

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., LG
ELECTRONICS MOBILECOMM U.S.A. INC., LG ELECTRONICS MOBILE
RESEARCH U.S.A. LLC, AND LG ELECTRONICS ALABAMA, INC.,

Petitioner,

v.

FUNDAMENTAL INNOVATION SYSTEMS INT'L, LLC

Patent Owner

U.S. Patent No. 7,834,586

DECLARATION OF INGRID HSIEH-YEE, Ph.D.

I. INTRODUCTION

I, Ingrid Hsieh-Yee, declare as follows:

1. I have been retained as an independent expert witness on behalf of LG Electronics, Inc., LG Electronics U.S.A. Inc., LG Electronics Mobilecomm U.S.A. Inc., LG Electronics Mobile Research U.S.A. LLC, and LG Electronics Alabama, Inc. (collectively “LGE”) related to *Inter Partes* Review of U.S. Patent No. 7,834,586 (“the ’586 Patent”).

2. I am being compensated for my work in this matter at my accustomed hourly rate. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the results of my study, the substance of my opinions, or the outcome of this matter.

3. In the preparation of this declaration I have reviewed the exhibits referenced below, each of which is a type of material that experts in my field would reasonably rely upon when forming their opinions:

- (1) Hart, D. W. (1997). Select pages from *Introduction to Power Electronics* (“Hart”), **Exhibit LGE-1014**;
- (2) Bibliographic Record for “Hart” retrieved from the online catalog of Library of Congress at <https://lcn.loc.gov/96041825>, **Appendix B**; and
- (3) MARC Record information for “Hart” retrieved from the online catalog of Library of Congress at

[https://catalog.loc.gov/vwebv/staffView?searchId=14310&recPointer=8
&recCount=25&bibId=1164330](https://catalog.loc.gov/vwebv/staffView?searchId=14310&recPointer=8&recCount=25&bibId=1164330), **Appendix C**.

4. In forming the opinions expressed within this declaration, I have considered:

- (1) The documents listed above;
- (2) The reference materials cited herein; and
- (3) My own academic background and professional experiences, as described below.

II. QUALIFICATIONS

5. My complete qualifications and professional experience are described in my curriculum vitae, a copy of which is attached as **Appendix A**. The following is a brief summary of my relevant qualifications and professional experience.

6. I am currently a Professor in the Department of Library and Information Science at the Catholic University of America. I have experience working in an academic library, a medical library, and a legislative library and have been a professor for 27 years. I hold a Ph.D. in Library and Information Studies from the University of Wisconsin-Madison and a Masters in Library and Information Studies from the University of Wisconsin-Madison.

7. I am an expert on library cataloging and classification and have published two books on this subject, *Organizing Audiovisual and Electronic*

Resources for Access: A Cataloging Guide (2000, 2006). I teach a variety of courses in the area of information organization and access, including “Cataloging and Classification,” “Advanced Cataloging and Classification,” “Organization of Internet Resources,” “Internet Searches and Web Design,” “Advanced Information Retrieval and Analysis Strategies,” “Digital Content Creation and Management,” and “Information Literacy Instruction.” My research interests cover cataloging and classification, information organization, metadata, information retrieval, information architecture, digital collections, scholarly communication, digital scholarship, data management, user interaction with information systems, and others.

III. LIBRARY RECORDS

8. I am fully familiar with a library cataloging encoding standard known as the “**M**achine-**R**eadable **C**ataloging” standards, also known as “MARC.” The standards were developed by Henriette Avram in the 1960s for libraries to create and share bibliographic records. MARC became the national standard for sharing bibliographic data in the United States by 1971 and the international standard by 1973. It is the primary metadata transmission standard for the transfer and storage of bibliographic metadata in libraries. Experts in my field would reasonably rely upon MARC records when forming their opinions.

9. The MARC standards define the field designation, structure and content designation of MARC records. A MARC bibliographic record consists of fields, and each field provides specific information, such as author, about the item represented by the record. MARC uses a simple three-digit numeric code to identify each field, and most fields have field-specific indicators and subfields. **Appendix D** is a copy of Parts 7 to 10 of “Understanding MARC Bibliographic” (<http://www.loc.gov/marc/umb/>) from the Library of Congress that explains commonly used MARC fields. For example, the personal author of a publication is recorded in Field 100, the title is recorded in Field 245, information about the place of publication and publisher is recorded in Field 260, the physical format and characteristics of a publication are recorded in Field 300, and topical information is recorded as subject headings in Field 650 (Field 650 can be repeated to encode multiple topics).

10. Online Computer Library Center (OCLC) is a global nonprofit library cooperative that manages the largest bibliographic network of the world, with more than 380 million records and 16,964 member institutions (many of which are libraries of some type) in 122 countries. 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

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