the current phase, the project team is convening a series of round-table discussions with academic and research librarians that will serve as the basis for a code of best practices in fair use for academic and research libraries. The third and final stage will involve extensive outreach to and collaboration with academic and research librarians, and others in academic leadership, to promote a better understanding of fair use and adoption of the code. Butler’s article summarizes the project’s Stage One findings from a series of interviews with academic and research librarians to determine how they are using fair use and related exemptions in the Copyright Act to meet library mission.

Open and Public Access Policies

The Internet can accelerate discovery, enable new strategies to address complex research challenges, and democratize access. To take advantage of these opportunities and to further their mission of creating, preserving, and disseminating knowledge, many academic and research institutions are taking steps to capture the benefits of open and public access policies by developing campus policies for the timely, free, and online dissemination of institutional research outputs. As noted by David E. Shulenburger, Vice President for Academic Affairs, Association of Public and Land-grant Universities, “our member universities have a special mission of outreach and engagement with their communities; ensuring that the research they produce is widely available to the public at no additional costs to them is a true expression of that mission.” These institutional policies build on the growing adoption—by funding agencies,
in the public and private sectors, and internationally—of implementing policies mandating public access to the results of funded research.

These open and public access policies promote discovery and innovation, and advance science while removing barriers to scientific communication. Increasingly users expect, indeed demand, the ability to reuse, build on content, and data mine. Most licenses from traditional publishers do not permit such activity. In addition, legal and economic barriers present significant challenges to researchers and librarians. For example, roadblocks negatively affect research productivity. The American Association for the Advancement of Science report, *Intellectual Property Experiences in the United States Scientific Community*, describes the difficulties encountered by some researchers in accessing copyrighted literature. The study surveyed 2,157 US scientists; 562 of those scientists reported negative effects on their work because of difficulty in accessing the scientific literature. The consequences ranged from brief delay to abandonment of the research project.

Such roadblocks, and the inability to use technologies to their best advantage, spurred development of new open and public access models and tools of scholarly communication (e.g., Creative Commons licenses). As noted recently by Tom Rubin, Chief Counsel for Intellectual Property Strategy, Microsoft Corporation, user expectations regarding use and access to resources in the “Networked World” have changed:

> First, we should look at what the Networked World demands, not just for copyright but for all forms of commerce and communication. And one thing that is clear is that the Networked World demands *speed* and it demands *scale*. People now expect transactions to take place immediately, if not sooner, and likewise they expect access to information to help those transactions just as quickly. You see this demand for speed and scale in the rise of Creative Commons. In addition to the content and substance of the licenses, one of the reasons for the widespread adoption of Creative Commons licenses by those in the Networked World is how easy it is to include one in your creative work online.5

As noted by Heather Joseph in this issue of *RLI*, the adoption of policies calling for access to the results of funded research both in the US and around the world continues apace. The implementation and maturing of these policies has
led to a new focus, namely understanding the social and economic benefits that ensue from these policies. This entails, for example, strengthening the economic competitiveness of a nation’s scientific enterprise and targeting selected R&D that will benefit from policies promoting the sharing of research resources. UNESCO’s support for open access reflects this new focus. “Scientific information is both a researcher’s greatest output and technological innovation’s most important resource. UNESCO promotes and supports Open Access—the online availability of scholarly information to everyone, free of most licensing and copyright barriers—for the benefit of global knowledge flow, innovation and socio-economic development.”

While the understanding of the relationship between public access and the results of funded research, innovation, and economic competitiveness has deepened, there is a parallel movement to measure the actual return on investment of implementing these policies. Over the last two years, studies have been funded both in the US and abroad that explore the costs and benefits to national economies of policies that promote access to the results of research. Joseph details the different approaches undertaken in each of the studies and how these contribute to the policy debates concerning access to the results of funded research. The value of continuing to engage in these research efforts is key to the evolving public access policies.

**Conclusion**

The ARL Strategic Plan calls for ARL to influence “laws, public policies, regulations, and judicial decisions governing the use of copyrighted materials so that they better meet the needs of the educational and research communities” and to contribute “to reducing economic, legal, and technical barriers to access and use of the research results from publicly funded research projects, enabling rapid and inexpensive worldwide dissemination of facts and ideas.” To succeed, research libraries are dependent upon a non-discriminatory, robust, open, technological infrastructure that will permit effective use of resources under copyright, in the public domain, and under other legal regimes. Such an infrastructure must encourage emerging scholarly communication models that realize the benefits of networked-based technologies and reflect the interests of the academy and the public.

2 Network neutrality does not apply and never has applied to private networks such as those operated by academic and research universities. Broadband networks that do not serve the general public should be allowed to operate according to whatever principles serve the private users and operators of those networks.


