

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.

Petitioner,

v.

EVOLUTIONARY INTELLIGENCE

Patent Owner

Patent No. 7,010,536

Issued: March 7, 2006

Filed: January 28, 1999

Inventor: Michael De Angelo

Title: SYSTEM AND METHOD FOR CREATING
AND MANIPULATING INFORMATION
CONTAINERS WITH DYNAMIC REGISTERS

Inter Partes Review No. IPR2014-00083

DECLARATION OF HENRY HOUH

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I. INTRODUCTION

A. Engagement

1. I have been retained by counsel for Apple Inc. (“Apple”) as an expert witness in the above-captioned proceeding. I have been asked to provide my opinion about the state of the art of the technology described in U.S. Patent No. 7,010,536 (“the ’536 patent”) and on the patentability of the claims of this patent. The following is my written declaration on these topics.

B. Background and Qualifications

2. My Curriculum Vitae is submitted herewith as Exhibit 1004.
3. I received a Ph.D. in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology in 1998. I also received a Master of Science degree in Electrical Engineering and Computer Science in 1991, a Bachelor of Science Degree in Electrical Engineering and Computer Science in 1990, and a Bachelor of Science Degree in Physics in 1989.
4. As further indicated in my C.V., I have worked in the electrical engineering and computer science fields, including web search and web server development, on several occasions. As part of my doctoral research at MIT from 1991-1998, I worked as a research assistant in the Telemedia Network Systems (TNS) group at the Laboratory for Computer Science. The TNS group built a high speed gigabit network and applications which ran over the network, such as remote video capture, processing, segmentation and search on computer terminals. In

addition to helping design the core network components, designing and building the high speed links, and designing and writing the device drivers for the interface cards, I also set up the group's web server, which at the time was one of the first several hundred web servers in existence.

5. I authored or co-authored twelve papers and conference presentations on our group's research. I also co-edited the final report of the gigabit networking research effort with the Professor (David Tennenhouse) and Senior Research Scientist of the group (David Clark), who is generally considered to be one of the fathers of the Internet Protocol.

6. I started building web servers in 1993, having set up the web server for the MIT Telemedia, Networks, and Systems Group, to which I belonged. It was one of the first several hundred web servers in existence, and went on to provide what was likely one of the first live Internet video sessions initiated from a web site. I co-authored papers on our web server video system and on database-backed web sites for which I attended the first World Wide Web conference to present.

7. From 1997 to 1999, I was a Senior Scientist and Engineer at NBX Corporation, a start-up that made business telephone systems that streamed packetized audio over data networks instead of using traditional phone lines. NBX was later acquired by 3Com Corporation, and the phone system is still available

and being used at tens of thousands of businesses or more. As part of my work at NBX, I designed the core audio reconstruction algorithms for the telephones, as well as the packet transmission algorithms. I also designed and validated the core packet transport protocol used by the phone system. The protocol is used millions of times daily currently. Two of the company founders and I received US Patent No. 6,697,963 titled “Telecommunication method for ensuring on-time delivery of packets containing time sensitive data,” for some of the work I did there.

8. Starting in 2001, I was architect for the next generation of web testing product by Empirix known as e-Test Suite. e-Test Suite is now owned by Oracle Corporation. e-Test provided functional and load testing for web sites. e-Test emulated a user's interaction with a web site and provided web developers with a method of creating various scripts and providing both functional testing (e.g., did the web site provide the correct response) and load testing (e.g., could the web site handle 5000 users on its web site simultaneously). Among Empirix’s customers was H&R Block, who used e-Test Suite to test the tax filing functionality of their web site as whether the web site could handle a large expected load prior to the filing deadline.

9. Around 2006, I helped create a search engine for audio and video which could be searched based on spoken word content. Our system used speech recognition and natural language processing to create a search index of audio and

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