

February 17, 2000

**Re:** Request for Comment on Public Law 105-304 – The Digital Millennium Copyright Act.

**To:** Office of the General Council  
Copyright Office, LM-403  
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USC Section 1201, specifically 1201(2), is a dangerous piece of legislation that threatens both the ability to advance any technology based upon existing technologies, and the computer Industry's ability to enforce standards and consumer safety measures by potentially criminalizing any 3<sup>rd</sup> party evaluation or public scrutiny of the inner-workings of any software or hardware whose author wishes them to remain inviolate for any commercial or profit-related reasons. As a computer professional with years of software development experience, I realize that security of code and methodology is the key point in ensuring that money can be made from selling a software product. Unfortunately, it is also the key point in security holes, system incompatibilities, and a major stifling point for providing features and functionality that consumers demand, since one person or company is simply not capable of meeting all consumer requests on their own.

Section 1201(2)(A) states that no person shall traffic in a technology "*primarily designed for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title;*" The unavoidable fact is that **any** piece of software designed for interoperability, security testing, bug detection, incompatibility troubleshooting, or research for the purpose of creating a "next-generation" product can be classified as "*primarily designed for the purpose of circumventing a technological measure*" as little except for the author's stated intent can prove otherwise in a court of law.

An example, picture the stifling effect on today's market if the creators of the Compact Disc (CD) media counted their digital encoding scheme as an encryption method, thus covered by Section 1201. The fact that their "encoding" offered no protection whatsoever would be superfluous to the fact that the legal protection of 1201 would be offered them. In that case, any music company, software company, or hardware company would be forced to purchase or license encryption/decryption modules from the creators, and pay a certain fee for each and every CD ever produced. CDROM would not be a viable storage technology for consumers today, since paying to back-up one's computer on CD would make tape the most cost-effective, if less versatile, solution. Equally, only large music corporations would be able to sell music on CD, since smaller companies could not afford to do so, and cassette tapes would still be the medium of choice for non-mainstream music.

Later subsections of 1201 indicate exemptions for security and research purposes, however, these subsections in no way allow for distribution of any discovered information

obtained through these exemptions. As worded in, for instance, 1201(2)(g)(2)(C), the researcher must “*make a good faith effort to obtain authorization before the circumvention*”, which no person can realistically expect to obtain should the industry or manufacturer holding the technology be set on protecting their material under this Act in the first place. Thus, consumer safety is still affected due to the fact that researchers, even once a problem is discovered, can still be held liable for violations should they attempt to distribute their solution independent of the original manufacturer.

Furthermore, the problem with the basic premise of this Act is that it in *no way* prevents the piracy of copyrighted content, which is what this Act intends to prevent. By performing what is known as a “bit-wise copy,” **any** digital content can be copied bit-by-bit onto another medium with encryption and protection technology intact. In the recent lawsuits regarding DVD (Digital Versatile Disc), this Act has been referred to, and the reverse-engineers of the technology in question are being held accountable for promoting the piracy of copyrighted content. Nonetheless, what is consistently overlooked is that their actions made it possible for content to be displayed on multiple systems, which in their stated intent constitutes an interoperability issue. While that technology could certainly be used to create copies of copyrighted material, it did not make it any easier or more difficult to do so, as the technology necessary to create one-for-one copies of DVD content has existed since the medium was introduced. In fact, the manufacturers themselves use a form of bit-wise copying in order to create their originals for sale in stores.

In summary, this section of law should be revoked or revised prior to attempting any enforcement of its contents. The potential for its use in stifling competition, consumer safety, standards conformance, and technology advancement is tremendous, as those charged with its violation have no real defense aside from their stated intent, since a copyright holder can always charge, and be at least partially correct, that the technology is used for copying their materials without their authorization. At the same time, its enactment in no way prevents the actual copying and distribution of copyrighted materials, since even simpler, low-level methods of creating illegal copies already exist, and do not rely on any reverse-engineering or decryption to fulfill their function.

Consumers and Computer related Industries would be much better served by allowing their methods to be tested, and their problems to be corrected by people with the know-how to do so. Enforcement of this Act will criminalize those who would attempt to enhance security and consumer protection, attempt to ensure interoperability for widespread distribution of popular mediums and formats, and those who attempt to compete with Industry powers by starting small-business ventures whose existence would be threatened by “hermetically-sealed” standards, the inner-workings of which are forbidden to any but the original author.

Thank you for your attention and consideration.