

Statement to the Library of Congress concerning Static Control Components'  
Exemption from the DMCA

submitted by  
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We, the faculty of the Computer Science Department of Cornell University, unanimously urge the Librarian to grant the DMCA exemption requested by Static Control Components. The facts of the matter are plain: Lexmark has invoked the DMCA in an attempt to prevent another company from making printer cartridges that compete with Lexmark cartridges. The reasoning behind Lexmark's invocation, namely, that a computer protocol accesses a copyrighted piece of software and thus is protected by the DMCA, is frightening to us as academics. Lexmark's reasoning implies that any manufacturer can invoke the DMCA to prevent competitors from implementing compatible products. Assuming Lexmark's suit is upheld, the immediate impact will probably be felt in the software industry, since protocols between software components are the underpinnings of almost all computing nowadays including the entire Internet. This is why we as Computer Science professors feel obliged to respond.

A Lexmark victory would not just affect the software industry, however. It would impact all sectors of the economy and would be likely to dramatically concentrate power in the hands of large companies. Consider the following scenario: auto manufacturers develop a protocol for autos to communicate with gasoline pumps. The upshot is that cars in the future can be refilled only at gasoline stations licensed by the auto manufacturer. The technology to implement this scenario exists today in most autos and gas pumps. Independent gas station owners who tried to bypass the protocol would be felons under the DMCA. Lexmark's interpretation of the DMCA allows a wholesale reshaping of U.S. markets and a stifling of free competition in the guise of copyright protection. The New York Times reported on February 25 that the price of radio-frequency ID chips (which can be used to implement computer protocols between objects) has dropped to 30 cents apiece, so that computer protocols between the most mundane items, e.g., handheld electronic toys and their batteries, could easily be reality soon.

Beyond the economic impact, a Lexmark victory is also likely to hinder creativity, which is precisely what copyrights (and, thus, the DMCA) are intended to encourage. Here is a scenario in which Lexmark's interpretation of the DMCA would impair creativity. Consider the Postscript document standard, extremely widely used in academia, industry and government because almost all high-end printers and modern commercial typesetting machines use Postscript. In fact, the U.S. Copyright Office's own website uses PDF, which is based on Postscript. The Postscript interpreter inside of most printers (a piece of software internal to the printer that enables it to use Postscript) is partly copyrighted by the printer's manufacturer and partly by one company, Adobe Systems, the inventor of Postscript. The

Lexmark interpretation of the DMCA would mean that Adobe would be completely within its rights to impose restrictions on what applications can print to a Postscript-enabled printer, which users can print, and even what documents and figures are allowed to be printed, regardless of the wishes of the document author/copyright-holder. This includes all the existing millions of pages of Postscript documents and illustrations already created (thousands of documents just by the faculty of our single department). Clearly the Lexmark interpretation places too much power in the hands of Adobe over the creativity of artists and authors. Naturally, this would not be a concern if there were many competitors to Postscript and PDF, but in fact currently Postscript and PDF are almost monopolies.

Therefore, we urge the Librarian to uphold SCC's request to exempt computer protocol sequences from the DMCA.