

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY GROUP CORPORATION (JAPAN), SONY CORPORATION OF
AMERICA, SONY INTERACTIVE ENTERTAINMENT LLC, SONY
PICTURES ENTERTAINMENT INC., SONY ELECTRONICS INC., and
VERANCE CORPORATION,
Petitioners,

v.

MZ AUDIO SCIENCE, LLC,
Patent Owner.

Case No. TBD
Patent No. 7,289,961

DECLARATION OF MARY K. BOLIN, Ph.D.

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| Sony Exhibit 1025 Sony v. MZ Audio |
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I, Mary K. Bolin, declare as follows:

1. I am Emeritus Professor at the University of Nebraska, Lincoln Libraries. I have held the following positions: Professor and Catalog and Metadata Librarian, Digital Initiatives and Special Collections Department, University of Nebraska—Lincoln Libraries (2015–2020); Professor and Chair, Discovery and Resource Management and Coordinator of Collection Development, University of Nebraska, Lincoln Libraries (2004–2015); Lecturer, San José State University School of Information: Lecturer, (2008–present); Head of the Technical Services Department, University of Idaho Library (1993–2003; promoted to Professor in 1999); Head of the Cataloging Department, University of Idaho Library (1986–1993; promoted to Associate Professor and tenured in 1991); Head of Records Maintenance Section, Cataloging Department, University of Georgia Libraries (1981–1986).

2. Over the course of my work as a librarian, professor, researcher, student research supervisor, and author of numerous scholarly papers and other publications, I have had extensive experience with cataloging records and online library management systems built around Machine-Readable Cataloging (MARC) standards. I also have substantial experience in authenticating printed documents and establishing the date when they were accessible to ordinarily skilled researchers.

3. Attachment A is my full resume.

4. I have been retained by Wolf, Greenfield & Sacks, P.C. to evaluate the authenticity and/or determine dates of public availability of certain documents in the above-captioned IPR proceeding. For this service, I am being paid my usual hourly fee of \$150 per hour. I have no financial interest in, or affiliation with, Petitioners. My compensation is not dependent upon the outcome of, or my testimony in, the IPR proceeding.

A. Document of Interest

5. The document that is the subject of this declaration is the following:

Document 1. J.F. Tilki et. al. (1997) Encoding a hidden auxiliary channel onto a digital audio signal using psychoacoustic masking *Proceedings IEEE SOUTHEASTCON '97. Engineering the New Century.*

B. Methodology

6. I conducted a search in the OCLC database and IEEE Xplore. I also searched the library catalogs of institutions such as the University of Nebraska—Lincoln, Princeton University and other large research libraries. The databases and library catalogs I used are well-known and commonly used by library professionals. My goal was to find a record in one of these databases that contained a date indicating when a work was available to the public.

7. *Use of MARC Records.* The “Machine Readable Cataloging” standard, also known as “MARC,” is an industry-wide standard method of organizing library catalog information. MARC was first developed in the 1960s by the Library of Congress. A MARC-compatible library is one that has a catalog consisting of individual MARC records for each of its works. Today, MARC is the primary communication protocol for the transfer and storage of bibliographic metadata in libraries.

8. OCLC is a database of MARC records used by libraries worldwide. When an OCLC participating institution acquires a work, it creates a MARC record for this work in its computer catalog system and OCLC automatically supplies the date of creation. The MARC record creation date reflects the date on which, or shortly after which, the item was first acquired and catalogued. Once the MARC record is created by a cataloger at an OCLC participating member

institution, the MARC record is instantaneously available to any OCLC participating members, and, therefore, available for use by the public to locate the work.

9. A MARC record comprises several fields, each of which contains specific data about the work. Each field is identified by a standardized, unique, three-digit code corresponding to the type of data that follow. For example, a work's title is recorded in field 245, the primary author of the work is recorded in field 100, an item's International Standard Book Number ("ISBN") is recorded in field 020, an item's Library of Congress call number is recorded in field 050, and the publication date is recorded in field 260 or 264 under the subfield "c." If a work is a periodical, then its publication frequency is recorded in field 310, and the publication dates (*e.g.*, the first and last publication) are recorded in field 362, which is also referred to as the enumeration/chronology field. The library that created the record is recorded in field 040 in subfield "a" with a unique library code. When viewing the MARC record online via OCLC's Connexion database, hovering over this code with the mouse reveals the name of the library. I used this method of "mousing over" the library codes in the OCLC database to identify the originating library for all of the MARC records in this declaration, as well as the "display holdings" command to see a list of libraries that own the work. In the MARC records in the OCLC Connexion database, MARC field 040 contains the OCLC symbols of institutions transcribing, creating, and modifying the record.

10. OCLC was created "to establish, maintain and operate a computerized library network and to promote the evolution of library use, of libraries themselves, and of librarianship, and to provide processes and products for the benefit of library users and libraries, including such objectives as increasing availability of library resources to individual library patrons and reducing the rate of rise of library per-unit costs, all for the fundamental public purpose of furthering ease

of access to and use of the ever-expanding body of worldwide scientific, literary and educational knowledge and information.”¹ Among other services, OCLC and its members are responsible for maintaining the WorldCat database (<http://www.worldcat.org/>), used by independent and institutional libraries throughout the world. OCLC is the international cooperative to which libraries catalog records and others pay to access MARC records. The MARC records referenced in this declaration, extracted from the OCLC database, were generated in the ordinary course of business. Further, I personally located and downloaded each of these records.

11. OCLC provides its members online access to MARC records through its OCLC Connexion database. When an OCLC member institution acquires a work, it creates a MARC record for this work in its computer catalog system in the ordinary course of its business. MARC records created at the Library of Congress are batch-loaded into the OCLC database through a subscription to MARC Distribution Services daily or weekly. Once the MARC record is created by a cataloger at an OCLC member institution or is tape-loaded from the Library of Congress, it is then made available to any other OCLC members online, and, therefore, made available to the public.

12. When an OCLC member institution creates a new record, OCLC automatically supplies the date of creation for that record. The MARC record creation date reflects the date on which, or shortly after which, the item was first acquired or cataloged by the member institution that created the record.

13. The date of creation for the MARC record appears in the fixed field (008), characters 00 through 05. The Date of creation in OCLC never changes. These dates are

¹ Third Article, Amended Articles of Incorporation of OCLC Online Computer Library Center, Incorporated (available at <http://www.oclc.org/en-US/membership/councils.html>).

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