

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TREND MICRO, INC.

v.

WEBROOT, INC.

Petition for *Inter Partes* Review of

U.S. Patent No. **8,201,243**

DECLARATION OF INGRID HSIEH-YEE, PH.D.

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I. Introduction

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

1. I have personal knowledge of all of the matters about which I testify in this declaration.

2. I have been retained as an independent expert witness on behalf of Trend Micro, Inc. (“TREND”) for proceedings before the United States Patent and Trademark Office (“PTO”) regarding the authenticity and public availability of certain prior art reference in relation to US Patent No. 8,201,243 (“the ’243 patent”).

3. I am being compensated for my work in this matter at my customary hourly rate. I am also being reimbursed for any reasonable 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.

A. Qualifications and Professional Experience

4. My complete qualifications and professional experience are described in my academic curriculum vitae (**Appendix A**). The following is a brief summary of my relevant qualifications and professional experience.

5. I was a professor of the Department of Library and Information Science of the Catholic University of America for 32 years and retired in August 2022. In December 2022 I was conferred the title of Professor Emerita. I have experience working in an academic library, a medical library, and a legislative library. 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.

6. I am an expert on library cataloging and classification and have published two editions on this subject, *Organizing Audiovisual and Electronic Resources for Access: A Cataloging Guide* (2000 and 2006). I taught a variety of courses, including Cataloging and Classification, Advanced Cataloging and Classification, Organization of Internet Resources, Organization of Information, Digital Content Creation and Management, Metadata, Internet Searches and Web Design, Information Literacy Instruction, Advanced Information Retrieval and Analysis Strategies, and The Information Professions in Society. I am familiar with metadata schema design and implementation. In my teaching I covered the design and implementation of metadata in libraries, databases, search engines, digital repositories, digital libraries, and digital archives. I also covered how information organization affects the discovery and access to digital resources on the Internet. My research interests cover cataloging and classification, information organization, metadata, information retrieval, information architecture, digital collections, scholarly communication, social media, user interaction with information systems, and others.

7. I am very 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 reasonably rely upon MARC records when forming their opinions.

8. A MARC record consists of 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 VII to X of “Understanding MARC Bibliographic: Machine-Readable Cataloging” (<http://www.loc.gov/marc/umb/um07to10.html>) from Library of Congress. *Understanding MARC Bibliographic* was originally published by the Follett Software Co. and copyrighted in 1988. Editions in 1989, 1990, 1994, 1998, 2000, 2003 and 2009 include changes. The latest edition was copyrighted in 2009. This document explains commonly-used MARC fields. For example, the personal author of a work is recorded in Field 100, the title is recorded in Field 245, publisher information is recorded in Field 260, the physical volume and characteristics of a publication are recorded in Field 300, and topical subjects are recorded in Fields 650.

9. The Online Computer Library Center (OCLC) is the largest bibliographic network of the world, with more than 548 million records and thousands of member institutions (many of which are libraries of some type) in more than 100 countries. OCLC was founded in 1967 to promote and support library cooperation. According to the “Third Article, Amended Articles of Incorporation of OCLC Online Computer Library Center, Inc.,” 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” (source: <https://www.oclc.org/content/dam/oclc/membership/articles-of-incorporation.pdf>).

10. OCLC members can contribute original cataloging records in MARC to the system or derive cataloging records from existing records, an activity referred to as “copy cataloging.” When an OCLC participating institution acquires a work, it can create an original MARC record for the work in OCLC’s Connexion system (a system for catalogers to create and share MARC records), and the system will automatically generate a code for the date of record creation in the yymmdd format,

and the creating library's OCLC symbol is recorded in subfield "a" of the 040 field. Once the MARC record is in Connexion, it becomes available to other OCLC members for adoption to their local online catalogs (*i.e.*, copy cataloging).

11. After a MARC record is created in Connexion, it also becomes searchable and viewable on WorldCat, which is a free web portal for users to explore more than 10,000 libraries worldwide. Records in WorldCat, however, are not presented in MARC fields. Instead, the data elements are labeled to help users interpret the record. Thus, the information stored in MARC records in Connexion is available to the interested public through the user-friendly WorldCat web portal.

12. WorldCat (<http://www.worldcat.org>) is "the world's largest network of library content and services" and its features are summarized in "What is WorldCat" (<https://www.worldcat.org/about>). WorldCat began operation in January 1998 as a free web portal to more than 10,000 libraries worldwide. Through WorldCat, users can search for information resources in their local libraries and libraries around the world. WorldCat allows users to search for books, CDs, videos, and many new types of digital content, such as audiobooks, in many languages. Users can also retrieve research materials and article citations with links to their full text. After an item is retrieved, WorldCat helps users identify a library nearby that holds the item or all the libraries that hold the item. WorldCat is an efficient way to explore the content

held by more than 10,000 libraries around the world. WorldCat is publicly accessible, and there is no fee to perform a search on WorldCat.

13. Library online catalogs gained acceptance in the early 1980s and many libraries migrated their systems to the World Wide Web in the mid-1990s. Library online catalogs are based on MARC records that represent their collections in order to help the public understand what materials are publicly accessible in those libraries. Most libraries with online catalogs have made their catalogs freely available on the Web. These online catalogs offer user-friendly search interfaces. Strong user interest in keyword searches and the popularity of Google have led to the “googlization” of library search systems. As a result, many library catalogs now provide a single search box for users to conduct keyword searches, with additional support for searches by author, title, subject terms, and other data elements such as ISBN (International Standard Book Number). Library catalogs these days also offer features for users to narrow their search results by language, year, format, and other elements. Many libraries display MARC records on their online catalogs with labels for the data elements to help the public interpret MARC records. Many libraries also offer the option to display MARC records in MARC fields.

14. Libraries create MARC records for works they acquire, including books, serials, motion pictures, and publications in other formats. Monograph cataloging is fairly common in libraries, and most libraries make a newly cataloged

monograph available to the public soon after the cataloging work is completed, usually within a week. Libraries can create original cataloging records or use an existing record in OCLC to create a copy cataloging record. As soon as the cataloging record is completed, it is added to the library's online catalog for users. If the record is an original record, it is also entered into the OCLC system. If it is a copy cataloging record, the library's holding symbol is attached to the existing original record in the OCLC system to facilitate searching and interlibrary loan.

15. I am personally familiar with many online catalogs, databases, and search engines. In preparing for this declaration, I used the following authoritative information systems to search for records:

- Google Scholar (<https://scholar.google.com>)
- IEEE Xplore Digital Library (<https://ieeexplore.ieee.org/Xplore/home.jsp>)
- Internet Archive (<https://archive.org/>)
- Online catalog of the Linda Hall Library
(https://catalog.lindahall.org/discovery/search?vid=01LINDAHALL_INS_T:LHL)
- WorldCat (<https://www.worldcat.org>)

B. Scope of This Declaration

16. I have been asked to offer opinions on the authenticity and public availability date of the following document:

Abad, C., Taylor, J., Sengul, C., Yurcik, W., Zhou, Y., & Rowe, K., (2003, December), Log correlation for intrusion detection: A proof of concept, in the *19th Annual Computer Security Applications Conference, 2003, Proceedings*, pp. 255-264, **Ex. 1006** (“Abad”).

17. I am rendering my expert opinion on the authenticity of the documents referenced herein and on whether they were published. I will provide my opinion on when and how these documents were publicly disseminated or otherwise made publicly available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, could have located and retrieved these documents.

18. I am informed by counsel that an item is considered authentic if there is sufficient evidence to support a finding that the item is what it is claimed to be. I am also informed that authenticity can be established based on the contents of the documents themselves, such as the appearance, content, substance, internal patterns, protocols followed or other distinctive characteristics of the item.

19. I am informed by counsel that a given reference is “published” if it is publicly accessible upon a satisfactory showing that such a document has been disseminated or otherwise made publicly available to the extent that persons interested and ordinarily skilled in the subject matter or art could locate it exercising reasonable diligence and obtain the document. I have also been informed by counsel

that materials available in a library constitute “printed publications” if they are cataloged and indexed according to general library practices and protocols that make the references available and accessible to members of the interested public.

20. I have been informed by counsel that the '243 patent was filed in the United States on April 20, 2006, and that it does not claim priority to a parent application. I have assessed public accessibility of the documents referenced below as of this claimed priority date.

C. Person of Ordinary Skills in the Art

21. I am told by counsel that the subject matter of this article relates to computer security.

22. I have been informed by counsel that a “person having ordinary skill in the art at the time of the inventions” (PHOSITA) is a hypothetical person who is presumed to be familiar with the relevant field and its literature at the time of the inventions. This hypothetical person is also a person of ordinary creativity, capable of understanding the scientific principles and literature applicable to the pertinent field.

23. I am told by counsel that persons of ordinary skill in this subject matter or art would have had a bachelor’s degree in computer science, computer engineering or a related field, or an equivalent technical degree or equivalent work experience, and an additional one to two years of education or experience in the field

of network communications. More education can supplement practical experience and vice versa.

24. It is my opinion that such a person would have been actively engaged in learning about the field, possibly through formal instruction through the bibliographic resources. By at least April 20, 2006, such a person would have had access to a vast array of print and electronic resources, including at least the documents referenced below.

D. Evidence Considered in Forming My Opinions

25. In the preparation of this declaration, I have reviewed the documents referenced below and any other documents I reference herein, and each of these is a type of material that experts in my field would reasonably rely upon when forming their opinions:

- (1) The document referenced above in Section I.B;
- (2) IEEE metadata record for *Abad*, available at <https://ieeexplore.ieee.org/abstract/document/1254330> from the IEEE Xplore Digital Library, accessed and obtained on August 16, 2023, **Appendix 1006A**;
- (3) Library copy of *Abad*, obtained from Linda Hall Library, **Appendix 1006B**;
- (4) Bibliographic and MARC records for the proceedings of the *19th Annual Computer Security Applications Conference* that contains *Abad*, available at

https://catalog.lindahall.org/permalink/01LINDAHALL_INST/191da7s/alma993789913405961 from the online catalog of the Linda Hall Library, accessed and obtained on August 16, 2023, **Appendix 1006C**;

- (5) Conference webpage for *Abad*, archived by the Internet Archive on December 28, 2003, available at https://web.archive.org/web/20031228104517fw_/http://www.acsa.org/2003/abstracts/80.html, and copy of *Abad*, archived by the Internet Archive on January 4, 2004, available at <https://web.archive.org/web/20040104202043/http://www.acsac.org/2003/papers/80.pdf>, accessed and obtained on August 16, 2023, **Appendix 1006D**;
- (6) The registration website of the 19th Annual Computer Security Applications Conference, archived by the Internet Archive on December 12, 2003, available at <https://web.archive.org/web/20031212181101/http://www.regmaster.com/acsac2003.html>, accessed and obtained on August 16, 2023, **Appendix 1006E**;
- (7) Early citations to *Abad*, obtained from Google Scholar, **Appendix 1006F**.

These records are identified and discussed in this declaration. Experts in the field would reasonably rely on the data described herein to form their opinions.

II. Authenticity and Public Availability of *Abad* (Ex. 1006)

A. Authentication

- 26. **Ex. 1006** is a true and correct copy of “Log correlation for intrusion

detection: A proof of concept,” (*Abad*”), by Abad et al., in the *19th Annual Computer Security Applications Conference, 2003, Proceedings*, pp. 255-264, that I obtained from the IEEE Xplore Digital Library (“IEEE Xplore”). When I began preparing this declaration, I searched Google Scholar for *Abad* for records, and a record link led me to an IEEE metadata record for this article at <https://ieeexplore.ieee.org/abstract/document/1254330>. I then followed the PDF link in the record to purchase this article from the Institute of Electrical and Electronics Engineers (“IEEE”). This IEEE copy is presented as **Ex. 1006** in this declaration.

27. **Ex. 1006** is a true and correct copy of *Abad* obtained from the publisher IEEE. Page 1 shows the title, authors, and abstract. The footer shows *Abad* appears in the “Proceedings of the 19th Annual Computer Security Applications Conference (ACSAC 2003),” which is part of the conference proceedings series whose ISSN (International Standard Serial Number) is 1063-9527. This page shows *Abad* has a “2003” copyright date and IEEE is the copyright holder. The lower right corner of each page shows “IEEE Computer Society” and the logo of the Society. **Ex. 1006** shows *Abad* has a total of 10 pages, including 11 sections, three tables, two figures, and 27 references. The pages in this electronic copy are not numbered.

28. **Ex. 1006** is in a condition that creates no suspicion about its authenticity. Specifically, this copy is not missing any intermediate pages, the text

on each page appears to flow seamlessly from one page to the next, and there are no visible alterations to the document. Moreover, **Ex. 1006** was found in the custody of the publisher, a place where, if authentic, it would likely be found. I therefore see no reason to question the authenticity of this IEEE copy of *Abad* (**Ex. 1006**).

B. IEEE Metadata Record

29. **Appendix 1006A** is a true and correct copy of the metadata record for *Abad* on IEEE Xplore. I personally located, identified, and obtained this record. It is the type of record experts in my field would reasonably rely on when forming their opinions. I used screen captures to produce this appendix.

30. Page 1 of **Appendix 1006A** shows the title, authors, and abstract of *Abad*, and these details are the same as the details contained in **Ex. 1006**, confirming this metadata record represents *Abad*. Page 1 also shows IEEE as the publisher, and indicates *Abad* has 40 citations in papers, 27 citations in patents, and 951 full text views on IEEE Xplore. The metadata on page 2 show the conference proceedings that includes *Abad*, “08-12 December 2003” as the date of the conference, “10.1109/CSAC.2003.1254330” as the article DOI (digital object identifier), and “0-7695-2041-3” as the ISBN (International Standard Book Number) of the conference proceedings containing *Abad*. The “Date Added to IEEE Xplore” field shows the metadata record was entered into IEEE Xplore on “08 January 2004,” making *Abad* discoverable on IEEE Xplore from that date on. Interested users would have been

able to discover this record and use it to purchase *Abad* or access this article for free from institutions with a subscription to IEEE Xplore. IEEE Xplore was launched in May 2000 and the general public can search the system for free, it is therefore my opinion that *Abad* would have become publicly accessible by January 8, 2004.

C. Linda Hall Library

31. To determine if *Abad* was available in libraries, I searched WorldCat by the ISBN of the conference proceedings containing *Abad*, and found a record at <https://www.worldcat.org/title/53978883> that shows Linda Hall Library is one of the 225 holding libraries of this work. After verifying the holdings information in their online catalog, I requested a copy of *Abad* from the library's Document Delivery Service. This library copy is presented as **Appendix 1006B** in this declaration.

32. **Appendix 1006B** is a true and correct copy of *Abad* obtained from Linda Hall Library. Pages 1 to 10 (internal pages 255 to 264) are the full text of this article. I have closely compared this library copy with the IEEE copy (**Ex. 1006**) and found them to have the same content. The differences are that the library copy is a print copy that shows page numbers and has no footer information included in the publisher's electronic copy of this article.

33. Page 11 is the title page that shows "Proceedings, 19th Annual Computer Security applications Conference, 8-12 December 2003, Las Vegas, Nevada, sponsored by Applied Computer Security Associates" and indicates this

work was published by IEEE (the Institute of Electrical and Electronics Engineers, Inc.) and the IEEE Computer Society of Los Alamitos, California. This page also carries a label stating “[t]he CD included with this book is cataloged as CDROM 850. See Reference Librarian for assistance.” Page 12 is the copyright page that shows a hand-written call number of “QA76.9 .A25C65 2003” and a 2003 copyright date with IEEE as the copyright holder. The page also shows PR02041 as the IEEE Computer Society order number for this work, 0-7695-2041-3 as the ISBN, and 1063-9527 as the ISSN. Pages 13 to 19 are the table of contents and page 13 (internal page v) shows a library stamp of “LINDA HALL LIBRARY, Kansas City, Mo.” and a hand-written annotation of “1-5-04” that indicates this work was added to the library collection on January 5, 2004. My knowledge of this practice is based on my experience with the Linda Hall Library collections and staff. Page 15 (internal page vii) shows *Abad* was included in “Track A: Event Correlation” and begins on internal page 255. Page 20 is the cover of the conference proceedings.

D. Linda Hall Library Records

34. **Appendix 1006C** is a true and correct copy of the bibliographic and MARC records for the *19th Annual Computer Security Applications Conference* that contains *Abad*. I personally located, identified and obtained these records from the online catalog of the Linda Hall Library. These are the type of records experts in my field would reasonably rely upon when forming their opinions. I used screen

captures to produce this appendix.

35. Pages 1 to 3 of **Appendix 1006C** are the bibliographic record that shows this publication is a conference proceeding that is available at “Linda Hall Library Books – 2nd Floor (QA76.9.A25 C65 2003) and other locations.” Page 2 shows details of this work, including the title, other title, creator/contributor, subjects, identifiers, publisher, creation date, format, and general notes.

36. Page 4 is the MARC record. The first six digits of Field 008 show the record was created on “040105” (*i.e.*, January 5, 2004), and the “s2003” code following the record creation date indicates this work has a single publication date of 2003. Subfields “a” and “c” of Field 040 show “LHL” created this MARC record. According to the *Directory of OCLC Members* (<https://www.oclc.org/en/contacts/libraries.html>), LHL is the OCLC library symbol for the Linda Hall Library. Data in Fields 008 and 040 inform my opinion that Linda Hall Library created the original MARC record for this work on January 5, 2004, making this conference proceedings (and *Abad* contained therein) discoverable in that library from that date on.

37. Fields 020 of the MARC record show the 13-digit and 10-digit ISBNs for this work. Field 111 shows the conference name is used as the author of this work. Field 245 shows the title, Field 246 shows a variant title is included to help users discover this work, Field 260 shows the publisher information and the

copyright date, Field 300 shows physical details, and Field 500 explains the work is accompanied by a CD-ROM, which was cataloged separately by the library as “CDRM 850.” Another Field 500 shows the IEEE Computer Society order number for this work, Field 530 informs users this work is also available on the world Wide Web, and Field 710 shows the conference sponsor is included to help users discover this work.

38. Subject of this work is represented in Field 090 by a Library of Congress Classification number of “QA76.9.A25” that represents “Access control. Computer security” (source: Library of Congress Classification Schedule Q, at https://www.loc.gov/aba/publications/FreeLCC/LCC_Q2023TEXT.pdf). Subject is also represented in Field 650 by a Library of Congress subject heading, with “Computer security” as the main heading, followed by a form subheading “Congresses” encoded in subfield “v” (“\$v”) to indicate the main topic is treated at a conference. These subject representations support users to conduct subject searches to discover the conference proceedings containing *Abad*.

39. This MARC record (**Appendix 1006C**) was completed on January 5, 2004, and it has made the conference proceedings containing *Abad* discoverable in the library catalog of the Linda Hall Library from that date on. This record date is consistent with the date annotation in the library copy (**Appendix 1006B**) that shows the conference proceedings was added to the Linda Hall Library collection on

January 5, 2004. Interested users would have been able to discover this work by the conference name, ISBNs, title, variant title, and conference sponsor. They would have also been able to discover this work by the classification number and the subject heading assigned to this work. A customary library practice is to process a newly cataloged work promptly to make it publicly accessible, usually within one week after the cataloging work is completed. It is therefore my opinion that, after processing, the library copy would have become publicly accessible by January 12, 2004, at Linda Hall Library.

E. Internet Archive Records

40. To determine if *Abad* was publicly accessible on the Internet, I searched the Internet Archive for records. **Appendix 1006D** contains a webpage for *Abad* from the conference website and an archived copy of *Abad*. I personally located, identified, and obtained these records. They are the type of record experts in my field would reasonably rely upon when forming their opinions.

41. Page 1 is an archived copy of the webpage for *Abad* from the conference website, available at https://web.archive.org/web/20031228104517fw_/http://www.acsac.org/2003/abstracts/80.html, that shows the title, authors, abstract and keywords of this article, and provides a link to the PDF of *Abad*. Page 2 is a screen capture of a Wayback Machine calendar that shows the original URL of the *Abad* article was

<http://www.acsac.org/2003/papers/80.pdf> and it was archived 11 times between “4 Jan 2004” and “11 Aug 2017.” The calendar also shows this particular copy was archived on “JAN 04 2004” and is available at <https://web.archive.org/web/20040104202043/http://www.acsac.org/2003/papers/80.pdf>. Pages 3 to 12 are the full text of *Abad*. I have closely compared this archived copy with the publisher copy (Ex. 1006) and found them to have the same content. The only difference is the archived copy does not have the footer information included in the publisher copy.

42. Internet Archive is a digital library that archives scholarly materials, cultural artifacts, and other web resources on the Internet and provides the public with free access to its collections. I have used the Internet Archive in the past and am familiar with their practice of assigning an extended URL to an archived resource in the format of [http://www.archive.org/web/\[Year in yyyy\]\[Month in mm\]\[Day in dd\]\[Time code in hh:mm:ss\]/\[Archived URL\]](http://www.archive.org/web/[Year in yyyy][Month in mm][Day in dd][Time code in hh:mm:ss]/[Archived URL]) to show the point of time the archived file was captured. Internet Archive usually does not archive web resources as soon as they appear on the Internet, so the archive date is usually not the first public availability date of an archived resource. Furthermore, a web resource needs to be available on the Internet before it can be archived. For these reasons, the archive date in the extended URL means that a web resource was publicly available before, and definitely no later than, the archive date. The URL of the archived copy of the

webpage for *Abad* shows that it was archived on “20031228104517” (*i.e.*, December 28, 2003, at 10 a.m., 45 minutes, 17 seconds), and the URL of the archived copy of *Abad* shows it was archived on “20040104202043” (*i.e.*, January 4, 2004, at 8 p.m., 20 minutes, 43 seconds). These dates inform my opinion that *Abad* would have become publicly accessible via the webpage for *Abad* by December 28, 2003 and the article would have been publicly accessible no later than January 4, 2004, on the Internet.

43. In addition, the conference website shows *Abad* would have been publicly accessible even earlier. **Appendix 1006E** is a true and correct copy of the conference registration website. Page 1 is a Wayback Machine calendar that shows the original URL for the registration website was <http://www.regmaster.com/acsac2003.html> and it was archived nine times between “9 Oct 2003” and “28 Apr 2005.” The calendar also shows this particular copy was archived on “DEC 12 2003” and is available at <https://web.archive.org/web/20031212181101/http://www.regmaster.com/acsac2003.html>. It is therefore my opinion that this archived copy of this website would have been publicly available by December 12, 2003.

44. Pages 2 to 4 are the PDF copy of this conference registration website, and page 4 indicates the ACSAC-19 “conference registration fee includes the attendance at conference program sessions, a copy of the conference proceedings.”

Based on **Appendix 1006E**, it is my opinion that the conference proceedings containing *Abad* would have become publicly accessible to the conference attendees at the conference in December 2003.

F. Usage Record

45. Actual usage of a publication is reflected by other publications that make reference to it. The citation history on Google Scholar shows *Abad* has been cited 179 times. **Appendix 1006F** is a citation list I compiled from Google Scholar to demonstrate early usage in 2004 and 2005. The earliest citation appeared in August 2004.

G. Summary of My Opinion on *Abad*

46. The IEEE metadata record for *Abad* shows this article was indexed by IEEE on January 8, 2004 (**Appendix 1006A**), making it discoverable on IEEE Xplore from that date on. The annotation on the Linda Hall Library copy of *Abad* (**Appendix 1006B**) shows the conference proceedings containing *Abad* was added to this library's collections on January 5, 2004, and the MARC record for this work was completed on January 5, 2004 (**Appendix 1006C**), making this work discoverable in the library online catalog from that date on, and the library copy, after processing, would have been publicly accessible by January 12, 2004. Internet Archive records (**Appendices 1006D** and **1006E**) show the conference proceedings was included in the conference registration and conference attendees would have

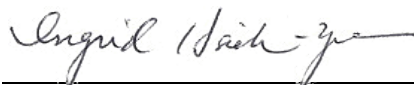
received their copies at the conference in December 2003, the webpage for *Abad* with a link to the article would have been publicly accessible by December 2003, and the *Abad* article itself would have been publicly accessible on the Internet by January 4, 2004. Citation history shows the earliest citation appeared in August 2004 (**Appendix 1006F**). In short, the documents and records I have reviewed inform my opinion that *Abad* would have become publicly accessible as early as December 2003, and no later than January 12, 2004.

III. Conclusion

47. In signing this declaration I recognize that the declaration will be filed as evidence in a Petition for *Inter Partes* Review before the Patent Trial and Appeal Board of the United States Patent and Trade Mark Office. I also recognize that I may be subject to deposition in the case. If deposition is required of me, I will appear at a reasonable time and place to be agreed upon.

48. I hereby declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Date: Sept. 7, 2023

Executed: 
Ingrid Hsieh-Yee, Ph.D.