

**EXHIBIT I:
DAVIS RESUME
PUBLICATIONS
LIST OF CASES**

RANDALL DAVIS

Randall Davis received his undergraduate degree from Dartmouth, graduating summa cum laude, Phi Beta Kappa in 1970, and received a Ph.D. from Stanford in artificial intelligence in 1976.

In 1978 he joined the faculty of the Electrical Engineering and Computer Science Department at MIT, where from 1979-1981 he held an Esther and Harold Edgerton Endowed Chair. He later served for 5 years as Associate Director of the Artificial Intelligence Laboratory. He is currently a Full Professor in the Department, and a Research Director of CSAIL, the newly-formed Computer Science and Artificial Intelligence Laboratory that resulted from the merger of the AI Lab and the Lab for Computer Science. He and his research group are developing advanced tools that permit natural, sketch-based interaction with software, particularly for computer-aided design and design rationale capture.

Dr. Davis has been one of the seminal contributors to the field of knowledge-based systems, publishing some 50 articles and playing a central role in the development of several systems. He serves on several editorial boards, including *Artificial Intelligence*, *AI in Engineering*, and the MIT Press series in AI. He is the co-author of *Knowledge-Based Systems in AI*, and was selected in 1984 as one of America's top 100 scientists under the age of 40 by *Science Digest*. In 1986 he received the *AI Award* from the Boston Computer Society for his contributions to the field. In 1990 he was named a Founding Fellow of the American Association for AI and in 1995 was elected to a two-year term as President of the Association. From 1995-1998 he served on the Scientific Advisory Board of the U. S. Air Force.

Dr. Davis has been a consultant to several major organizations, including Digital Equipment Corp, IBM, Aetna, and Schlumberger, and has been involved in the founding of three software companies.

Dr. Davis has also been active in the area of intellectual property and software. In 1990 he served as expert to the Court (Eastern District of NY) in *Computer Associates v. Altai*, a software copyright infringement case whose decision resulted in the articulation of the abstraction, filtration, comparison test. He served on the panel run by the Computer Science and Telecommunications Board (CSTB) of the National Academy of Science in 1991 that resulted in *Intellectual Property Issues in Software*, and served as a member of the Advisory Board to the US Congressional Office of Technology Assessment study on software and intellectual property that was published in 1992 as *Finding a Balance: Computer Software, Intellectual Property, and the Challenge of Technological Change*. A 1994 paper in the *Columbia Law Review* analyzed the difficulties in applying intellectual property law to software and proposed a number of remedies. From 1998-2000 he served as the chairman of the National Academy of Sciences study on intellectual property rights and the information infrastructure entitled *The Digital Dilemma: Intellectual Property in the Information Age*, published by the National Academy Press in February, 2000.

Dr. Davis has appeared on *The Macneil/Lehrer Report* and *Innovations* (WNET, NY), and played a major role in *This Computer Thing*, a pilot for an educational series (WGBH, Boston) about personal computers. He has been quoted in articles in *The New York Times*, *The Wall Street Journal*, *Business Week*, *The Economist*, *The Boston Globe*, *High Technology*, and *Psychology Today*. Interviews have appeared in *Computerworld* and on National Public Radio's *All Things Considered*. He has been a featured speaker in Texas Instrument's Satellite Symposium, and on Electronic Data Systems' internationally broadcast "Directions" program.

Publications in the Last Ten Years

- Veselova ,Olya, and Davis Randall. Perceptually Based Learning of Shape Descriptions for Sketch Recognition, Proceedings IJCAI 2004.
- Hammond, Tracy and Davis, Randall. Automatically Transforming Symbolic Shape Descriptions for Use in Sketch Recognition, Proceedings IJCAI 2004.
- Hammond, Tracy and Davis, Randall. LADDER: A Language to Describe Drawing, Display, and Editing in Sketch Recognition. Proceedings IJCAI 2003.
<http://fracas.ai.mit.edu/drg/pubs/hammond/2003HammondIJCAI.pdf>
- Alvarado, Christine and Davis, Randall. A Framework for Multi-Domain Sketch Recognition. 2002 AAAI Spring Symposium on Sketch Understanding.
<http://fracas.ai.mit.edu/drg/pubs/alvarado/alvarado-aaai-ss2002.pdf>
- Davis, Randall. Position Statement and Overview: Sketch Recognition at MIT. 2002 AAAI Spring Symposium on Sketch Understanding.
<http://www.ai.mit.edu/projects/rationale/PDFfiles/DavisAAAIS02abs.pdf>
- Hammond, Tracy and Davis, Randall. Tahuti: A Geometrical Sketch Recognition System for UML Class Diagrams. 2002 AAAI Spring Symposium on Sketch Understanding.
<http://fracas.ai.mit.edu/drg/pubs/hammond/SSS902Hammond.pdf>
- Hammond, Tracy and Gajos, Krzysztof and Davis, Randall and Shrobe, Howard. An Agent-Based System for Capturing and Indexing Software Design Meetings. Proceedings of 2002 International Workshop on Agents in Design (WAID 2002), August 28-30 2002.
<http://fracas.ai.mit.edu/drg/pubs/hammond/2002HammondWAID.doc>
- Alvarado, Christine and Davis, Randall. Resolving ambiguities to create a natural sketch based interface. Proceedings of IJCAI-2001, August 2001
<http://fracas.ai.mit.edu/drg/pubs/alvarado/alvarado-ijcai01.pdf>
- Alvarado, Christine and Davis, Randall. Preserving the freedom of paper in a computer-based sketch tool. Proceedings of HCI International 2001.
<http://fracas.ai.mit.edu/drg/pubs/alvarado/alvarado-hcii2001.pdf>
- Oltmans, Michael and Davis, Randall. Naturally Conveyed Explanations of Device Behavior. Proceedings of PUI-2001, November 2001.
<http://fracas.ai.mit.edu/drg/pubs/moltmans/oltmans-pui-2001.pdf>
- Sezgin, Metin; Stahovich, Thomas and Davis, Randall (2001). Sketch Based Interfaces: Early Processing for Sketch Understanding. Proceedings of PUI-2001, November 2001.
<http://www.ai.mit.edu/projects/rationale/PDFfiles/sezgin-pui-2001.pdf>

Davis R, The Digital Dilemma, *Communications of the ACM*, February, 2001, pp.77-83.

Committee on Intellectual Property Rights (Randall Davis, chair), National Academy of Science, *The Digital Dilemma: Intellectual Property Rights in the Information Age*, National Academy of Science Press, 2000.

<http://books.nap.edu/catalog/9601.html>

Stahovich T, Davis R, Shrobe H, Qualitative Rigid Body Mechanics, *Artificial Intelligence* (119) 2000 pp. 19-60

Stahovich T, Davis R, Shrobe H, Generating multiple new designs from a sketch, *Artificial Intelligence* (104)1-2 (1998) pp. 211-264.

Samuelson P, Davis R, Kapor M, Reichman J, A Manifesto Concerning the Legal Protection of Computer Programs, *Columbia Law Review*, Vol. 94, December 1994, pp. 1401-1524.

Cases in which Randall Davis has testified or been deposed

Computer Associates v. Altai, CV 89-011 EDNY
775 F. Supp. 544 (E.D.N.Y. 1991); 982 F 2d 693
Rule 706 expert to the court (testified)
copyright concerning IBM operating systems software.
Case appealed; appeal court decision created the Abstraction, Filtration, Comparison test.

Goal Systems v. J. W. Bennett Co., C2-90-681 SD Ohio
consultant to plaintiff (deposed); settled
copyright involving mainframe job scheduling software

Gates Rubber, Inc., v. Bando American, Inc., 92-S-136 CO
(798 F. Supp. 1499)
expert for plaintiff (deposed, testified)
copyright and trade secret involving industrial belt design software

Logica North America v. Intelsat, AAA Case No. 16 117 00084 92M
expert for plaintiff (testified)
breach of contract involving satellite communications scheduling software

Mitek Holdings, Inc. v. Arce Engineering, 91-2629 SD FL
(864 F. Supp. 1568)
expert for plaintiff (deposed, testified)
copyright concerning architectural and structural design software

Fonar Corp v. Deccaid Services, et al., CV 91-3805, ED NY
consultant to defendant (deposed)
copyright concerning medical instrumentation software

Star Technology, Inc v. Tultex Corporation, et al., 3-91-CV-1067-X, Dallas, TX
consultant to defendant (deposed)
copyright concerning factory automation software

US Department of Justice investigation, 1994
consultant to the DOJ on its re-investigation of the INSLAW matter
investigated alleged copyright theft and coverup by the FBI

Sitrick v. Nintendo of America, Inc, N D Illinois 94 C5515
consultant to defendant (deposed); settled
software patent concerning game software

INSLAW Inc., v. The United States of America, Court of Federal Claims 95-338X
(40 Fed. Cl. 843; 1998 U.S. Claims)
expert for the defendant (deposed, testified)
copyright concerning database software
investigated alleged copyright theft by the FBI, National Security Agency, Drug Enforcement Agency, US Customs Service, and the Defense Intelligence Agency.

Cadence Design Systems, Inc., v. Avanti! Inc., C 95-20828 RMW, ND CA
expert for plaintiff (deposed, filed under seal); case settled in 2002 for \$265 million
software copyright concerning computer aided design software

Automated Tracking Systems v. Great American Insurance Company
American Arbitration Association Case 53 195 00090 95, May 1997
consultant to plaintiff
software copyright concerning database software

Computer Aid v Hewlett Packard Company
consultant to defendant; deposed
software copyright and trade secret regarding network analysis software

Commonwealth of MA v. Ellis, (criminal case), Boston MA, 1999
97-0193 (1-12), 97-0561 (1-16)
consultant to defendant; testified in evidentiary hearing
criminal case; issues involving electronic search and seizure

Universal Computer Systems Inc., v. Dealer Solutions LLC, 99-11466, Harris Cty, Texas
deposed, testified for defendant in arbitration hearing June 2003
software for automobile dealerships

Boron LePore & Associates Inc., v. DigiNet LLC, Miller, Freed, Crooks, Wood and Lilley
Sole arbitrator in binding arbitration.
Trade secret regarding meeting planning software

Computer Sciences Corp et al. v Policy Management Systems Corp et al.,
00CA033SS WD TX
Expert witness for defendant; testified in arbitration hearing
Trade secret concerning software for analysis of bodily injury insurance claims

IMS Health, Inc. v. Vality Technology, Inc., 99-CV-1500, ED PA
consultant to plaintiff; deposed; case settled
copyright and trade secret regarding database cleaning software

Norwest Corporation v. IRS Commissioner, *Docket 13908-92, 20567-93, 26213-93*
110 T.C. 454; 1998 U.S. Tax Ct.; June 29, 1998

expert witness for IRS, testified
research and experimentation tax credit for software

LinkCo v. Fujitsu, 00 Civ 7242 (SAS)
expert witness for defendant, deposed, testified at trial
trade secret issues in investor relations/corporate disclosure software