whether physical articles from which information may be perceived only with the aid or intervention of machines (such as ROMs) are copies of works of authorship. If the primary intended use of the article is utilitarian, in the sense that the article itself performs a mechanical or utilitarian function, or interacts with machines to do so, the article is not a "copy" and is not within the protection of copyright law. Only if the primary intended use of the article is as a medium for storing information and then extracting that information for communication to humans is the article a copy and within the protection of copyright law." (Page 18)

Perhaps we must recognize the distinction between a ROM's contents and the physical ROM itself, just as we distinguish between a book's contents and the physical book itself.

Mr. Stern replies: The analogy is not quite right. Duplicating a book is copyright infringement. Whether duplicating a ROM is copyright infringement is what we are trying to ascertain. Even if assembly code or object code in written form is copyrightable, that does not lead to the conclusion that the ROM itself is a "copy" of the assembly code or object code printout. As you point out, no one can pick up just any ROM and read its contents, even with a microscope or electronic interrogation device. Perhaps even more important is a point about the intended purpose of the device, a point made in a number of 19th and early 20th century US and English decisions on piano rolls and similar devices.

In one opinion, later affirmed by the Supreme Court (although the latter's opinion may now be under a cloud), the court said of a piano roll:

It is not a copy in fact. It is not designed to be read or actually used in reading music as the original staff notation is; and the claim that it may be read [by a skilled person] ... would establish merely a theory or possibility of use, as distinguished from an actual use. ... The perforations in the rolls are not a varied form of the symbols used by the author. They are mere adjuncts of a valve mechanism in a machine.

_White Smith Music Pub. Co. v. Apollo Co., 147 F. 226, 227 (2d Cir. 1906), affirmed on other grounds, 209 U.S. 1 (1908)._ Or, as both the trial court and Supreme Court in the same case respectively observed, "[T]he single purpose of the perforated sheets [rolls] is to mechanically reproduce musical sounds ... they are not, like the sheet music ... intended to be read," 139 F. 427, 428 (S.D.N.Y. 1905), and "they are not intended to be read," 209 U.S. at 18.

Like the piano rolls, music box cylinders, and waxed cylinders (early phonograph devices) discussed in the various early cases, a ROM is not intended to be read like a book or to serve as a medium of communication. If that occurs, it is merely incidental. Program data stored in a ROM is intended only to run a machine.