Resume of Michael Ian Shamos

Current to February 11, 2020

Education

A.B. (1968) <u>Princeton University</u> (<u>Physics</u>). Thesis: "Gravitational Radiation Reaction." Advisor: John A. Wheeler.

M.A. (1970) <u>Vassar College</u> (<u>Physics</u>). Thesis: "<u>An Absorber Theory of Acoustical</u> Radiation." Advisor: Morton A. Tavel.

M.S. (1972) American University (Technology of Management).

M.S. (1973) Yale University (Computer Science).

M.Phil. (1974) Yale University (Computer Science).

Ph.D. (1978) <u>Yale University</u> (<u>Computer Science</u>). Thesis: "<u>Computational Geometry</u>". Thesis committee: David Dobkin, Martin H. Schultz, Stanley C. Eisenstat.

J.D. (1981) <u>Duquesne University</u>, cum laude.

Foreign Languages

French, Russian (good reading and technical translation skills, fair conversational ability).

Academic Experience

Distinguished Career Professor, <u>Institute for Software Research</u> and <u>Language Technologies</u> Institute, School of Computer Science, Carnegie Mellon University (2001-)

Principal Systems Scientist (1998-2001)

Principal Lecturer (2002-2003). Teaching Professor (2003-)

Faculty, Tepper School of Business, Carnegie Mellon University (1999-2004).

Co-Director, Carnegie Mellon Institute for eCommerce (1998-2004)

Vice-Chair, University Research Council (2000-2002)

Director, eBusiness Technology degree program, Carnegie Mellon (2003-2018)

Director, M.S. in Artificial Intelligence and Innovation, Carmegie Mellon (2018-)

Core faculty, Privacy Engineering degree program (2013-)

Director, Universal Library, Carnegie Mellon University (1998-)

Visiting Professor, Faculty of Engineering, The University of Hong Kong (2001-)

Adjunct Faculty, Carnegie Mellon University, Department of Computer Science (1981-1998) Assistant Professor, Carnegie Mellon University, Departments of Computer Science and

Mathematics (1975-81), Dept. of Statistics (1978-81).



Courses taught (Carnegie Mellon):

Algorithm Design and Analysis 15-451 (Comp. Sci.)

Intellectual Capital and its Protection 45-886 (MBA)

Ecommerce Technology 20-751 (MSEC program)

Electronic Payment Systems 20-753 (MSEC program), 96-774 (MSIT program)

Ecommerce Law and Regulation 46-840 (MSEC program)

Electronic Voting 17-803

Ubiquitous Computing, 96-761 (MSIT Program)

Electronic Payment Systems (MSIT Program)

<u>Law of Computer Technology</u>, 17-762/17-662/17-562 (2007-)

Artificial Intelligence and Future Markets, 11-561 (2018-)

Honors and Awards

Fellow, Society of the Sigma Xi (1974-83).

IBM Fellowship, Yale University (1974–75).

SIAM National Lecturer (1977–78).

Distinguished Lecturer (computer science), <u>University of Rochester</u> (1978); <u>McGill University</u> (1979).

Duquesne University Law Review (1980-81).

Black & White Scotch Achiever's Award (first annual, 1991, for contributions to bagpipe musicography).

<u>Industry Service Award</u> of the <u>Billiard and Bowling Institute of America</u>, 1996 (for contributions to billiard history).

Billiard Worldcup Association official referee (2001-)

Editorships

Editor-in-Chief, Journal of Privacy Technology (2003-2006).

Member of Editorial Board, Electronic Commerce Research Journal (2000-).

Member of Editorial Board, *Pittsburgh Journal of Technology Law and Policy* (1999-2003).

Dr. Shamos has reviewed scientific papers for <u>Communications of the ACM</u>, <u>Mathematical</u> <u>Reviews, IEEE Computer, IEEE Transactions on Computers, Information Processing Letters,</u> <u>Journal of the ACM</u> and the <u>Journal of Computational Physics</u>.



Contributing Editor, *Billiards Digest* magazine (1990-).

Patents

Co-inventor with K. Srinivasan, U.S. Patent <u>7,330,839</u>, "Method and System for Dynamic Pricing," issued February 12, 2008.

Co-inventor with K. Srinivasan, U.S. Patent <u>7,421,278</u>, "Method and Apparatus for Time-Aware and Location-Aware Marketing," issued September 2, 2008.

Co-inventor with K. Srinivasan, U.S. Patent <u>7.747,465</u>, "Determining the Effectiveness of Internet Advertising," issued June 29, 2010.

Co-inventor with K. Srinivasan, U.S. Patent <u>8,195,197</u>, "Method and Apparatus for Time-Aware and Location-Aware Marketing," issued June <u>5, 2012</u>.

Co-inventor with K. Srinivasan, U.S. Patent <u>8,280,773</u>, "Method and Apparatus for Internet Customer Retention," issued October 2, 2012.

Legal Experience

Special Counsel, Reed Smith LLP (2000-2003), electronic commerce law.

Shareholder, <u>The Webb Law Firm</u> (1996-2000), intellectual property law. Associate (1990-95).

Private practice of law (1987-90), intellectual property

Associate, law firm of <u>Buchanan, Ingersoll, P. C.</u> (1985-87)(now Buchanan Ingersoll & Rooney, PC), Emerging Companies Department.

General Counsel, Carnegie Group, Inc. (1983-85), artificial intelligence company.

Private practice of law (1981-83), computer law.

Bar Admissions

Supreme Court of Pennsylvania (1981–).

<u>United States District Court for the Western District of Pennsylvania</u> (1981–).

<u>United States Patent and Trademark Office</u> (1981–).



<u>United States Tax Court</u> (1982–).

<u>United States Court of Appeals for the Armed Forces</u> (1982–).

<u>United States Court of Appeals for the Third Circuit</u> (1982–).

<u>United States Supreme Court</u> (1985–).

<u>United States Court of Appeals for the Federal Circuit</u> (1985–).

Expert Witness

Dr. Shamos has served as an expert witness in multiple computer software and electronic voting cases. He has participated in the cases listed below. "D" indicates deposition testimony; "R" indicates report, declaration or affidavit; "T" indicates trial testimony.

Total: 281 cases: 217 patent, 14 electronic voting, 14 trade secret, 11 copyright, 36 other. Affidavits, reports or declarations submitted in 202 cases.

Deposed 128 times.

Testified at trial or hearing in 44 cases.

Participated in 3 reexams, 3 PGRs, 63 IPRs and 23 CBMs

- 1. *C.W. Communications, Inc. v. International Research Service, Inc.*, Civil Action No. 84-890, (W.D. Pa. 1984), aff'd. Case No. 88-3331 (3d Cir., Oct. 31, 1988). Served as an expert for plaintiff publisher as to the fame of its "Computerworld" trademark. Result: permanent injunction entered against defendant. Judge McCune's Memorandum and Order states. "We accept the conclusion drawn by Dr. Shamos." Firm: Webb, Burden Robinson & Webb (now the Webb Law Firm). (D,T)
- 2. *E.F. Hutton, Inc. v. Gipson* (W.D. Pa. 1985). Served as an expert for defendant-counterclaimant physician as to fraud in the inducement by a computer hardware supplier. Plaintiff had provided capital financing for the purchase. Result: defendant was awarded compensatory damages + \$250,000 punitive damages. (D,T)
- 3. *In re Comprehensive Business Systems*, 119 B.R. 573 (S.D. Ohio 1990). Served as an expert for a secured creditor in a bankruptcy case in which the creditor sought to obtain software still in development for which it had advanced over \$2 million in funding. Dr. Shamos opined as to the value of the incomplete software. Result: the creditor was able to purchase the software from the Trustee for \$67,500. The Court referred in its opinion to "the testimony of the eminent and impressive Dr. Shamos." (D,R,T)
- 4. *Levinson Steel Co. v. American Software, Inc. et al.*, Civil Action No. 96-282, W.D. Pa. (1996). Served as an expert for plaintiff in a case involving bad faith estimates of computer processing capacity resulting in delivery of an inadequate system. Result: settlement in favor of



- plaintiff in an undisclosed amount. Contact: <u>Reed Smith LLP</u>, 225 Fifth Ave., Pittsburgh, PA 15222. (D,R)
- 5. ASE Limited v. INCO Alloys International, Inc., Civil Action No. 98-1266, (W.D. Pa. 1998). Served as an expert for defendant concerning breach of computer services contract by declaratory judgment plaintiff. Result: determination that defendant was free to seek services from a different vendor. Firm: Reed Smith LLP, 225 Sixth Ave., Pittsburgh, PA 15222. Attorney: Anthony Basinski, Esq. (D,T)
- 6. Twentieth Century Fox Film Corp. v. iCraveTV., 53 U.S.P.Q. 2d 1831 (W.D. Pa. 2000). Served as an expert for Plaintiffs concerning Internet technology used to stream video from U.S. TV stations through web sites in Canada. Result: TRO and preliminary injunction issued against defendants prohibiting continued infringement in the U.S. Firm: Reed Smith LLP. Attorney: Gregory Jordan, Esq. (T)
- 7. Invited testimony before the British House of Lords, Subcommittee B of the European Union Committee, April 20, 2000. Subject: European regulation of eCommerce. View <u>testimony</u>.
- 8. *Universal Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), aff'd 273 F.3d 429 (2d Cir. 2001). Served as an expert for plaintiff movie studios concerning accused software for decrypting DVDs in the first case interpreting the Digital Millennium Copyright Act. Result: permanent injunction issued in favor of plaintiffs on August 17, 2000. Contact: William Hart, Esq., Proskauer Rose LLP. View testimony. View opinion. View appellate opinion. (D,T)
- 9. *MercExchange*, *L.L.C.* v. eBay, *Inc.* et al., Case No. 2:01-CV-736 (E.D. Va. 2001). Served as an expert for defendant <u>eBay</u> in an infringement case concerning U.S. Patent <u>6,202,051</u> for Internet auctions. Following Dr. Shamos' reports, Defendants obtained a summary judgment of noninfringement of the subject patent. On the other patents, the case went to the U.S. Supreme Court, which ruled that injunctions are not automatic in patent cases. Contact: <u>Tim Teter, Esq.</u>, <u>Cooley LLP.</u> (D,R)
- 10. *Powerquest Corp. v. Quarterdeck Corp. et al.*, Case No. 2:97-CV-0783 (D. Utah 1997). Served as an expert for plaintiff <u>PowerQuest</u> in an infringement case concerning U. S. Patents <u>5.675,769</u> and <u>5.706,472</u> for a method of resizing hard disk partitions. Dr. Shamos testified at the Markman hearing. Case settled when one of the defendants acquired plaintiff. Attorney: <u>Gregg I. Anderson</u>, Esq., formerly at Merchant & Gould, now an Administrative Patent Judge at the Patent Trial and Appeal Board. (R,T)
- 11. *Sightsound.Com Inc. v. N2K Inc. et al.*, C.A. 98-118 (W.D. Pa. 1998). Served as an expert for defendants, including a subsidiary of Bertelsmann AG, concerning validity of U.S. Patents <u>5,191,573</u> and <u>5,966,440</u> for distribution of digital audio via telecommunications lines. Case settled. Firm: Parcher, Hayes & Snyder, (no longer in existence). Contact: <u>Steven M. Hayes</u>, <u>Esq., Simmons Hanley Conroy, LLC</u>, 112 Madison Ave., New York, NY 10016. (D,R)
- 12. Freemarkets, Inc. v. B2eMarkets, Inc., C.A. 02-162-SLR (D. Del. 2002). Served as an expert witness for plaintiff concerning infringement of U.S. patents <u>6,216,114</u> and <u>6,223,167</u>,



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