

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMERICAN EXPRESS COMPANY, AMERICAN EXPRESS TRAVEL  
COMPANY, INC., EXPEDIA, INC., HOTELS.COM LP, HOTELS.COM  
GP, LLC, HOTWIRE, INC., ORBITZ WORLDWIDE, INC.,  
PRICELINE.COM, INC., TRAVELOCITY.COM LP, and YAHOO! INC.  
Petitioner

v.

METASEARCH SYSTEMS, LLC.  
Patent Owner

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Case No. CBM2014-00001  
Patent Number 8,326,924 B1

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Before the Honorable HOWARD B. BLANKENSHIP, KARL D. EASTHOM, and  
BARBARA A. BENOIT, *Administrative Patent Judges*.

**DECLARATION OF DR. JAIME CARBONELL  
IN SUPPORT OF PATENT OWNER METASEARCH SYSTEMS, LLC's MOTION TO  
AMEND**

## **Declaration of Dr. Jaime Carbonell**

### **Qualifications**

1. I am presently a chaired professor at Carnegie Mellon University's School of Computer Science and Director of the Language Technologies Institute.
2. I am also presently an adjunct faculty member at the University of Pittsburgh Medical School's Department of Computational Biology.
3. I received my B.S. in Physics and Mathematics from the Massachusetts Institute of Technology in 1975. I received my MS in Computer Science and my Ph.D. in Computer Science from Yale University in 1976 and 1979, respectively.
4. I have been a faculty member of Carnegie Mellon University since 1979. While at Carnegie Mellon University, I served as Director of the Center for Machine Translation from 1986 to 1996, which evolved into the Language Technologies Institute in 1996. I am also a co-Founder and Board Chairman of Carnegie Speech Incorporated, and was Co-Founder and Board Chairman of Wisdom Technologies Corporation.
5. My research interests and areas of expertise include data mining, natural language processing, search engines, electronic commerce, databases, algorithms, and machine learning.
6. I have authored or co-authored over 330 publications and have given over 500 invited or refereed paper presentations. During the late 1990s and early 2000s, I published or presented on a number of topics related to database

searching and data mining. This includes Ralf D. Brown, Thomas Pierce, Yiming Yang, and Jaime G. Carbonell, “Link Detection - Results and Analysis,” *Topic Detection and Tracking Workshop*, 1999; Carbonell, J., and Goldstein, J., “MMR and Diversity-Based Reranking for Reordering Documents and Producing Summaries,” *Proceedings of the 21st meeting of International ACM SIGIR Conference*, Melbourne, Australia, August 1998, pp. 335-336; Goldstein, J. and Carbonell, J., Carbonell, J. G., Yang, Y., Frederking, R. E., Brown, R., Geng, Y., and Lee, D., “Translingual Information Retrieval: A Comparative Evaluation,” *Proceedings of The International Conference on Artificial Intelligence*, Nagoya, Japan, 1997, (Distinguished paper award). and Carbonell, J. G., Goldstein, J., Yibing, G., “Automated Query-Relevant Summarization and diversity-based reranking,” *Proceedings of the IJCAI-97 workshop on AI in Digital Libraries*, Nagoya, Japan, 1997.

7. During my tenure at Carnegie Mellon University, I was a Ph.D. advisor to Michael Mauldin, the founder of Lycos Inc. (an early web search engine), and co-advisor to Oren Etzioni, founder of MetaCrawler.

8. I regularly teach courses in search engines, data mining and electronic commerce at CMU.

9. I have been a member of numerous professional organizations including the Association for Computing Machinery (ACM), the Association for Computational Linguistics (ACL), and the Association for the Advancement of Artificial Intelligence (AAAI). I was elected chair of ACM’s Special Interest Group

on Artificial Intelligence (SIGART) from 1983 to 1985. I have been an AAAI Fellow since 1988.

10. I have participated in a number of governmental groups. To name a few, I have been a member of the National Science Foundation's Directorate for Computer and Information Science and Engineering Advisory Committee since 2010. From 1988 to 1992 I was a member of the National Institute of Health's Human Genome Scientific Advisory Committee. I was also a member of the Scientific Advisory Committee to the National Institute of Standards and Technology (NIST) that focused on speech, language and information retrieval from 1997 to 2001.

11. My industry experience included consulting in support of the launch of the Lycos Inc. internet search engine in 1998-1999, and consulting for the launch of the search engine, Searchline, from 2002 to 2004. I also served on Citibank's technology advisory board for 10 years, focusing on text and data mining, fraud detection, and optimization. In total, I have designed or co-designed three data mining engines, and evaluated and helped improve numerous other data mining engines, including the machine learning algorithms that they are based on.

12. I am a named inventor on several issued patents including U.S. Patent No. 5,995,920, "Computer-based method and system for monolingual document development," and U.S. Patent No. 6,163,785, "Integrated authoring and translation system."

13. I am being compensated by counsel at my rate of \$550/hour plus reimbursement for normal expenses incurred. I have no financial interest in the outcome of the related litigations or this proceeding.

#### Scope of this Declaration

14. I offer this declaration in support of Patent Owner's Motion to Amend claims of U.S. Patent No. 8,326,924 (the "924 patent"). I first address construction of the term "database," which is used in the proposed substitute claims, claims 13 and 14. Then I address how claims 13 and 14 do not claim an abstract idea.

#### Claim Construction of "Database"

15. Substitute claims 13 and 14 use the phrase "database." I understand database to have its common computer-science meaning, namely an organized electronic repository of structured, semi-structured or unstructured information. The patent's specification and drawings show a database that can store previously searched information. See Fig 53A and B, and Ex. 2001 at p. 243, Col. 36, l. 54-Col. 37, l. 32.; Ex. 2117 at p. 177, l. 11- p. 179, l. 23. for support). Generally speaking, databases store data for subsequent rapid use. The use of the database, claimed in substitute claim 13 (Exhibit 2018) and substitute claim 14 (Exhibit 2019) conforms to this general rule.

16. If the entries in the database are recent (up to date), then such a database saves time, rendering the metasearch more efficient. If it is not recent, its results can still be combined with those from external searches, though that

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