

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE, INC. (“APPLE”)

Petitioner

- vs. -

UNILOC LUXEMBOURG, S.A. (“UNILOC”)

Patent Owner

U.S. Patent No. 8,872,646

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**DECLARATION OF INGRID HSIEH-YEE, PHD,  
UNDER 37 C.F.R. § 1.68**

I, Ingrid Hsieh-Yee, Ph.D., do hereby declare as follows:

1. I have been retained as an independent expert witness on behalf of Apple, Inc. (“Apple”) for an *Inter Partes* Review (“IPR”) of U.S. Patent No. 8,872,646 (“the ’646 patent”).

2. I am being compensated for my work in this matter at my accustomed hourly rate of \$160.00. 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 these is a type of material that experts in my field would reasonably rely upon when forming their opinions:

- (1) David Mizell (“Mizell”), 2003, “Using Gravity to Estimate Accelerometer Orientation,” – *ISWC 2003: Proceedings of the Seventh IEEE International Symposium on Wearable Computers*, **APPL-1007**;
- (2) MARC Record Information for *ISWC 2003: Proceedings of the Seventh IEEE International Symposium on Wearable Computers*, available at the online catalog of the Library of Congress at <https://catalog.loc.gov/vwebv/staffView?searchId=21369&recPointer=0&recCount=25&searchType=1&bibId=13594985>, accessed

October 27, 2017, **Appendix C**;

- (3) Bibliographic Record Information for *ISWC 2003: Proceedings of the Seventh IEEE International Symposium on Wearable Computers*, available at the Library of Congress online catalog at <https://lcn.loc.gov/2004272708>, accessed October 27, 2017,

**Appendix D**;

- (4) Ron Goldman (“Goldman”), “Using the LIS3L02AQ Accelerometer,” Sun Microsystems Inc. Dated February 23, 2007. **APPL-1004**;
- (5) Burrough, Tim (“Burrough”), “SENSID on SUN SPOTs,” 2008, found at “<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.622.9964&rep=rep1&type=pdf>. **Appendix E**.

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.

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 more than 25 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, including “Cataloging and Classification,” “Internet Searches and Web Design,” “Advanced Cataloging and Classification,” “Organization of Internet Resources,” “Advanced Information Retrieval and Analysis Strategies,” and “Digital Content Creation and Management.” My research interests cover cataloging and classification, information organization, metadata, information retrieval, information architecture, digital collections, scholarly communication, user interaction with information systems, and others.

8. I am fully familiar with a library cataloging encoding standard known as the “Machine-Readable Cataloging” standard, also known as “MARC,” which became the national standard for sharing bibliographic data in the United States by 1971 and the international standard by 1973. MARC is the primary communications protocol 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. 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 follows. **Appendix B** is a true and correct 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 the work is recorded in Field 100, the title is recorded in Field 245, publisher information is recorded in Field 260, and the physical volume and characteristics of a publication are recorded in Field 300, and topical subjects are recorded in the 650 fields.

10. Online Computer Library Center (OCLC) is the largest bibliographic network of the world, with more than 380 million records and more than 16,900 member institutions (many of which are libraries of some type) from 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 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

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