IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: John Albert Kembel, et al.

U.S. Patent No.: 8,510,407 Attorney Docket No.: 39843-0149IP1

Issue Date: August 13, 2013

Appl. Serial No.: 11/932,553

Filing Date: October 31, 2007

Title: DISPLAYING TIME-VARYING INTERNET BASED DATA

USING APPLICATION MEDIA PACKAGES

DECLARATION OF DR. PHILIP GREENSPUN

Declaration

I 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 under Section 1001 of Title 18 of the United States Code.

By: Thelep Greenspun
Philip Greenspun, Ph.D.

I. OUALIFICATIONS AND BACKGROUND INFORMATION

- 1. I have been retained on behalf of Samsung Electronics Co., Ltd. ("Petitioner") and asked to review and provide my opinion on the patentability of claims 1-24 of U.S. Patent No. 8,510,407 ("the '407 patent").
- 2. A detailed description of my professional qualifications, including a listing of my specialties/expertise and professional activities, is contained in my curriculum vitae, a copy of which is provided along with this declaration. In what follows, I provide a short summary of my professional qualifications.
- 3. In terms of my background and experiences that qualify me as an expert in this case, I earned a Ph.D. in Electrical Engineering and Computer Science from Massachusetts Institute of Technology in 1999. I also obtained a Bachelor of Science Degree in Mathematics from Massachusetts Institute of Technology in 1982 and a Master of Science Degree in Electrical Engineering and Computer Science from Massachusetts Institute of Technology in 1993.
- 4. My Ph.D. thesis concerned the engineering of large online Internet communities with a Web browser front-end and a relational database management system (RDBMS) containing site content and user data.
- 5. I have authored five computer science textbooks in total, including Database Backed Web Sites (Macmillan), Software Engineering for Internet Applications (MIT Press), and a SQL language tutorial.



- 6. I have served as an independent member of various advisory and corporate boards, mostly for technology companies. For example, I joined the corporate board of an MIT materials science spin-off in late 2005 during a \$550,000 seed capital phase. I stepped down when the company secured \$10 million in venture capital in mid-2007.
- 7. I have previously served as an expert witness for Amazon.com, IBM, Microsoft, Xerox, and Google, among others, in patent cases.
- 8. I began working full-time as a computer programmer in 1978, developing a database management system for the Pioneer Venus Orbiter at the National Aeronautics and Space Administration's Goddard Space Flight Center.
- 9. Some of my pre-Web work as a software developer included building computer programs that ran on desktop computers with window systems and that downloaded information from servers. For example, I built a system for Fidelity Investments that downloaded financial market information and produced graphs and charts on a Macintosh computer in the 1980s.
- 10. I developed my first program using a relational database management system in 1994. It was a Web interface to the Children's Hospital Oracle RDBMS version 6. This enabled doctors at the hospital to view patient clinical data using any computer equipped with a Web browser.



- 11. In 1995, I led an effort by Hearst Corporation to set up an infrastructure for Internet applications across all their newspaper, magazine, radio, and television properties. This infrastructure included software for managing users, shopping carts, electronic commerce, advertising, and user tracking.
- 12. Between 1995 and 1997, I significantly expanded the photo.net online community that I had started, in 1993, in order to help people teach each other to become better photographers. I began distributing the source code behind photo.net to other programmers as a free open-source toolkit, called "ArsDigita Community System."
- 13. The photo.net site enabled users to upload photos as attachments to discussion forum postings and also, beginning in 1999, included a complete photosharing system along the lines of Flickr.
- 14. In May 1997, Macmillan published my first textbook on Internet Application development, "Database Backed Web Sites." This book advises readers that server-based programs should, to the extent possible, summarize information from the database and make previews of content available so that users don't have to navigate as much. See Chapter 13, for example: "One-line summaries of the newest [classified] ads should be displayed on the very first page of the system. Users shouldn't have to click to see ads."



- 15. In 1997, I started a company, ArsDigita, to provide support and service for the free open-source toolkit. Between 1997 and the middle of 2000, I managed the growth of ArsDigita to 80 people, almost all programmers, and \$20 million per year in annual revenue. This involved supervising dozens of software development projects, nearly all of which were Internet Applications with a Web front-end and an Oracle RDBMS back-end. As the founder, CEO, and chief technical employee of the company, I personally developed functional specifications, SQL data models (Structured Query Language, or "SQL," is the standard programming language for relational database management systems), and Web page flows that determined the user experience. Our work at ArsDigita included "push technology" and representing data in XML and HTML.
- 16. Between 2000 and the present, I have done software development projects for philip.greenspun.com and photo.net, two online services that are implemented as relational database management applications. In addition, I developed postclipper.com, a database-backed Web application that works in conjunction with Facebook to allow parents to produce electronic baby books based on photographs previously included in Facebook posts.
- 17. Separately from this commercial and public work, I have been involved, as a part-time teacher within the Department of Electrical Engineering and Computer Science, educating students at MIT in how to develop Internet



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