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MANDATED RESEARCH DATABASE WOULD IMPAIR COPYRIGHTS AND HEALTH

by

Richard L. Frank and Kenneth D. Ackerman

[W]hen men have realized that time has upset many fighting faiths, they may come to believe ... that the ultimate good desired is better reached by free trade in ideas – that the best test of truth is the power of the thought to get itself accepted in the competition of the market, and that truth is the only ground upon which their wishes safely can be carried out.

-Oliver Wendell Holmes, dissenting in *Abrams v. United States*,
250 U.S. 616, at 630 (1919).

Nothing is more crucial to Americans than their health, and nothing has benefited the health of Americans more during the past century than the advances in medical science. Medical science has defeated polio, discovered and decoded DNA, improved nutrition, and helped raise the life expectancies of children born today by 30 percent beyond those of their grandparents. And looking to the future, medical research is now working to achieve breakthrough cures for cancer, heart disease, diabetes, and a host of other conditions that seemed hopeless just a few years ago.

It is a great success story. More than any other field, medical science has flourished best when allowed to operate in a free, open marketplace of ideas, and has stagnated only when governments or other large institutions have tried to shackle it with ideology or bureaucracy. Over the past half century, as our modern system of Federal medical research grants has matured under the National Institutes of Health (NIH) and other agencies, Washington mostly has struck this balance just right, providing financial support, policy direction, and oversight while largely avoiding the types of heavy-handed controls that could strangle creativity.

In May 2006, however, United States Senator John Cornyn, joined by Senators Joe Lieberman and Jeff Sessions, introduced a proposal that proposed to alter this balance. Their bill, S. 2695, the Federal Research Public Access Act, had a simple, laudable goal: to improve public access to the fruits of Federally-financed research, using the best available new technology for disseminating information quickly and cheaply to the widest possible audience: the Internet. But by placing the United States government smack in the middle of scientific publishing, the bill threatened to disrupt the very marketplace of ideas that has allowed science to flourish in the first place. The bill is likely to be reintroduced in the new 110th Congress. If enacted, its effect

Richard L. Frank is a founder of and Senior Principal Attorney with the law firm Olsson, Frank and Weeda, P.C. **Kenneth D. Ackerman** is Of Counsel to the firm. *The views expressed here are those of the author and do not necessarily reflect those of the Washington Legal Foundation. They should not be construed as an attempt to aid or hinder the passage of legislation.*

may be to *weaken* research instead of *strengthening* it, a boomerang impact with the country's health in the balance.

Money and Publishing; the Process of Peer Review. American taxpayers invest some \$55 billion each year in scientific research, much of it in medicine. This research, in turn, results annually in some 65,000 scholarly articles deriving partly or entirely from Federal funds, representing about 10 percent of the entire universe of the scholarly articles published by the 21,000 journals covering medicine and science worldwide. Already, the large bulk of this material is available online in various forms. Most not-for-profit academic journals post their articles on Internet sites within twelve months of publication. Others use shared platforms such as High Wire Press, a division of Stanford University, which currently posts over 1.4 million full-text research articles from over 130 scholarly publications free of charge for users. These systems, developed privately in response to demand from consumers and medical professionals, have worked well, and show every sign that they will continue to expand and improve in years to come.

By far, most of the journals publishing medical research results are highly specialized, covering topics from Pathology to Molecular Diagnostics to Neurophysiology, Clinical Neurosciences, Pharmacology, among many others. Within its specialty, each of these journals performs a role far beyond simply printing or posting papers. As researchers submit articles for publication, these journals conduct a quality control process that weeds out the weak from the strong while also transforming raw manuscripts into polished, authoritative works, bringing to bear the efforts of a community of scholars and technical editors. The most visible element in this process is peer review, a system that exposes each proposed article to rigorous scrutiny by leading experts in its field. In addition, once a manuscript moves forward, the journals polish its editorial quality, catching mistakes, assuring consistency, and improving readability.

Each of these steps involves cost. And while Federal grant funds may be available to help finance the underlying research, it is the publishers themselves who bear the full expense of quality control, estimated at between \$3,000 and \$12,000 for each published article. Multiplied by the tens of thousands of articles published each year, this total burden reaches into the hundreds of millions of dollars – *a function performed entirely free of charge to the taxpayers*. Many of these medical journals operate under the auspices of non-profit organizations. They must cover their costs with the fees they receive from subscriptions, advertising, and reproduction. Without this income, their cupboards are bare and the function must stop.

What S.2695 Would Do. S.2695, as introduced into last year's Congress, threatened to topple this economic model. Rather than relying on the existing network of private journals and Internet sites to disseminate research results, it proposed to create a mandatory, government-operated system for posting finalized articles on the World Wide Web. It required journals and authors to supply the Federal government with electronic copies of each finalized, accepted, peer-reviewed article based in whole or in part on research supported by Federal funds. Then, it would require the relevant Federal agency to post the article on its own Internet platform within six months, in direct competition with the original journal.

The bill's purpose was straightforward. As it explained in its findings (section 2), "the Internet makes it possible for this information to be promptly available to every scientist, physician, educator, and citizen at home, in school, or in a library." On the surface, this sounds like a wonderful, unmixed blessing – free, rapid, universal circulation of government-financed research. But this purported benefit was also at the heart of the bill's central defect. In essence, the journal, after having accepted and published the article and making the full financial investment in it, would have seen its publication rights eclipsed by the Federal government long before recouping its cost – a loss of up to 70 percent of its income on each article, according to one industry survey.¹ The resulting financial damage to many journals could have been crippling or fatal. Their incentive to publish top-quality, authoritative, peer-reviewed manuscripts would have largely vanished. For the sake of displaying the golden eggs to a few more people a bit more quickly, the goose is sacrificed.

¹See Tenopir and King, *Towards Electronic Journals*, Special Libraries Edition, 2000, at 189.

Copyrights, Fact or Fiction? How can the government do this? Don't these journals own or control publishing rights in these articles? Certainly, Federal agencies cannot simply seize property – in this case, intellectual property – without compensation, or at least some form of legal due process. Or can they? Welcome to the strange world of Federal procurement.

Researchers receiving Federal grants generally are allowed to obtain copyrights for the articles they produce based on their government-supported work. Federal policy has long recognized the benefit of allowing researchers to copyright their articles so they can publicize new findings and analysis, an important spur not only to individual creativity but also to the development of new ideas among the research community as a whole.² And when scholarly journals accept manuscripts for publication, they do normally obtain the publication rights from the authors, often on an exclusive basis. As with any other publication, copyright protection provides these journals with the confidence they need to make the financial investment to produce a quality product. That's why the United State Constitution sanctions copyrights in the first place.³

But this is where Federal procurement differs. S.2695, in requiring agencies to publish copyrighted research articles, was able to rely on a long-ignored quirk in Federal research contracts – a reserve clause that gives with one hand and takes back with the other.⁴ These contracts, while generally granting researchers the ability to copyright their work, simultaneously preserve for the government a royalty-free, irrevocable right to reproduce, publish, or otherwise use the work for what it chooses to call “Federal purposes,” or authorize others to do so.⁵ In other words, the authors get their copyrights, but the copyrights fail to cover the author's largest potential competitor, the Federal government itself. And since the journals obtain their publishing rights from the author, a cloud on title in the original results in a cloud on title up the line.

How wide is the gap? How dark is this cloud? Only litigation ultimately can determine whether these reserve clauses actually could hold up should Federal agencies try to invoke them on a wide scale. Federal acquisition rules do not directly define what constitutes a “Federal purpose” in this context, but the concept is not open-ended. The Department of Defense, for instance, in its separate version of these rules, specifies what it considers the outside limit: “Government purposes ... do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.” In fact, the Defense Department underlines this point by forbidding its agencies from directly competing against a contractor who has already published a covered article for sale (with proper notice to the government) that remains reasonably accessible to the public for purchase.⁶

²This policy, for instance, is reflected in OMB Circular A-110, section 36, and Federal Acquisition Regulations, 48 CFR 27.404(f).

³See United States Constitution, ART. I, SEC. 8, CL. 8.

⁴S.2695 invoked these reserve clauses through its section 4(c)(3) which directed agencies to “make effective use of any law or guidance relating to the creation and reservation of a Government license that provides for the reproduction, publication, release, or other uses of a final manuscript for Federal purposes.” This rationale differs from the “fair use” doctrine used to justify other new Internet-based mega-libraries such as Google Print, which claims to disclose only “snippets” of the books in its system. Contrary to the standards of “fair use” laid out in section 107 of the Federal Copyright Act, for instance, articles posted under S.2695 would appear in their entirety, with no attempt to limit the posting's impact on the commercial value of the underlying work.

⁵See OMB Circular A-110, section 36. The Federal acquisition rules and related contractual texts use similar language, referring to distributions made “by or on behalf of the Federal government.” See, e.g., 48 CFR 27.404(f)(1)(iii) and 48 CFR 58.227-14.

⁶See 48 CFR 252.227-7013(a)(11) and 48 CFR 252.227-7013(i).

This same concept applied to medical research raises serious doubts about the reserve clauses relied on by S.2695. A Federally-financed Internet site competing for market share by posting copyrighted articles that are already available elsewhere at reasonable cost, using its legal power to undercut the competition by posting them free of charge, would seem to cross this line, displaying a “commercial purpose” as much as any purpose related to Federal policy. And since S.2695 itself stopped short of tampering with the copyrights themselves,⁷ a legal finding against the reserve clauses would bring the system to a standstill – though only after a small fortune has been spent on litigation fees.

In the past, scholarly journals have taken little notice of this entire legal morass because Federal agencies rarely if ever chose to exercise their power under these reserve clauses in a way to infringe on copyrights. In fact, over the years, an entire industry of journals, peer reviews, and private Internet platforms, representing investments of hundreds of millions of dollars, has developed in reliance on this restraint, all built on the assumption that the underlying copyrights behind these medical research articles were good. Now, S.2695, in one mighty swoop, threatened to pull the rug out from under it.

Public Policy. But even if Federal agencies did have the power to violate research copyrights, this fact would not, in itself, make it good public policy. S.2695, if reintroduced and adopted, would effectively transform the peer review, quality control system at the heart of today’s modern American medical research system into an unfunded mandate. If a journal could not absorb the added cost, the process would be short-circuited or could disappear. Fewer journals exercising firm quality controls would mean lower standards and fewer outlets for researchers to publish authoritative works.⁸

The goal of better public access to Federally-funded research is a sound one, but better approaches have been suggested to accomplish it. A coalition called DC Principles, for instance, has proposed that NIH provide a centralized platform of links to the many existing private web postings of journal articles – a much larger universe than simply those financed by Federal agencies. Similarly, the National Science Foundation’s Office of Inspector General in a September 25, 2006, report titled “*Audit of Interest in NSF Providing More Research Results*” has recommended several ways for NSF to expand public access to research results on line – such as the posting of abstracts and short summaries, citations, so on – all without violating copyrights or posting full manuscripts.

S.2695 was a good-hearted attempt to do the right thing, but in the wrong way. But given the stakes involved – the health of future generations of Americans – this is no place to take short-cuts or lower standards.

⁷Section 4(e) of the bill guarantees the preservation of all rights for existing copyrights under United States Code section 17.

⁸Some proponents suggest dealing with this entire problem by forcing authors themselves to pay sizeable fees to journals for publishing their scientific papers, but this approach could produce an even worse set of perverse incentives, discouraging scientists from sharing their findings, or forcing them to divert Federal grant dollars away from research, or encouraging journals to grant publication to the highest bidder.