

The Digital Millennium  
Copyright Act  
Marshall Lerner  
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**PURPOSE OF INTELLECTUAL PROPERTY LAWS**

The purpose of intellectual property laws is to incentivize creativity.

To achieve this goal, the intellectual property laws provide some exclusivity as a reward for creativity.

In order to benefit society, intellectual property laws must be administered to achieve their goal of incentivizing creativity without imposing an unreasonable restraint on competition and without imposing an unreasonable impediment to research. This often requires a delicate balance between.

1. Respect for intellectual property rights, and
2. The encouragement of vigorous competition and encouragement of research.

**INTELLECTUAL-PROPERTY ISSUES RELATING TO  
DECRIPTION OF ENCRYPTED CODE:**

1. COPYRIGHTS
2. TRADE SECRETS
3. THE DIGITAL MILLENNIUM COPYRIGHT ACT
4. FREE SPEECH
5. REWARD FOR CREATIVITY AND THE PUBLIC INTEREST

**CONSTITUTIONAL BASIS FOR  
PATENTS AND COPYRIGHTS**

The Congress enacted the patent and copyright statutes based on the power conferred in the Constitution article I, section 8, clause 8 which confers on the Congress the power:

*"To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."*

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**COPYRIGHTS**

Some Basics of Copyright Law

Copyrights protect works of authorship that are:

1. Original.
2. Fixed in a durable medium that can be perceived, reproduced, or communicated.
3. Within a copyrightable category.
  - A. Expression of a work is protectable under copyright law.
  - B. Ideas, methods and processes are not copyrightable.

**TRADE SECRETS**

1. Derives independent economic value, actual or potential, from not being generally known; and
2. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Protectable Subject Matter

1. Commercial Proprietary Information
  - A. Customer Lists
  - B. Pricing Information
  - C. Marketing Techniques
2. Technical Data
  - A. Research and Development
  - B. Production Techniques
  - C. Formulas and Processes

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#### DMCA PROTECTION OF COPYRIGHTED DIGITAL DATA

The Digital Millennium Copyright Act (DMCA) provides the copyright owner with the right to prevent decryption of encryption systems embedded in copyrighted works. Essential Elements of the DMCA

Violations Regarding Circumvention of Technological Measures.

§(a)(1)(A) No person shall circumvent a technological measure that effectively controls access to a [copyrighted work]...

**Plain English:** Prohibits the electronic equivalent of breaking into a locked room in order to obtain a copy of a copyrighted work

§(a)(2) No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that—  
(A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a [copyrighted work]...

**Plain English:** Prohibits trafficking in technology on how to unlock the lock that locks the room in which the copyrighted work is stored

§(a)(3)(A) To "circumvent a technological measure" means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner.

**Plain English:** Decrypt encrypted code of encoded work without permission

§(a)(3)(B) A technological measure "effectively controls access to a work" if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.

**Plain English:** Treats the technology like a trade secret

#### TO BE PROTECTED UNDER DMCA...

1. The work must be copyrightable subject matter, e.g., a movie.
2. It must be in encrypted code, e.g., encrypted code for a DVD
3. The copyright owner must use "a measure that effectively controls access" to a copyrighted work, e.g., applying trade secret type protection.

#### The DMCA Effectively Provides a Form of Trade Secret Protection for Encryption Code Used to Protect Copyrighted Works.

The DMCA prohibits the circumvention of encryption systems – e.g., through decryption software – of copyrighted works.

The DMCA effectively provides trade secret rights for encryption systems for copyrighted works, notwithstanding the fact that the secret encryption system was decrypted by reverse engineering.

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#### FREEDOM OF SPEECH

The First Amendment of the U.S. Constitution provides:

*"Congress shall make no law... abridging the freedom of speech"*

#### HOW DO WE RECONCILE THESE ISSUES?

1. Copying a copyrighted work without authorization of the copyright owner is copyright infringement.
2. Encrypted code may be protected under trade secret laws provided it meets the criteria for trade secret protection.
3. The Digital Millennium Copyright Act gives a copyright owner the right to prohibit circumvention and trafficking of an encrypted copyrighted work provided that the copyright owner applies a technological measure to effectively control access to the work (such as treating the encrypted code as a trade secret).
4. The First Amendment of the Constitution prohibits any law of Congress that "abridges freedom of speech."
5. The Digital Millennium Copyright Act is constitutional notwithstanding the challenge based on First Amendment freedom of speech.

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#### REWARD FOR CREATIVITY AND THE PUBLIC INTEREST

The balancing of these two public interests was recently debated in *Eldred V. Ashcroft*, 537 U.S. 186; 123 S. Ct. 769 (2003)

Justice Ginsburg, speaking for the majority, debated the issue with Justices Stevens and Breyer. She stated:

Justice Stevens' characterization of reward to the author as "a secondary consideration" of copyright law . . . understates the relationship between such rewards and the "Progress of Science." As we have explained, "the economic philosophy behind the [Copyright] Clause . . . is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors." *Mazer v. Stein*, 347 U.S. 201, 219, 98 L. Ed. 630, 74 S. Ct. 460, 1954 Dec. Comm'r Pat. 308 (1954). Accordingly, "copyright law celebrates the profit motive, recognizing that the incentive to profit from the exploitation of copyrights will redound to the public benefit by resulting in the proliferation of knowledge . . . . The profit motive is the engine that ensures the progress of science." *American Geophysical Union v. Texaco Inc.*, 802 F. Supp. 1, 27 (SDNY 1992), aff'd, 60 F.3d 913 (CA2 1994).

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**Marshall A. Lerner** is managing partner of the law firm of *Kleinberg & Lerner, LLP* and has been with the firm since its inception in 1985. He received his Bachelor of Science in Electrical Engineering cum laude from New Jersey Institute of Technology in 1962. He obtained his Juris Doctor with Honors from George Washington University in 1965, and has been practicing in the area of intellectual property law since 1965. He was previously an examiner in the U.S. Patent and Trademark Office and a patent advisor to the Office of Naval Research. Mr. Lerner is admitted to practice before the United States Patent and Trademark Office, Ninth Circuit Court of Appeal, Federal Circuit Court of Appeal, the District of Columbia and California bars. Mr. Lerner's practice area is patent, trademark and copyright infringement litigation, counseling and U.S. and foreign patent and trademark applications. Mr. Lerner has lectured in the area of intellectual property in the Anderson Graduate School of Management, UCLA, Harvard University, Center for Research on Computation and Society, Harvard School of Engineering and Applied Science, The Marshall School of Business, University of Southern California, Pepperdine Graziadio School of Business & Management and Santa Monica College. He has conducted workshops in advertising injury and risk management of intellectual property claims for the Insurance Education Association of California. [mlerner@kleinberglerner.com](mailto:mlerner@kleinberglerner.com)

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