# EXHIBIT F

**IN THE UNITED STATES DISTRICT COURT**
**FOR THE DISTRICT OF DELAWARE**

| | | |
|---|---|---|
| LEADER TECHNOLOGIES, INC., a Delaware corporation, | ) | |
| | ) | Civil Action No. 1:08-cv-08-862-JJF |
| Plaintiff,-Counterdefendant, | ) | |
| v. | ) | **DISCLOSURE OF EXPERT TESTIMONY FOR JAMES HERBSLEB, PH.D. PURSUANT TO FED. R. CIV. P. 26(A)(2)** |
| FACEBOOK, INC., a Delaware corporation, | ) | |
| Defendant-Counterclaimant | ) | |

Plaintiff Leader Technologies, Inc. ("Leader") submits the following disclosure of expert testimony for James Herbsleb, Ph.D. pursuant to Rule 26(a)(2) of the Fed. R. Civ. P. This expert is engaged in ongoing refinement of his opinions and expected testimony, and Leader specifically reserves the right to modify or supplement the information contained in this disclosure pursuant to the Federal Rules of Civil Procedure.

I, James Herbsleb, Ph.D., submit the following expert report on behalf of Leader. All opinions and facts stated herein are true and correct to the best of my knowledge. I reserve the right to modify or supplement this disclosure if more information is made available to me.

1. I am a Professor of Computer Science and Director of the Software Industry Center at Carnegie Mellon University.

2. In 1991, I received a M.S. in Computer Science from the University of Michigan. I also have a Ph.D. in Cognitive Social Psychology (1984) and J.D. (1980) from the University of Nebraska.

3. My research focuses on collaborative technologies and practices for global software development. I served as PI on two completed and one ongoing NSF-funded project investigating various aspects of collaborative software engineering. My research interests are in geographically-distributed software engineering, open source software development, collaboration over distance, and tools and technologies that support coordination.

4. I have authored more than 70 publications, including journal publications.

5. The details about my work experience and education are summarized in my curriculum vitae ("CV") attached hereto as Exhibit A, which also contains a list of publications I authored within the last 10 years. This report is based on my education, professional career and relevant experience, as well as the materials reviewed.

6. I am being compensated for my time as an expert witness for Leader in this litigation at a rate of $300 an hour, or $2,500 per day.

7. In the past four years I have not testified at trial or at deposition.

8. I intend to give a tutorial of the technology involved in this case. In preparation for this tutorial, I intend to create graphic depictions and/or tables and charts for exhibits to aid the Court in its understanding of the technology involved. However, at this time I have not specifically created any exhibits for this litigation.

9. In preparation of this expert report I relied exclusively on U.S. Patent No. 7,139,761 (the "'761 Patent"), the Court's claim construction order related to this patent, and my knowledge of computer science.

## BASIC INTERNET INFRASTRUCTURE

10. A web site is hosted on a web server, one or more computer systems running specialized software for storing and retrieving data. The web site can be accessed over the Internet by a client. The Internet is an extremely large computer network which spans the world, and connects billions of computers together. A client is a computer connected to the Internet, and is typically operated by a user. A common way of viewing information from the Internet is through a computer application called a "web browser." The web site will typically send information to the client and which will be displayed on the web browser. The information displayed on the web browser is commonly referred to as a "webpage." The webpage is generated from the web server, as is the functionality of the webpage. When a client connected to the Internet, it is commonly referred to as being "online."

11. When a client accesses a web site, the communications between the web server and the client form a session. At the start of the session, a web site may have a user log-in and provide credentials which identifies and authenticates the user.

12. After the user has been authenticated, the web site may generate a webpage which allows a user to share content, such as pictures, video, and text documents, with other users. This would allow, for example, two friends who are located on different sides of the globe to share a photo. These friends could also share the photo with other users, demonstrating how content can be easily distributed online.

13. Content can have metadata associated with it. Metadata is commonly understood to be data about data. Examples of metadata include the time the content was created and who created the content.

## TRADITIONAL SYSTEMS

14. The '761 Patent describes several traditional systems for managing data. These systems were inefficient for large scale online collaboration because data was not shared in an efficient manner, and it lacked context surrounding online collaboration.

15. For example, many users organize their data in so called "folders," which mimic the operation of folders in the physical work. However, using hierarchical folders to store and organize data is highly inefficient. For example, if a file was associated with several different topics, in order to keep the folder in each topic, multiple locations would need to have the same file. As a result, the context of the file is completely dependent on which folder the user manually selects to put the file in. It is also difficult for other users to find data that the user organized into folders because the user's decisions about contexts of files are subjective.

## ONLINE COLLABORATION TOOL OF THE '761 PATENT

16. The '761 Patent discloses an online collaboration tool that facilitates efficient communication, organization, and content sharing between users and allows multiple users to share and use electronically stored content over a network.

17. The online collaboration tool described in the '761 Patent addresses the problems with traditional systems. The technology of the '761 Patent uses a server that hosts the online collaboration tool and is connected through the internet to the user's computer, typically running a web browser. The '761 Patent describes a technology where the user can upload content over the Internet, through the web browser on the user's computer, to the online collaboration tool. The online collaboration tool of the '761 Patent automatically associates context information with the content. This is described as being performed by a context component residing on the server, which associates the content with context information, relating to the context in which this content was created. This context information is stored as metadata and associated with newly created content. In this manner it provides valuable context to the content. This information is then stored on the back-end server in a database or other data storage means.

18. The online collaboration tool described in the '761 Patent also automatically tracks user actions within different environments on the online collaboration tool using a tracking component. For example, the user may move from their home page to the home page of a friend or coworker. The tracking component tracks the user's movement and automatically captures the user's actions where the user accesses or employs their previously uploaded content from this new context. The metadata associated with the data is then updated based on how content is used in the new context and what actions are taken. The type of user actions the tracking component captures includes identification of the user who performed the action, the time the action was taken, and context in which the action was taken.

19. The online collaboration tool described in the '761 Patent thereby automatically captures information about user content and leverages this information to allow effective collaboration. For example, the user content can be efficiently shared and used by many people using the online collaboration tool. The information about the user content can be used to avoid requiring multiple versions of a file, allowing a file to be uploaded once and accessed from multiple locations, by multiple users, in multiple contexts. Furthermore, a user can provide content in one context and have that content associated with multiple other contexts. This allows the user to use the content in different contexts and not have to re-upload content in the other contexts. The information can also be leveraged to allow users to easily search for particular files based on the captured metadata.

20. The highest contextual assumption of the online collaboration tool is that there exists an entity of one or more users and that the data storage model assumes that the content is associated with the user. Thus, metadata is created when a user creates an account, and that metadata gets constantly updated based on the content the user uploads, or actions the user takes.

Dated: April 8, 2010.

James Herbsleb, Ph.D.

# EXHIBIT A

# James D. Herbsleb

Professor of Computer Science
Director, Software Industry Center
Institute for Software Research
Carnegie Mellon University
April, 2010

## Coordinates

8117 Wean Hall
Pittsburgh, PA 15213
Phone: (412) 268-8933

E-mail: jdh@cs.cmu.edu
Web page: http://conway.isri.cmu.edu/~jdh/
Fax: (412) 268-7287

## Education

| | |
|---|---|
| 1991-93 | Postdoctoral Research Fellow, University of Michigan<br>Collaborative Software Engineering |
| 1991 M.S. | University of Michigan<br>Computer Science |
| 1984 Ph.D. | University of Nebraska<br>Cognitive Social Psychology |
| 1980 J.D. | University of Nebraska<br>Joint Program in Law and Psychology |
| 1976 B.A. | Monmouth College, Monmouth, Illinois<br>Psychology and Economics |

## Employment Experience

| | |
|---|---|
| 2002-present | Professor of Computer Science, Institute for Software Research, School of Computer Science, Carnegie Mellon University |
| 1996-2002 | Member of Technical Staff, Software Production Research Department, Lucent Technologies |
| 1994-96 | Member of Technical Staff, Software Engineering Institute, Carnegie Mellon University |
| 1991-93 | Postdoctoral Research Fellow, University of Michigan |
| 1992 | Lecturer, Department of Psychology, University of Michigan |
| 1988-91 | Research and Teaching Assistantships, Department of Electrical Engineering and Computer Science, University of Michigan |
| 1982-89 | Associate Professor, Department of Psychology, Hillsdale College, Hillsdale, Michigan |

## Publications

### Peer-Reviewed Journals

1. Gurbani, V.K., Garvert, A., & Herbsleb, J.D. (2010). Managing a Corporate Open Source Software Asset. *Communications of the ACM*, 53, 2, pp. 155-159.
2. Cataldo, M., Mockus, A., Roberts, J.A., & Herbsleb, J.D. (2009). Software Dependencies, Work Dependencies, and Their Impact on Failures. *IEEE Transactions on Software Engineering*, 99, 864-878.
3. Espinosa, A., Slaughter, S., Kraut, R., & Herbsleb, J. (2007). Familiarity, Complexity and Team Performance in Geographically Distributed Software Development. *Organization Science*, July-August,18, pp. 613 – 630.
4. Espinosa, J. A., Slaughter, S. A., Kraut, R. E., & Herbsleb, J. D. (2007). Team Knowledge and Coordination in Geographically Distributed Software Development. *Journal of Management Information Systems,* 24, 1, pp. 5 – 12.
5. Herbsleb, J.D. & Mockus, A. (2003). An Empirical Study of Speed and Communication in Globally-Distributed Software Development. *IEEE Transactions on Software Engineering, 29, 3*, pp. 1-14.
6. Mockus, A., Fielding, R., & Herbsleb, J.D. (2002). Two Case Studies of Open Source Software Development: Apache and Mozilla. *ACM Transactions on Software Engineering and Methodology, 11, 3,* pp. 309-346.
7. Colbert, R. O., Compton, D. S., Hackbarth, R. L., Herbsleb, J. D., Hoadley, L. A., & Wills, G. J. (2001). Advanced Services: Changing How We Communicate. *Bell Labs Technical Journal*, 6(1), Jan.-Jun. 2001, pp. 211-228.
8. Herbsleb, J.D. & Moitra, D. Global Software Development. IEEE *Software*, March/April 2001, pp. 16-20.
9. El Emam, K., Goldenson, D., McCurley, J., Herbsleb, J. D. (2001). Modeling the Likelihood of Software Process Improvement: An Exploratory Study. *Empirical Software Engineering, 6, 3*, pp. 207-229.
10. Herbsleb, J. D. & Grinter, R. E. (1999). Architectures, Coordination, and Distance: Conway's Law and Beyond. *IEEE Software*, Sept/Oct 1999, pp. 63-70.
11. Herbsleb, J. D., & Kuwana, E. (1998). An Empirical Study of Information Needs in Collaborative Software Design. *Journal of the Information Processing Society of Japan, 39, 3*, 1998.
12. Herbsleb, J. D., Zubrow, D., Goldenson, D., Hayes, W., & Paulk, M. (1997). Software Quality and the Capability Maturity Model. *Communications of the ACM*, 40, 30-40.
13. Herbsleb, J. D., Klein, H., Olson, G. M., Brunner, H., Olson, J. S., and Harding, J. (1995). Object-oriented analysis and design in software project teams. *Human Computer Interaction*, 10, 249-292.
14. Olson, G. M., Herbsleb, J. D., and Rueter, H. H. (1994). Characterizing the sequential structure of interactive behaviors through statistical and grammatical techniques. *Human Computer Interaction*, 9, 427-472.

15. Herbsleb, J.D., Sales, B.D., Overcast, T.D. (1985). Challenging Licensure and Certification, *American Psychologist*, Vol. 40, pp. 1165-1178.

## Peer-Reviewed Conferences

16. Wagstrom, P., Herbsleb, J.D., & Carley, K. (2010). Communication, Team Performance, and the Individual: Bridging Technical Dependencies. To appear, *Academy of Management Conference*. Received *Best Paper Award*.
17. Wagstrom, P., Mockus, A., Herbsleb, J.D., & Kraut, R.E. (2010). The Impact of Commercial Organizations on Volunteer Participation in an Online Community. To appear, *Academy of Management Conference*.
18. Dekel, U. & Herbsleb, J.D. (2009). Improving API Documentation Usability with Knowledge Pushing. In Proceedings, *International Conference on Software Engineering*, Vancouver, Canada, May 16-24, pp. 320-330.
19. Sarma, A., Maccherone, L., Wagstrom, P., & Herbsleb, J. (2009). Tesseract: Interactive Visual Exploration of Socio-Technical Relationships in Software Development. In Proceedings, *International Conference on Software Engineering*, Vancouver, Canada, May 16-24, pp. 23-33.
20. Herbsleb, J., Dabbish, L., Wagstrom, P., & Sarma, A.
21. Cataldo, M. & Herbsleb, J.D. (2008). Communication networks in geographically distributed software development. In Proceedings, *ACM Conference on Computer-Supported Cooperative Work*, San Diego, CA, Nov. 8-12, pp. 579-588.
22. Dekel, U. & Herbsleb, J.D. (2008). Pushing relevant artifact annotations in collaborative software development. In Proceedings, *ACM Conference on Computer-Supported Cooperative Work*, San Diego, CA, Nov. 8-12, pp. 1-4.
23. Cataldo, M., Herbsleb, J.D., Carley, K.M. (2008). Socio-technical congruence: a framework for assessing the impact of technical and work dependencies on software development productivity. In Proceedings, *Second ACM-IEEE International Symposium on Empirical Software Engineering and Measurement*, Kaiserslautern, Germany, Oct. 9-10, pp. 2-11. Received *ACM Distinguished Paper* award.
24. Cataldo, M., Bass, M., Herbsleb, J.D., Bass, L. (2007). On Coordination Mechanisms in Global Software Development. *International Conference on Global Software Engineering*, Munich, Germany, August 27-30, pp. 71-80.
25. Lescher, C., Bass, M., Herbsleb J.D. (2007). Collaboration in Global Software Projects at Siemens: An Experience Report. *International Conference on Global Software Engineering*, Munich, Germany, August 27-30, pp. 33-39.
26. LaToza, T.D., Garlan D., Herbsleb J.D., & Myers, B.A. (2007). Program Comprehension as Fact-Finding, in proceedings of the *European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering*, Dubrovnik, Croatia, September 3-7, pp. 361-370.
27. Dekel, U. & Herbsleb, J.D. (2007). Notation and Representation in Collaborative Object-Oriented Design, in Proceedings, *OOPSLA* 2007, pp. 261-280.

28. Bass, M., Herbsleb, J., Cataldo, M., Bass, L. Architectural Misalignment: An Experience Report. In Proceedings, *Sixth Working IEEE/IFIP Conference on Software Architecture.* Mumbai, India, January 6-9, 2007.

29. Ankolekar, A., Sycara, K., Herbsleb, J., Kraut, R., & Welty, C. (2006). Supporting online problem-solving communities with the semantic web. In Proceedings, *International World Wide Web Conference*, Edinburgh, Scotland, pp. 575-584.

30. Balan, R.K., Gergle, D., Satyanarayanan, M., & Herbsleb, J. (2006). Simplifying Cyber Foraging for Mobile Devices. In Proceedings, *ACM International Conference on Mobile Systems, Applications, and Services.* San Juan, Puerto Rico, June 11-14, pp. 272-285.

31. Cataldo, M., Wagstrom, P., Herbsleb, J.D., Carley, K. (2006). Identification of coordination requirements: Implications for the design of collaboration and awareness tools. In Proceedings, *ACM Conference on Computer-Supported Cooperative Work*, Banff Canada, pp. 353-362. Received *Best Paper Award.*

32. Herbsleb, J.D., Mockus, A., Roberts, J.A. (2006). Collaboration in Software Engineering Projects: A Theory of Coordination. *International Conference on Information Systems*, Milwaukee, WI. Received *Best in Track Award.*

33. Mullick, N., Bass, M., Houda, Z., Sangwan, R., Paulish, D., Cataldo, M., Herbsleb, J., Bass, L. (2006). Siemens Global Studio Project: Experiences adopting an integrated GSD infrastructure. *IEEE International Conference on Global Software Engineering.*

34. Gurbani, V.K., Garvert, A., Herbsleb J.D. A Case Study of a Corporate Open Source Development Model. (2006). In Proceedings, *International Conference on Software Engineering*, Shanghai, China, May 20-25, 2006, pp. 472-481.

35. Li, P.L., Herbsleb, J., Shaw, M., Robinson, B. (2006). Experiences and Results from Initiating Field Defect Prediction and Product Test Prioritization Efforts at ABB Inc. In *Proceedings of the International Conference on Software Engineering*, Shanghai, China, May 20-25, pp. 413-423.

36. Espinosa, A., Slaughter, S. A., Herbsleb, J. D. and Kraut, R. E. (2005). Coordination Mechanisms in Globally Distributed Software Development. In *Proceedings of the First International Conference on Management of Globally Distributed Work*, Bangalore, India.

37. Li, P.L, Herbsleb, J., Shaw, M. "Forecasting Field Defect Rates Using a Combined Time-based and Metrics-based Approach: a Case Study of OpenBSD". In *Proceedings of the 16th IEEE International Symposium on Software Reliability Engineering,* Nov 2005.

38. Herbsleb, J., Paulish, D.J., Bass, M. (2005). Global Software Development at Siemens: Experience from Nine Projects. *International Conference on Software Engineering* (ICSE), pp. 524 - 533, St. Louis, MO, May 15-21, 2005.

39. Wagstrom, P., Herbsleb, J., Carley, K. A Social Network Approach to Free/Open Source Software Simulation. To appear, the *First International Conference on Open Source Systems*, Genoa, Italy, July 11 - 15, 2005.

40. Li, P. L., Herbsleb, J., Shaw, M. Finding Predictors of Field Defects for Open Source Software Systems in Commonly Available Data Sources: a Case Study of OpenBSD (2005).

To appear, IEEE International Software Metrics Symposium, 19-22 September, Como, Italy.

41. Li, P., Shaw, M., Herbsleb J., Ray, B., & Santhanam, P. (2004). Empirical Evaluation of Defect Projection Models for Widely-deployed Production Software Systems. To appear, *ACM Symposium on the Foundations of Software Engineering* (FSE).

42. Herbsleb, J.D. & Mockus, A. (2003). Formulation and Preliminary Test of an Empirical Theory of Coordination in Software Engineering. In proceedings, *ACM Symposium on the Foundations of Software Engineering* (FSE), Helsinki, Finland, pp. 112-121.

43. Espinosa, J. A., Kraut, R.E., Slaughter, S. A., Lerch, J. F., Herbsleb, J. D., Mockus, A. Shared mental models, familiarity, and coordination: A multi-method study of distributed software teams (2002). *International Conference on Information Systems* (ICIS), Barcelona, Spain, December 15th – 18th, pp. 425-433.

44. Handel, M. & Herbsleb, J.D. (2002). What is Chat Doing in the Workplace? Proceedings of *ACM Conference on Computer-Supported Cooperative Work* (CSCW), New Orleans, LA, pp. 1-10.

45. Herbsleb, J.D., Atkins, D.L., Boyer, D.G., Handel, M., & Finholt, T.A. (2002). Introducing Instant Messaging and Chat into the Workplace. In proceedings of *ACM Conference on Computer-Human Interaction* (CHI), pages 171-178, Minneapolis, MN, April 20-25.

46. Mockus, A. & Herbsleb, J.D. Expertise Browser: A Quantitative Approach to Identifying Expertise (2002). In proceedings of *International Conference on Software Engineering* (ICSE), pp. 503-512, Orlando, FL, May 19-25.

47. Herbsleb, J.D., Mockus, A., Finholt, T.A., & Grinter, R.E. (2001). An Empirical Study of Global Software Development: Distance and Speed. In proceedings, *International Conference on Software Engineering* (ICSE), pages 81-90, Toronto, Canada, May 15-18.

48. Siy, H.P., Mockus, A, Herbsleb, J.D., Krishnan, M., and Tucker, G. T. (2001). Making the software factory work: Lessons from a decade of experience. In proceedings, *Metrics 2001: Seventh International Symposium on Software Metrics*, pages 317-327, London, England, April 4-6.

49. Mockus, A. & Herbsleb, J.D. Challenges of global software development. (2001). In proceedings, *Metrics 2001: Seventh International Symposium on Software Metrics*, pages 182-184, London, England, April 4-6.

50. Espinosa, J. A., Kraut, R.E., Slaughter, S. A., Lerch, J. F., Herbsleb, J. D., Mockus, A. (2001). Shared Mental Models and Coordination in Large-Scale, Distributed Software Development. To appear in proceedings, *International Conference on Information Systems* (ICIS), New Orleans, LA, December 16- 19.

51. Godefroid, P., Herbsleb, J.D., Jagadeesan, L.J., Li, D. (2000). Ensuring Privacy in Presence Awareness Systems: An Automated Verification Approach. In proceedings, *ACM Conference on Computer-Supported Cooperative Work* (CSCW), pages 59-68, Philadelphia, PA, Dec. 2-7.

52. Herbsleb, J.D., Mockus, A., Finholt, T.A., & Grinter, R.E. (2000). Distance, Dependencies, and Delay in a Global Collaboration. In Proceedings, *ACM Conference on Computer-Supported Cooperative Work* (CSCW), pages 319-328, Philadelphia, PA, Dec. 2-7.
53. Mockus, A., Fielding, R.T., & Herbsleb, J. (2000). A Case Study of Open Source Software Development: The Apache Server. In proceedings, *International Conference on Software Engineering* (ICSE), pages 263-272, Limerick Ireland, June 5-7. *Most Influential Paper Award, ICSE 2010.*
54. Herbsleb, J. D. & Grinter, R. E. (1999). Splitting the Organization and Integrating the Code: Conway's Law Revisited. In proceedings, *International Conference on Software Engineering* (ICSE), pages 85-95, Los Angeles, CA, May 16-22.
55. Herbsleb, J. D. Metaphorical Representation in Collaborative Software Engineering. (1999). In proceedings, *International Joint Conference on Work Activities, Coordination, and Collaboration*, pages 117-125, San Francisco, CA, February 22-25.
56. Grinter, R. E., Herbsleb, J. D., & Perry, D. E. (1999). The Geography of Coordination: Dealing with Distance in R&D Work. In proceedings, *International Conference on Supporting Group Work*, Phoenix, AZ, November 14-17.
57. Herbsleb, J. D. & Grinter, R. E. (1998). Conceptual Simplicity Meets Organizational Complexity: Case Study of a Corporate Metrics Program. In proceedings, *International Conference on Software Engineering* (ICSE), pages 271-280, Kyoto, Japan, April 19-25.
58. Herbsleb, J. D. & Goldenson, D. (1996). A systematic survey of CMM experience and results. In proceedings, *International Conference on Software Engineering* (ICSE), pages 323-330, Berlin, Germany, March 25-30.
59. Herbsleb, J. D., and Kuwana, E. (1993). Preserving knowledge in design projects: What designers need to know. In proceedings, *Human Factors in Computing Systems* (CHI), pages 7-14, Amsterdam, The Netherlands, April 24-29.
60. Kuwana, E. and Herbsleb, J.D. (1993). Representing knowledge in requirements engineering: An empirical study of what software engineers need to know. In proceedings, *IEEE International Symposium on Requirements Engineering*, p. 273-276, San Diego, CA, January 4-6.

## Book Chapters

61. Olson, G. M., Olson, J. S., Storrøsten, M., Carter, M., Herbsleb, J., and Rueter, H. (1996). The structure of activity during design meetings. In T. Moran & J. Carroll (Eds.) *Design Rationale: Concepts, Techniques, and Use*. Lawrence Erlbaum: Mahwah, NJ. pp. 217-239.
62. Goldenson, D.R., El Emam, K., Herbsleb, J., and Deephouse, C. (1998) Empirical studies of software process assessment methods, in T. P. Rout (ed.) Software Process Assessment and Improvement, Southampton, UK: Wit Press, 1998.

## Keynote addresses, Invited Talks

63. Herbsleb, J. (2010).
64. Herbsleb, J. (2010). Sociotechnical Ecosystems. IFIP WG 2.9, San Diego, February 10, 2010. (Invited presentation).

65. Herbsleb, J. (2009).

66. Herbsleb, J. (2008). Coordination in Global Development. University of British Columbia, October 2, 2008. (Distinguished Speaker Series).

67. Herbsleb, J. (2008). Tactics for Global Software Development: When to do What? *Siemens Software Engineering Conference*, July 17, 2008. (Keynote address).

68. Herbsleb, J. (2007). A Highly Selective, Deeply Biased, and Mildly Heretical View of Software Engineering. Microsoft Research / University of Washington Summer Institute, August 12, 2007. (Keynote address).

69. Herbsleb, J. (2007). Global Software Engineering: The Future of Socio-technical Coordination, in *Future of Software Engineering 2007*, L. Briand and A. Wolf, Editors. 2007, IEEE-CS Press. (Invited presentation, ICSE 2007.)

70. Herbsleb, J. (2007). Open Source Ecologies. IBM Toronto, Academy of Technology Open Source Conference, February 27, 2007. (Keynote address).

71. Herbsleb, J. (2007). Aligning Coordination Behavior with Coordination Needs: Congruence in Software Development. IBM TJ Watson Research, February 13, 2007. (Invited presentation).

72. Herbsleb, J. (2007). Coordination in Engineering: Computing Task Dependencies from Work Artifacts. Boeing Phantom Works, January 9, 2007. (Invited presentation.)

73. Herbsleb, J. (2006). Coordination in GSD: Making the Invisible Visible. *International Conference on Global Software Engineering*, Florianopolis, Brazil, Oct. 16. (Keynote address)

74. Herbsleb, J. (2006). From Software Engineering to Software as Service: Computing Task Dependencies from Work Artifacts. Microsoft Research Laboratory, August 11, 2006. (Invited presentation.)

75. Herbsleb, J. (2006). Dependencies and awareness in unstable environments. Stanford University, March 22, 2006. (Invited presentation.)

76. Herbsleb, J. (2006). Overcoming the Challenges of Global Development. *OOP 2006*, Munich, Germany, January 18, 2006. (Invited presentation).

77. Herbsleb, J. (2006). What Every Commercial Developer Should Know about How Open Source Works. *OOP 2006*, Munich, Germany, January 19, 2006. (Invited presentation).

78. Herbsleb, J. (2005). Integrating organizational systems. Keynote, Siemens Technology Day 2005, Salzburg, Austria, 11/7/2005.

79. Herbsleb, J. (2005). Beyond computer science. *International Conference on Software Engineering* (ICSE), pp. 23-27, St. Louis, MO, May 15-21, 2005 (invited presentation).

80. Herbsleb, J. (2004). Why open source works. *Open Source and Free Software: Concepts, Controversies, and Solutions*, May 9-11, University of Toronto, Toronto, Canada. http://osconf.kmdi.utoronto.ca/default.htm (invited presentation.)

81. Herbsleb, J. (2003). Two Cases of Open Source Software Development: Apache and Mozilla. *HBS - MIT Sloan Free/Open Source Software Conference: New Models of Software*

*Development,* June 19-20, Harvard Business School and MIT Sloan School of Business. http://opensource.mit.edu/conference.html (invited presentation.)

82. Herbsleb, J. (2002). Research Priorities in Open Source Software Development. *Advancing the Research Agenda on Free/Open Source Software*, Oct. 14, Brussels, Belgium. Institute of Infonomics, University of Maastricht and Center for Information Policy, University of Maryland. http://www.infonomics.nl/FLOSS/workshop/ (invited presentation.)
83. Herbsleb, J., (with Atkins, D., Handel, M., Mockus, A., Perry, D., Wills, G). Global Software Development: The Bell Labs Collaboratory. In proceedings, *International Conference on Software Engineering* (ICSE 2001) Toronto, Canada, May 15-18, p. 681. (Invited presentation.)

## Selected Other Papers

84. Cataldo, M., Herbsleb, J., & Carley, K. (2008). Socio-Technical Congruence: A Framework for Assessing the Impact of Technical and Work Dependencies on Software Development. Workshop on Socio-Technical Congruence (STC-2008), May 10, Leipzig, Germany.
85. Sarma, A. & Herbsleb, J.D. (2008). Using development experience to calculate congruence. Workshop on Socio-Technical Congruence (STC-2008), May 10, Leipzig, Germany.
86. Sarma, A., Herbsleb, J., & van der Hoek, A. (2008). Challenges in Measuring, Understanding, and Achieving Social-Technical Congruence. Workshop on Socio-Technical Congruence (STC-2008), May 10, Leipzig, Germany.
87. Herbsleb, J., Sarma, A., Mockus, A., & Cataldo, M. (2008). Using Distributed Constraint Satisfaction to Build a Theory of Congruence. Workshop on Socio-Technical Congruence (STC-2008), May 10, Leipzig, Germany.
88. Wagstrom, P. & Herbsleb, J. (2008). Individualized Socio-Technical Congruence. Workshop on Socio-Technical Congruence (STC-2008), May 10, Leipzig, Germany.
89. Herbsleb, J., Weber, R., Cai, Y, & Finholt, T. (2008). Economic Congruence in Open Source Ecologies. Workshop on Socio-Technical Congruence (STC-2008), May 10, Leipzig, Germany.
90. Wagstrom, P. & Herbsleb, J.D. (2006). Dependency forecasting in the distributed agile organization. *Communications of the ACM,* 49 (10), pp. 55-56.
91. Shaw, M., Herbsleb, J.D., Ozkaya, I., & Root, D. (2005). Deciding What to Design: Closing a Gap in Software Engineering Education Invited paper for Education and Training Track of 27th *International Conference on Software Engineering (ICSE 2005)*, May 2005, book chapter to appear.
92. Herbsleb, J.D. & Moitra, D. Global Software Development. IEEE *Software*, March/April 2001. (Special issue, Herbsleb, J.D. & Moitra, D., Eds.)
93. Rocco, E., Finholt, T.A., Hofer, E.C., & Herbsleb, J.D. (2001, April). Out of sight, short of trust Presentation at the Founding *Conference of the European Academy of Management.* Barcelona, Spain.
94. Finholt, T. A., Rocco, E., Bree, D., Jain, N., & Herbsleb, J. D. NotMeeting: A Field Trial of NetMeeting in a Geographically Distributed Organization. *SIGCHI Bulletin*, April 1999.

95. Boyer, D. G., Cortes, M., Herbsleb, J. D., & Handel, Mark J. Virtual Community Presence Awareness. In Proceedings, *CSCW '98 Workshop on Designing Virtual Communities for Work*, Seattle, WA, November 14-18, 1998.

96. Herbsleb, J.D. Hard problems and hard science: On the practical limits of experimentation. (1998). IEEE *TCSE Software Process Newsletter*, No. 11, Winter 1998, 18-21.

97. Herbsleb, J. D. Supporting the emergence of abstractions in software design. (1997). CHI 97 *Workshop on Interactive Systems for Supporting the Emergence of Concepts and Ideas*.

98. Goldenson, D. & Herbsleb, J. (1995). After the appraisal: A systematic survey of process improvement, its benefits, and factors that influence success. Technical Report CMU/SEI-95-TR-009, Carnegie Mellon University.

99. Herbsleb, J., Carleton, A, Rozum, J., Siegel, J., Zubrow, D. (1994). Benefits of CMM-based software process improvement: Initial results. Technical Report CMU/SEI-94-TR-13, Carnegie Mellon University.

100. Herbsleb, J., Zubrow, D., Siegel, J., Rozum, J., Carleton, A. (1994). Software process improvement: State of the Payoff. *American Programmer*, 7, 2-12.

## Funding

1. Bosch Corporate Research. $100,000 (2008).
2. IBM Jazz Faculty grant. $60,000 (total, 2008-2009).
3. Accenture Technology Labs $100,000 (total, 2007-2008).
4. Siemens Software Initiative. $100, 000 (2007).
5. National Science Foundation, IIS-0414698. Coordination, communication, and collaboration in open source software development. $400,000. PI: Herbsleb. Co-PIs: Carley, Kraut, Mockus.
6. National Science Foundation, IIS-0534656. The role of architecture in facilitating design collaboration. $500,000. PI: Herbsleb. Co-PIs: Garlan, Paulish.
7. Siemens Corporate Research, $100,000 (2006).
8. IBM Faculty Award, $40,000 (2005).
9. SEI IR&D. Understanding organizational risk in architectural design. $246,000. With Bass & Klein.
10. Sloan Foundation. Software Industry Center.

## Selected Press Coverage

Open Source Development Models Fall Flat, *Computerworld*, May 12, 2004.
http://www.computerworld.com/printthis/2004/0,4814,93109,00.html

You Can Surf but You Can't Hide, *New York Times*, February 7, 2002.
http://www.nytimes.com/2002/02/07/technology/circuits/07HERE.html?ex=1025680685&ei=1&en=f0e9040e3b056fec

Software Development Goes Global. *Computerworld*, June 26, 2000.
http://www.computerworld.com/cwi/story/0,1199,NAV47_STO46187,00.html

Unit of One: The Road not Taken. *Fast Company*, June 2000.
http://www.fastcompany.com/online/35/one.html

## Dissertation Supervision

**Committee Chair or Co-chair**

Marcelo Cataldo (with Kathleen Carley), Institute for Software Research, SCS, CMU.
Uri Dekel, Institute for Software Research, SCS, CMU.
Peter Landwehr (with Kathleen Carley), Institute for Software Research, SCS, CMU.
Patrick Wagstrom (with Kathleen Carley), Engineering and Public Policy, CMU.

## Professional Activities

Associate Editor, *ACM Transactions on Software Engineering and Methodology*, 2008-present
Editorial Board, *Empirical Software Engineering*, 2006-present
Conference Co-Chair, *Computer-Supported Cooperative Work* (CSCW) 2004
Program Committee, *International Conference on Software Engineering*, 2008
Program Committee, *Foundations of Software Engineering* (FSE) 2008
Program Committee, *Foundations of Software Engineering* (FSE) 2006
Program Committee, *Foundations of Software Engineering* (FSE) 2004
Program Committee, *International Conference on Software Engineering* (ICSE) 2003
Program Co-Chair, *Human-Computer Interaction Consortium* (HCIC) 2002.
Guest editor, Special issue of *IEEE Software* on Global Software Development (Mar./Apr. 2001)
Reviewer, ACM Conference on *Computer-Human Interaction* (CHI)
Reviewer, ACM Conference on *Computer-Supported Cooperative Work* (CSCW)
Reviewer, ACM *Transactions on Information Systems* (TOIS)
Reviewer, IEEE *Transactions on Software Engineering*
Reviewer, *Empirical Software Engineering*
Reviewer, *Empirical Studies of Programmers*
Reviewer, *Human-Computer Interaction*
Reviewer, *IBM Systems Journal*
Member, Association for Computing Machinery

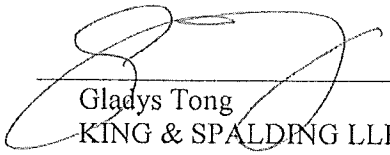
## CERTIFICATE OF SERVICE

I, Gladys Tong, hereby certify that on April 8, 2010, I served the foregoing on the following as noted:

**BY E-MAIL**

Heidi Keefe
Mark Weinstein
Jeffrey Norberg
Cooley Godward Kronish LLP
Five Palo Alto Square
3000 El Camino Real
Palo Alto, California 94306-2155
Tel: (650) 213-0300
Fax: (650) 213-8158

E-Mail: hkeefe@cooley.com
E-Mail: mweinstein@cooley.com
E-mail : jnorberg@cooley.com



Gladys Tong
KING & SPALDING LLP
333 Twin Dolphin Drive
Suite 400
Redwood Shores, CA 94065
(650) 590-0700

**IN THE UNITED STATES DISTRICT COURT**
**FOR THE DISTRICT OF DELAWARE**

| | | |
|---|---|---|
| LEADER TECHNOLOGIES, INC., a Delaware corporation,<br><br>Plaintiff-Counterdefendant,<br><br>v.<br><br>FACEBOOK, INC., a Delaware corporation,<br><br>Defendant-Counterclaimant. | ) | Civil Action No. 1:08-cv-08-862-JJF<br><br>**DISCLOSURE OF EXPERT TESTIMONY FOR JAMES HERBSLEB, PH.D. PURSUANT TO FED. R. CIV. P. 26(A)(2)** |

**HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY**

Plaintiff Leader Technologies, Inc. ("Leader") submits the following disclosure of expert testimony for James Herbsleb, Ph.D. pursuant to Federal Rules of Civil Procedure 26(a)(2). This expert is engaged in ongoing refinement of his opinions and expected testimony, and Leader specifically reserves the right to modify or supplement the information contained in this disclosure pursuant to the Federal Rules of Civil Procedure.

I, James Herbsleb, Ph.D., submit the following expert report on behalf of Leader. All opinions and facts stated herein are true and correct to the best of my knowledge. I reserve the right to modify or supplement this disclosure if more information is made available to me.

1. I am a Professor of Computer Science and Director of the Software Industry Center at Carnegie Mellon University.

2. In 1991, I received a M.S. in Computer Science from the University of Michigan. I also have a Ph.D. in Cognitive Social Psychology (1984) and J.D. (1980) from the University of Nebraska.

3. My research focuses on collaborative technologies and practices for global software development. I served as PI on two completed and one ongoing NSF-funded project investigating various aspects of collaborative software engineering. My research interests are in geographically-distributed software engineering, open source software development, collaboration over distance, and tools and technologies that support coordination.

4. I have authored more than 70 publications, including journal publications.

5. The details about my work experience and education are summarized in my curriculum vitae ("CV") attached hereto as Exhibit A, which also contains a list of publications I authored within the last 10 years.

6. I am being compensated for my time as an expert witness for Leader in this litigation at a rate of $300 an hour, or $2,500 per day, and $400 an hour for deposition and testimony at trial. The compensation that I receive is not dependent in any way on the outcome of the litigation.

7. In the past four years I have not testified at trial or at deposition.

8. A list of documents I reviewed in preparation for this report is attached to this report as Exhibit B and Exhibit C. As shown, I have reviewed Dr. Greenberg's and Mr. Hughes' report, including all exhibits attached thereto. I intend to rely upon, and discuss, all material listed in Exhibit B and Exhibit C, including the opinions of Dr. Greenberg and Mr. Hughes and all exhibits attached to their reports, at trial, to the extent they are allowed to testify.

9. My opinion, contained in this report, is based on my education, professional career, and work experience, as well as the materials and deposition transcripts that I have reviewed which are listed in Exhibit B and Exhibit C.

10. For the purposes of this report I am using the following definitions for terms in the claims of United States Patent No. 7,139,761 ("the '761 Patent"), as provided by the Court in this litigation:

| Term | Definition |
|---|---|
| context | environment |
| component | a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution |
| many-to-many functionality | two or more users able to access two or more data files |
| dynamically | automatically and in response to the preceding event |

For all other terms, I am applying the plain and ordinary meaning as commonly understood by one of skill in the art.

11. For the purposes of this report I considered a person of skill in the art to be someone with a bachelor's degree or higher in computer science and/or several years of experience in the computer industry.

12. I have been informed that a United States patent is presumed valid. This is because an issued patent has already undergone scrutiny from the United States Patent and Trademark Office ("USPTO"). I further understand that because a patent is presumed valid, the evidentiary burden to invalidate a patent requires clear and convincing evidence.

13. I have been informed that a claimed invention is invalid if it is anticipated. A claimed invention is anticipated if each and every element of the claimed invention is disclosed in a single reference. Therefore, a claim is not anticipated if at least one element of the claim is not disclosed in a single reference.

14. I have been informed that a claimed invention is also invalid if it is obvious. A claimed invention is obvious if a single reference or two or more references combined together disclose all of the elements if the claimed invention. Obviousness is determined by looking at the claimed subject matter as a whole through the eyes of one of ordinary skill in the art at the time the claimed invention was made. Therefore, a claim is not obvious if the references do not disclose at least one element of the claim. Further, a claim is not obvious if there exists no suggestion or motivation to combine the references.

15. I have been informed that a proper prior art reference must be an enabling disclosure. Specifically, a reference must enable one of ordinary skill in the art to make the invention without undue experimentation.

16. Moreover, I have been informed that if a United States patent is used as an alleged prior art reference, it must have been filed before the conception date of the '761 Patent or must

have been published 1 year before the earliest effective filing date. If any other type of reference is used as an alleged prior art reference, it must have been published 1 year before the earliest effective date.[1]

17. I have been informed that if an independent claim is found valid, every claim which depends from the independent claim is also valid.

18. I have been informed that under 35 U.S.C. § 119(e)(1), an application for a patent may rely upon the priority date of a provisional application if the patent application and provisional have the same inventors, the application specifically references the provisional application, the application is filed within 12 months of the provisional application, and the provisional application meets the requirements of the first paragraph of 35 U.S.C. § 112, which states:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

19. I understand that a patent is presumed to be entitled to the filing date of its provisional application, especially if this date is used by the USPTO during the prosecution of the patent. I further understand that clear and convincing evidence is required in order to overcome this presumption.

20. I have been informed that secondary considerations are relevant to the determination of whether a product or process was obvious at the time of invention to one of ordinary skill in the art. Secondary considerations include the invention's commercial success,

[1] I have been informed there are other situations in which references may be used as prior art. However, based on the references provided by Dr. Greenberg in his report, these are the only relevant rules regarding alleged prior art.

commercial acquiescence (licensing), a long felt but unresolved need, the failure of others, skepticism by experts, praise by others, teaching away by others, recognition of a problem, laudatory statements by the infringer, and copying of the invention by competitors.

21. In my report, I only address the opinions set forth by Dr. Saul Greenberg in his report. If Dr. Greenberg is allowed to supplement his report or testify regarding any matter which is not provided in his report, I reserve the right to address Dr. Greenberg's newly formed opinions once they are made known to me.

22. In my report, I also address the opinions set forth by Mr. James Hughes in his report. If Mr. Hughes is allowed to supplement his report or testify regarding any matter which is not provided in his report, I reserve the right to address Mr. Hughes' newly formed opinions once they are made known to me.

23. In order to aid the Court and jury in understanding my opinion regarding the validity of the '761 Patent, I intend to create demonstrative exhibits for trial. These demonstrative exhibits will include graphical and non-graphical illustrations (such as charts, tables, etc.) of the technology covered by the claims of the '761 Patent (including the file history and provisional application), the references cited by Dr. Greenberg and Mr. Hughes, background of the alleged prior art, and other material which illustrate my opinions

24. I intend to address all of Dr. Greenberg's relevant testimony at trial. To the extent Mr. Hughes is permitted to testify, I also intend to address all of Mr. Hughes' relevant testimony at trial as well. For example, I intend to address Dr. Greenberg's (and Mr. Hughes') testimony regarding any of the opinions provided in his report, including any testimony he gives regarding the subject matter of the '761 Patent, any terminology, the skill of one in the art, the priority date

of the '761 Patent, his analysis regarding the validity of the '761 Patent, and an opinions set forth in my report herein.

25. Dr. Greenberg notes in a footnote that his analysis does not necessarily indicate every single place within a particular prior art reference where a particular claim limitation may be located. For purposes of my report, I have only addressed the opinions provided by Dr. Greenberg in his report, including the citations that he discloses. To the extent that Dr. Greenberg is allowed to testify regarding other citations which are not in his report, I reserve the right to address his newly formed opinions and citations. This same principal applies to Mr. Hughes to the extent he is allowed to testify. In any case, the citations provided in my report are also only exemplary, and do not necessarily indicate every single citation that supports my opinion. To that extent, I reserve the right to rely on any portion of any of the asserted references (defined below), or any portion of the material listed in Exhibit B and Exhibit C, at trial.

26. I have been informed that Facebook is accused of infringing Claims 1, 4, 7, 9, 11, 16, 21, 23, 25, 31 and 32 of the '761 Patent (the "asserted claims").

27. In Dr. Greenberg's report, he splits the asserted claims up into arbitrary elements which are not consistent with the claims as written. To the extent possible, I have addressed Dr. Greenberg's analysis using the correct breakdown of elements, which are provided as separate paragraphs in the claims, rather than the arbitrary breakdown of elements used by Dr. Greenberg.

28. In Dr. Greenberg's report, he mentions United States Patent No. 6,370,538 to Lamping ("the '538 Patent), United States Patent No. 6,308,179 to Petersen ("the '179 Patent"), iManage DeskSite 6.0 User Reference Manual ("the iManage manual"), a paper entitled "A Context File System for Ubiquitous Computing Environments by Christopher Hess ("the Hess

paper"), United States Patent 6,430,575 to Paul Dourish ("the '575 Patent"), European Patent Application No. EP1087306 to Hubert ("the '306 Patent"), United States Patent No. 7,590,934 ("the '934 Patent"), United States Patent No. 6,236,994 to Swartz ("the '994 Patent"), United States Patent No. 6,941,313 to Seliger ("the '313 Patent"), United States Patent No. 7,346,648 to Seliger ("the '648 Patent"), United States Patent No. 6,434,403 to Ausems ("the '403 Patent"), and various pages from the Microsoft Computer Dictionary (collectively "the asserted references"). To the extent Dr. Greenberg has provided an opinion that the asserted references invalidate the '761 Patent, I disagree with his opinion. It is my opinion, for the reasons set forth herein, that the '761 Patent is valid in light of the asserted references.

## SUMMARY OF THE '761 PATENT

29. The '761 Patent discloses an online collaboration tool that can be employed by collaboration systems to create linked personal and shared workspaces or environments. A user has access to a suite of applications within an environment, allowing the users to access, manipulate, and store data. These environments can be linked together into larger structures to form an online collaboration tool. Users can move among environments on the system and the tool keeps track of their movements. Data created by a user is associated with that user and with the environment in which the data was created. If a user moves from one environment to another, the user can continue to access data created in the first environment, and possibly access additional data available in the second environment. Environments can be shared among users. All data associated with a shared environment is available to all users who access that environment. Actions of users in the shared environment can be seen by other users in that environment. Shared environments provide a flexible mechanism for defining workflows. The online collaboration tool disclosed in the '761 patent is extremely effective at supporting

collaboration because the workspaces bring together a suite of tools for a particular type of work, and the data for that work is associated with the tools and with the users who created it. Users have everything they need as soon as they enter the workspace, and shared workspaces bring together the right set of users for a task. The tool supports and tracks users as they move from one workspace to another.

## CONCEPTION DATE OF THE '761 PATENT

30. It is my understanding that the American patent system is a first-to-invent system, where an inventor is entitled to use the date that he or she conceived of an invention. Under this system, an inventor is considered to have conceived an invention when he or she has a permanent idea of a complete and operative invention, even if the invention has not actually been made. I have been informed that corroborating evidence of conception of the invention is required for an inventor to rely on a conception date.

31. It is my understanding that the inventors of the '761 Patent claim that they conceived of the invention of the '761 Patent by no later than August 19, 1999. An example of corroborating evidence that I have reviewed is the document titled "LEADER Project Functional Specification" and corresponding email dated August 19, 1999 (LTI_012960-88). After reviewing these documents, it is my opinion that these documents corroborate that the inventors of the '761 Patent had a permanent idea of the complete and operative invention by August 19, 1999.

32. Dr. Greenberg has not challenged the conception date of the '761 Patent. This confirms my opinion that the appropriate conception date of the '761 Patent is August 19, 1999.

## PRIORITY DATE OF THE '761 PATENT

33. In my opinion, the priority date of the '761 Patent is the filing date of the provisional application, December 11, 2002, because the Provisional Application and '761 Patent Application meet all of the requirements for claiming priority to the filing date of the Provisional Application.

34. The Provisional Application and the '761 Patent Application both identify Jeff R. Lamb and Michael T. McKibben as inventors. The cover page of the '761 Patent contains, under the heading "Related U.S. Application Data" an explicit reference to the Provisional Application.

35. The cover page for the Provisional Application states that it was filed on December 11, 2002. The cover page for the '761 Application states that it was filed on December 10, 2003, less that one year before the filing date of the Provisional Application.

36. My understanding is that the United States Patent and Trademark Office considered the December 11, 2002 filing date of the Provisional Application to be the effective filing date of the '761 Application because it is provided on the cover page of the Provisional Application. My opinion is confirmed with the prosecution history in which the Patent Examiner referenced the filing date of the Provisional Application in a June 3, 2005 Office Action. *See* June 3, 2005 Office Action at 2. In addition, all of the references that were cited by the Examiner were either filed or published before the filing date of the Provisional Application. Thus, the actions of the United States Patent Office, and the prior art cited by the Examiner, is consistent with my opinion that the effective filing date of the '761 Patent is December 11, 2002.

37. In addition, I had a post-doc student in my lab look at the provisional application to determine whether it was possible to make and use a program which would meet the elements of the asserted claims. The post-doc student qualifies as one of skill in the art at the time of the

invention. In approximately 10 hours, he was able to write the code provided as Exhibit C. This code demonstrates that the provisional application enables one of skill in the art to make and use the claimed invention.

38. I saw a live demonstration of an actual program which was built based on the provisional application. During the demonstration, I was able to see the inner working of the product by various "PRINT" commands which were provided in the code. This demonstration also confirmed that one of skill in the art was able to make and use the claimed invention based on the provisional application.

39. Furthermore, in my opinion the Provisional Application contains a sufficient description, in both the numbered paragraphs of the Provisional Application and in the pseudo code attached to it, of each of the asserted claims of the '761 Patent such that one of ordinary skill in the art of computer science could implement the claimed functionality without undue experimentation. It is my opinion that both the provisional application and the '761 Patent contain sufficient disclosure to indicate that the inventors were in possession of the invention. I considered the disclosure as a whole, any citations below are merely exemplary in nature.

40. Dr. Greenberg argues that the Provisional Application has not adequately disclosed "tracking user movement from a first to second context/user environment/workspace, and updating and/or changing metadata associated with the data in response to that movement/access." Greenberg Expert Report, ¶¶76-77. After reviewing of the Provisional Application, it is my opinion that the claim elements referenced in paragraph 76 of Dr. Greenberg's report related to tracking user movements and updating data are disclosed by the Provisional Application. Dr. Greenberg seems to have relied on the fact that some language in the '761 Patent was not included verbatim in the Provisional Application. However, the

Provisional Application includes a comprehensive disclosure which adequately discloses these elements, both through descriptions in the operation of the system and exemplary pseudo code.

41. The Provisional Application states that a goal of the invention is to "provide a communication tool that automatically stores contextual information relating to an item of communication and utilizes that context[] in performance of communication tasks." Provisional Application at 4. The Provision Application further elaborates on the concept of a context, stating:

> **Context** - prior art communications tools do not know the business and/or personal context(s) within which files are created and used. For example, a person may create three files in a word processor, one relating to sales, the second relating to operations and the third relating to his son's football team. However, the word processor itself has no way of knowing to automatically store those three files in at least three different places. Provisional Application at 2.

42. The Provisional Application describes the tracking of the users between contexts when it states that "[a]s users create and change their contexts, the files and applications automatically follow, dynamically capturing those shifts in context." Provisional Application at 5. The Provisional Application further describes the capturing of information related to content, stating that "[c]ontent is preferably associated with a routing algorithm referred to herein as a webslice. . . the content has an intelligent quality whereby upon a change of structure of the web, the content knows which board or boards it should be on both before and after the change in structure." Provisional Application at 6. The Provisional Application further provides that "the loc[a]tion of content may be determined by detecting changes in structure, detecting the temporary location of the content on the boards in the routing algorithm before and after the change and adjusting the location of the affected content as part of the change in structure." Provisional Application at 7.

43. This description is supplemented by the pseudo code included in the Provisional Application. The beginning of the pseudo code includes a number of "import" statements that are instructions to include additional source code referenced in each "import" statement. Provisional Application at 10. Several of these "import" statements, including "import com.leader.persist.*;" "import com.leader.persist.vbsf*;" and "import com.leader.osapplication.sessionstate.*" indicate that the pseudo code is intended to load other source code that facilitates the tracking of a user from one environment to a second environment. *Id.* For example, the "import com.leader.osapplication.sessionstate.*;" statement indicates that the code maintains track of a users "session state." Provisional Application at 10. Information related to the user's session and the state of that session in one example of a method of tracking a user's interaction with the system. The "WebRelationships" method is a code-based example of combining stored metadata with the tracked location of the user in order to update the metadata associated with user created content on the system. Provisional Application at 15. Again, as noted above, the "VSBF" comment tag denotes samples of used to write metadata relating to a user's tracked state to underlying database. *Id.* Furthermore, "action.addActionListener (RemoveWebRelationshipActionListener.GLOBAL);" is used to track the movement of a user through his interactions with the system. Provisional Application at 6, line 30. These elements from the Provisional Application adequately disclose tracking a user's movement as disclosed in the claims of the '761 Patent.

44. Dr. Greenberg has also argued that the Provisional Application has not adequately disclosed "creation and storage of 'metadata.'" After a review of the Provisional Application, it is my opinion that the claim elements referenced in paragraph 79 of Dr. Greenberg's report related to the creation and storage of data and metadata is adequately disclosed in the Provisional

Application. The Provisional Application includes a comprehensive disclosure which adequately discloses these elements, both through descriptions in the operation of the system and pseudo code.

45. Dr. Greenberg is incorrect in his statement that the Provisional Application teaches away from the use of metadata as in the system claimed in the '761 Patent. Greenberg Expert Report, ¶80. The section referred by Dr. Greenberg merely states that manual metadata tagging which "involve[s] having a knowledge officer view files after they have been stored and create meta-data tags with additional key words" is limited because "no information is contained within the file about the user and context and circumstances of the user at the time the filed was created." Provisional Application at 3. The cited section clearly discloses the concept that metadata can be used to store information related to data in a system where these limitations related to manual tagging of data were addressed. Furthermore, it is perplexing how this could be considered to teach away from the use of metadata as in the '761 Patent, as the '761 Patent includes an almost identical copy of the statement relied on. '761 Patent, Col. 2, ll. 50-59.

46. The numbered paragraphs of the Provisional Application and the attached pseudo code adequately describe the "dynamic association" and storage of metadata and data. The Provisional Application states, in a section titled "Description of the Embodiments", that "[a]s users create and change their contexts, the files and applications automatically follow, dynamically capturing those shifts in context." Provisional Application at 5. This passage shows that the Provisional Application describes a process of dynamically associating metadata. The Provisional Application states "[a]lternatively, the loc[a]tion of content may be determined by detecting changes in structure, detecting the temporary location of the content on the boards in the routing algorithm before and after the change and adjusting the location of the affected

content as part of the change in structure." Provisional Application at 7. This further demonstrates the dynamic association of metadata with data.

47. The pseudo code attached to the Provisional Application describes a system where a user can create data within a user environment/context. The "createRelationshipsSubForm" function includes calls that request and associate user created data. Provisional Application at 15. The portions of the pseudo code labeled with the "VSBF" comment tag are examples of code used as an interface between the code listed in the Provisional Application and a database that is used to store the user-created files and documents. *Id.* These "VSBF" statements show examples of storing and retrieving the metadata. These portions of the pseudo code attached to the Provisional Application would be used to store user-created data for long-term storage.

48. Furthermore, the pseudo code attached to the Provisional Application describes "dynamic association" and storage. The beginning of the pseudo code includes a number of "import" statements that are instructions to include additional source code referenced in each "import" statement. Provisional Application at 10. Several of these "import" statements, including "import com.leader.persist.*;" "import com.leader.persist.vbsf*;" and "import com.leader.osapplication.sessionstate.*" indicate that the pseudo code is intended to load other source code that facilitates the capture and storage of context information. *Id.* The "createRelationshipsSubForm" function includes calls that request metadata related to the user and to user created data. Provisional Application at 15. This portion of the pseudo code is an example of the types of metadata reads and writes needed to implement dynamic association and storage in metadata.

**Dependent Claims**

49. I disagree with Dr. Greenberg's statement that the Provisional Application does not disclose Claims 4 because it does not disclose "a relationship between the user and at least one of an application, application data and user environment." The Provisional Application discloses this, stating that "this invention relates to new structures and methods for creating relationships between users, applications, files and folders." Provisional Application at 1. The "'Web Version 1' Working Description" portion of the Provisional Application describes one method for organizing context information as a relationship between a user and the user environment, application, and application data. Provisional Application at 8-10. In particular, the "CIAP Implementation" example in this section of the Provisional Application describes a number of users in terms of the relationships between the Applications, Files, and Folders associated with those users. *Id.* at 9. Moreover, the Provisional Application clearly states "the People, Webs, and Boards become the automatic context for Applications, Files, and Folders." *Id.* at 10. The inclusion of context information defining the relationships between the user and the user's applications, application data, and user environment allows for "the instantaneous reorganization of people and topic associations along with the communications tools." *Id.*

**Claim 7**

50. I disagree with Dr. Greenberg's statement that the Provisional Application does not disclose Claim 7. Dr. Greenberg provides no specific analysis for Claim 7, and has not provided any proof that Claim 7 is not adequately disclosed. In my opinion, the Provisional Application adequately disclosed Claim 7, which describes the association of data created in one context with data created in a second context. For example, the Provisional Application states that one object of the invention is to "automatically store[] contextual information relating to an

item of communication," to "integrate[] two or more different communication applications," and to provide a structure for defining relationships between complex collections of data." Provisional Application at 4. The Provisional Application also states "[a]lternatively, the loc[a]tion of content may be determined by detecting changes in structure, detecting the temporary location of the content on the boards in the routing algorithm before and after the change and adjusting the location of the affected content as part of the change in structure." Provisional Application at 7.

**Claim 11**

51. I disagree with Dr. Greenberg's statement that the Provisional Application does not disclose Claim 11 because it does not disclose the concept of users moving and accessing information from more than one user environment. However, as discussed above, the Provisional Application states "[a]s users create and change their contexts, the files and applications automatically follow, dynamically capturing those shifts in context." Provisional Application at 5. Further, it states that "[c]ontent is preferably associated with a routing algorithm referred to herein as a webslice. . . the content has an intelligent quality whereby upon a change of structure of the web, the content knows which board or boards it should be on both before and after the change in structure." Provisional Application at 6.

**Claim 16**

52. Dr. Greenberg has taken the position that "accessing the user environment via a portable wireless device" would "likely have happened with no thought as a consequence of everyday computer use." *See* Greenberg Expert Report, Ex. C-3 at 17. I find this statement to be inconsistent with regard to Claim 16, which he said was not supported by the Provisional

Application. Greenberg Expert Report, ¶84. Therefore, I do not believe that Dr. Greenberg has provided evidence to show that Claim 16 is not entitled to the priority date.

**Claim 25**

53. I disagree with Dr. Greenberg's statement that the Provisional Application does not disclose Claim 25 because it does not disclose the concept of a context component that captures data associated with multiple workspaces. The Provisional Application states "[a]s users create and change their contexts, the files and applications automatically follow, dynamically capturing those shifts in context." Provisional Application at 5. Further, it states that "[c]ontent is preferably associated with a routing algorithm referred to herein as a webslice...the content has an intelligent quality whereby upon a change of structure of the web, the content knows which board or boards it should be on both before and after the change in structure." Provisional Application at 6.

**Claim 31**

54. I disagree with Dr. Greenberg's statement that the Provisional Application does not disclose "the data and the metadata" or "storage using a relational or object storage methodology" as in Claim 31. The portions of the pseudo code labeled with the "VSBF" comment tag, as noted above, indicate the writing of user data and metadata to a relational database. The storing step recited in Claim 31 will be an automatic function of the database operation.

**Claim 32**

55. I disagree with Dr. Greenberg's statement that the Provisional Application does not disclose facilitating "many-to-many functionality" as in Claim 32. The Provisional Application provides that "this invention relates to new structures and methods for creating

relationships between users, application, files and folders." Provisional Application at 1. Further, the Provisional Application describes an example system which facilitates the collaboration of multiple people managing multiple data files. Provisional Application at 6.

## CUMULATIVE REFERENCES

56. In my opinion, the prior art references discussed below and cited by Dr. Greenberg are cumulative of the art considered by the Examiner during the prosecution of the '761 Patent. For this reason, the '761 Patent is valid in light of the prior art discussed below. Notably, Dr. Greenberg did not perform any analysis regarding whether the prior art that he cited was cumulative or not.

57. Dr. Greenberg heavily relies on document management systems in his report. The '179 Patent, the '538 Patent, the '575 Patent, and the iManage manual are all premised on the typical document management system. Yet, document management systems were already considered by the Patent Examiner of the '761 Patent. For example, the examiner cited the reference U.S. Patent Application Pub. No. US 2003/0217096 A1 ("McKelvie") during the prosecution of the '761 Patent. McKelvie discloses a system that "can represent the state of a collaborative document such as...document revision...etc." This system also provides the "application logic that controls editorship and revision mechanisms for the document...." *See* McKelvie at 46, ¶0411. This type of system is characteristically understood as a document management system.

58. References utilizing document management systems are cumulative art because they employ the same conventional methods of managing information that was previously disclosed and distinguished in the "Background of the Invention" of the '761 Patent. First such systems use a tagging approach which requires the user to view the files after they have been

stored. Then the user creates or selects tags with additional information to provide information pertaining to the document. *See* '761 Patent, Col. 2, ll. 55-59. Another conventional method employed by document management systems are folder structures which necessitate the user to manually perform the work of organization and categorization. *See* '761 Patent, Col. 1, ll. 54-64. As demonstrated below all of Greenberg's document management system references use these conventional methods. These references are cumulative and presents the same information that the USPTO already considered.

**The '179 Patent**

59. The '179 Patent is cumulative art because this patent merely discloses art that was already before the USPTO. Greenberg's own citations demonstrate the invention disclosed in the '179 Patent is dependent on a document management system. For example, Greenberg quotes, "The user is provided access to properties by use of a document management system of the computer system." Greenberg Expert Report, Ex. C-1 at 4. As use of a document management system was already presented and considered by the USPTO, the '179 Patent is a cumulative reference.

60. Furthermore, the '179 Patent merely uses the same tagging approach discussed in the "Background of the Invention" of the '761 Patent. '761 Patent, Col. 2, ll. 55-59. Again Greenberg's own citations demonstrate the invention disclosed in the '179 Patent merely performs the cumulative art of tagging. Namely, "[t]he user attaches selected properties to a document." *See* Greenberg Expert Report, Ex. C-1 at 4. "Properties are tags that can be placed on documents...." *See id.* As this approach was already presented before and considered by the USPTO, the '179 Patent is a cumulative reference.

61. The '179 Patent was classified by the Patent Office as 707/102; 707/2; 707/4; 707/6; 707/8; 707/10; and 707/104. All of these specific classifications were searched by the Patent Examiner during the prosecution of the '761 Patent. *See* '761 Patent at Cover, Field of Classification Search.

**The '538 Patent**

62. The '538 Patent is cumulative because this patent merely discloses art that was already considered by the USPTO. Greenberg's own citations show the invention disclosed in the '538 Patent is directed to a document management system. For example, Greenberg quotes, "The present invention is directed to a document management system." Greenberg Expert Report, Ex. C-1 at 4. As inventions directed to a document management system were already presented and considered by the USPTO, the '538 Patent is a cumulative reference.

63. Furthermore, the '538 Patent merely provides a user interface for tagging by direct manipulation, and for arranging existing documents, which were previously tagged with properties by a user using the same tagging approach discussed above. While a user is allowed to drag a document from one containment structure to another which may change the properties of the document, this is simply another mechanism for manually applying tags via direct manipulation because the user must drag the document into the appropriate container to change the properties. For example, the '538 Patent states, "the present invention is directed to a user interface which allows flexibility of arrangements while also providing a meaningful organization of documents *based on the existing properties*." *See* '538 Patent, Col. 2. ll. 6-9 (emphasis added). As such, the '538 Patent is a cumulative reference.

64. It is noteworthy the '538 Patent was classified by the USPTO as 707/102 which was precisely one of the specific classes of prior art that the Patent Examiner of the '761 Patent indicated was already searched. *See* '761 Patent at Cover, Field of Classification Search.

**The '575 Patent**

65. The '575 Patent is cumulative because this patent merely discloses art that was already before the USPTO. Greenberg's own citations show the invention disclosed in the '575 Patent is directed to a document management system. For example, Greenberg quotes, "[t]he present invention relates generally to a collaborative document management system...." *See* Greenberg Expert Report, Ex. C-3 at 1. As references directed to a document management system were already presented and considered by the USPTO, the '575 Patent is a cumulative reference.

66. Furthermore, the '575 Patent merely discloses a system where users can organize and categorize the documents rather than the system doing that work. For example, in the summary section of the patent it states, "[t]he present invention allows users to customize a shared filing structure that is used to categorize a shared collection of documents." *See* '575 Patent, Col. 9, ll. 36-38. Thus,"[u]sers customize the filing structure to express how they want the shared collection of documents to be categorized." *See* '575 Patent, Col. 9, ll. 39-41.

67. Greenberg's own citations show the user performs the steps of creating the customized filing structure and categories. For example, "[t]he category manager 122 receives commands from the application program interface 110 operated by the user. The program interface provides buttons from creating and managing customization to the core filing structure 118...In section 306 in the program interfaces 300 shown in FIGS. 3 and 4, a user may create or delete a selected customized filing structure with command buttons 308 and 309, respectively.

In section 310, a user can add, delete, rename, or move categories defined for a selected filing structure with command buttons, 311, 312, 313, and 314, respectively." *See* Greenberg Expert Report, Ex. C-3 at 6. This type of info is the same art that was before and considered by the USPTO and is a cumulative reference.

68. The '575 Patent is classified is in the same class and subclass of prior art that was already searched by the Patent Examiner for the '761 Patent. Specifically, the '575 Patent's classification included 707/3 and 707/10. Both of these classifications were listed as classes and subclasses of prior art that the Patent Examiner of the '761 Patent searched.

**iManage manual**

69. The iManage manual is cumulative prior art because this reference merely discloses art that was already before and considered by the USPTO. Greenberg states that "iManage is a document management system (DMS that manages and organizes data (documents)." *See* Greenberg Expert Report, Ex. C-2 at 1. As document management systems were already presented and considered by the USPTO, the iManage manual is a cumulative reference.

70. Furthermore, the iManage manual merely uses the same tagging approach discussed in the "Background of the Invention" of the '761 Patent. '761 Patent, Col. 2, ll. 55-59. Again Greenberg's citations show that the iManage manual merely performs the cumulative art of tagging. In instructing the users how to enter information about a document, the manual states "[w]henever *you* create a new document, a new version of a document, or a copy of a document, iManage DeskSite prompts *you* to enter profile information for that document...The dialog boxes used to enter profile information for a new document, new versions of documents, and copies of

documents are all customizable by your database administrator." *See* Greenberg Expert Report, Ex. C-2 at 4.

71. Moreover, Greenberg's own figures demonstrate that the iManage manual describes the same folder structure previously discussed in the "Background of the Invention" of the '761 Patent. *See* Greenberg Expert Report, Ex. C-2 at 6, "Tree Frame" in Figure 2.1. The iManage manual explains that it is the users who create these folders, "which are static groups of documents you can create or share with other users. Folders provide a method for organizing and sharing documents easily." *See* "Folders and Sub-folders" iManage manual at 25. Furthermore it is the user who decides how to categorize the documents by adding them into these folders. *See* "Adding Documents to a Folder" iManage manual at 29. This method of categorization is strikingly similar to the prior art system disclosed in U.S. Patent No. 6,622,147 ("Smiga") which states, "[i]n many prior art systems, the user is required to spend time navigating around a user interface to link information to the desired lists or categories to which it pertains." *See* Smiga, Col. 1, ll. 47-50.

72. As iManage manual is dependent on conventional methods that were previously disclosed to and reviewed by the USPTO, the iManage manual is a cumulative reference.

**FUNDAMTENTAL DIFFERENCES BETWEEN CITED ART AND '761 PATENT**

73. In his report, Dr. Greenberg provides certain characterizations of the '761 Patent. I disagree with these characterizations as noted above in my description of the '761 Patent, and as set forth herein.

74. Dr. Greenberg also provides certain characterizations of the background of the art and his own experience in the field (including certain publications). Notably, he does not use any of this information in his analysis of the validity of the '761 Patent. Nonetheless, I disagree

with his characterizations to the extent he is referring to the technology claimed in the '761 Patent.

75. Furthermore, Dr. Greenberg relies on certain pages from the Microsoft Computer Dictionary in his characterizations of the background of the art and elsewhere in his report. It does not seem appropriate for Dr. Greenberg to be using a dictionary in his analysis, especially since the definitions of the terms have already been construed by the Court. Moreover, a dictionary is not an enabling disclosure and does not qualify as prior art. To the extent Dr. Greenberg uses the Microsoft Computer Dictionary to support his characterizations, I disagree with Dr. Greenberg's opinion as addressed below and provided herein.

76. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of audit trails. Audit trails are created by software that logs events and actions in a system in order to create a record, typically to show that the system has been used in ways that comply with regulations, standards, or accepted practices. An audit does not create workspaces or environments, and it does not track users from one context to another. Moreover, I do not agree that the '994 Patent is a prior art reference that includes an audit trail which meet the limitations of the asserted claims.

77. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of history systems. Dr. Greenberg is correct that history systems share many similarities with audit systems, and that they create a list of the user's actions. As with audit trails, history systems do not create workspaces or environments, and it does not track users from one context to another. Moreover, I do not agree that the '994 Patent nor the iManage manual are prior art references that include history systems which meet the limitations of the asserted claims.

78. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of server-based bookmark managements systems. Such systems store bookmarks on a web server so they can be accessed from any web browser. Bookmarks are not properly considered context, and have no relationship to a particular workspace or environment. A bookmark is merely a URL that a user has chosen to store, which allows any user who can access the bookmark to navigate to the web page identified by the URL. I do not believe bookmarks are relevant to the '761 Patent.

79. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of version control systems. As a document is changed over time, a version control system can be used to store the document before and after each change. Each change creates a new version of the document. The purpose is typically to allow a user to recover from an unwanted change, and go back to an earlier version. For example the "undo" functionality in a word processor allows the user to recover from an undesirable change by going back to the previous version, i.e., the version before the undesired change. As with audit trails and history systems, version control systems do not, however, create workspaces or environments, and it does not track users from one context to another. I do not believe version control systems are relevant to the '761 Patent. Moreover, I do not agree that the '994 Patent nor the iManage manual are prior art references that includes version control systems which meet the limitations of the asserted claims.

80. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of document management systems. As Dr. Greenberg describes, document management systems provide a way for an organization to store and retrieve documents, and such systems often incorporate histories, version control, and audit trails. As I pointed out

above, these three kinds of systems are irrelevant to the '761 Patent. Simply combining all three to create a document management system does not make them relevant. As with the others, a document management system does not create workspaces or environments, and it does not track users from one context to another. Moreover, I do not agree that any of the asserted references are prior art references that include document management systems which meet the limitations of the asserted claims.

81. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of Lifestreams. Lifestreams is a variation on a history system. As with a history system, a time-ordered list of all documents and versions is maintained by the system. In addition, Lifestreams provides a visualization of this list, with the documents arranged on a timeline that fades into the distance as document age increases. Lifestreams also allows the user to select a subset of the documents, and to "replay" the stream. Lifestreams does not create a workspaces or environments, and it does not track users from one context to another. Moreover, I do not agree that any of the asserted references are prior art references that include Lifestream systems which meet the limitations of the asserted claims.

82. To the extent Dr. Greenberg is referring to the '761 Patent, I disagree with his characterization of Groupware Rooms / Teamrooms. Teamrooms are designed to provide an electronic substitute for a physical room a team uses for collaboration. Teamrooms typically provide ways to store documents, communicate, and view artifacts in the room. Teamrooms do not track users from one context to another, or provide access of data created in one context to a user in a second context. Each room provides a self-contained set of data and applications for use by the team. Moreover, I do not agree that any of the asserted references are prior art

references that include Group Rooms / Teamrooms which meet the limitations of the asserted claims.

## THE '761 PATENT IS NOT ANTICIPATED BY THE PRIOR ART

### Improper Combination of References

83. Dr. Greenberg's analysis of anticipation is flawed from the outset as he improperly combines two references together as a single reference for a number of the references utilized.[2] It is my understanding that invalidity by anticipation requires that the four corners of a single, prior art document describe every element of the claimed invention, such that a person of ordinary skill in the art could practice the invention without undue experimentation. I also understand that mere reference to another application or patent is not sufficient for a proper incorporation by reference. I understand that to incorporate material by reference into a host document, that host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that specific material is found in the various documents. Furthermore, it is my understanding that the determination of whether an allegedly anticipating document describes material to be incorporated by reference with sufficient particularity should be governed by the standard of one of skill in the art. It is my opinion that the documents described below that allegedly incorporate another document by reference do not identify with sufficient particularity the subject matter which should be incorporated by reference. In addition, Dr. Greenberg fails to provide a proper analysis to determine whether any of the references should be combined. Therefore, Dr. Greenberg has not appropriately attempted to incorporate references for any of the asserted references.

[2] The improper combinations include: Lamping '538 and Petersen '179, Seliger '313 and Seliger '648, and Hubert '306 and U.S. Patent No. 7,590,934. Please note that even though Hubert '306 does not incorporate by reference U.S. Patent No. 7,590,934, Dr. Greenberg has improperly asserted that Hubert '306 should encompass U.S. Patent No. 7,590,934.

**The '538 and '179 Patents**

84. I disagree that the '538 Patent and the '179 Patent anticipate the '761 Patent. First, I understand the Dr. Greenberg has based his opinion on a faulty premise. As discussed above, I understand that the '538 Patent and the '179 Patent cannot be considered a single reference because a mere incorporation by reference, without more, is not sufficient to treat the two references as one. Thus, Dr. Greenberg's opinion that the '538 Patent and the '179 Patent anticipate the '761 Patent is wrong because Dr. Greenberg has failed to identify where each and every element of the asserted claims is found in a single reference. Moreover, Dr. Greenberg's reliance on two references is an implicit admission that neither the '538 Patent nor the '179 Patent by themselves discloses each element of the claims. Dr. Greenberg also does not provide a proper obviousness analysis (which is discussed in more detail below). For example, Dr. Greenberg does not specifically identify what should be combined or the reasons for doing so. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

85. I also disagree that the '538 Patent and the '179 Patent invalidate the '761 Patent because the '538 Patent and the '179 Patent are not prior art to the '761 Patent. Specifically, the '538 Patent was filed on November 22, 1999 and did not publish until April 9, 2002. As discussed above, the inventors of the '761 Patent conceived of the invention which resulted in the issuance of the '761 Patent no later than August 19, 1999. Furthermore, as discussed above, the earliest effective filing date of the '761 Patent is December 11, 2002. Because the '538 Patent was not filed before August 19, 1999 and did not publish before December 11, 2001, the '538 is not prior art to the '761 Patent. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

86. In addition, it is my opinion that the '761 Patent is valid in light of the '538 and '179 Patent because Dr. Greenberg fails to provide any specific basis to invalidate a patent. Specifically, Dr. Greenberg's descriptions are extremely general, do not address all of the elements, and are often inaccurate as to the actual disclosure. Moreover, his citations do not support his conclusions. As a consequence, Dr. Greenberg's disclosure has not provided sufficient evidence. Therefore, it is my opinion that Dr. Greenberg has failed to provide sufficient evidence to render the '761 Patent invalid.

87. Moreover, I disagree that the '538 Patent and the '179 Patent invalidate the '761 Patent because the '538 and '179 Patents disclose a document management system. As discussed above, there is a fundamental difference between a document management system and the '761 Patent. Moreover, the USPTO has already considered document management systems during the prosecution of the '761 Patent. Thus, the '538 and '179 Patents are cumulative of the references considered during the prosecution history. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

88. In addition, I disagree that the '538 Patent and the '179 Patent invalidate the '761 Patent because the '538 Patent and the '179 Patent do not disclose each and every element of the asserted claims. With regard to Claim 1, the '538 Patent and the '179 Patent do not disclose a context component nor a tracking component as provided in the '761 Patent.

89. Specifically, Dr. Greenberg's opinion that the '538 and '179 Patents disclose a context component is incorrect for several reasons. First, the concept of a context as claimed in Claim 1 of the '761 Patent is completely absent from the reference. Moreover, the DMS system disclosed in the '538 and '179 Patent does not capture context information associated with user-defined data. Instead, the DMS system of the '538 and '179 Patents requires a user to input a

document properties into the system. For example, even from Dr. Greenberg's own citations, the '538 Patent states that "[t]he present invention pertains to the art of document management systems...where documents are organized and managed in terms of a user level controlled mechanism...These properties are user and document specific in the sense that they are associated with the user which attached the properties..." and "[p]roperties are tags that can be placed on documents...." '179 Patent, Col. 1, ll. 41-51; Col. 9, ll. 55-59. Furthermore, the '179 Patent provides "[t]he user is provided access to properties by use of a document management system of the computer system. The user attaches selected properties to a document." '179 Patent, Col. 6, ll. 64-66.

90. Another of Dr. Greenberg's own citations which illustrates that the '538 Patent teaches away from the '761 patent provides that "the user will alter properties by direct manipulation of the containment structure." '538 Patnet, Col. 6, ll. 7-10 (emphasis added). Again, Dr. Greenberg's citation provides that the system "allows the user to alter properties via direct manipulation." Moreover, the '538 Patent provides that "a direct manipulation interface for visualizing document properties is provided" to the user and "[b]y this link principal n will be able to view (i.e. its document handle) the public properties principal 3 has attached to the reference document." '538 Patent, Col. 2, ll. 12-15 (emphasis added). Furthermore, the '538 Patent provides that "if principal 1 (owner of kernel 18a) creates a base document with content, and stores it within DMS A, and principal 2 (owner of kernel 18b) wishes to use that document and organize it in accordance with its own needs, principal 2 can place properties on Reference Document 20b." '538 Patent, Col. 3, ll. 60-64 (emphasis added).

91. At least these citations indicate that the '538 and '179 Patents do not contain a context component as provided in Claim 1 of the '761 Patent because a user is required to attach

or provide properties to a document rather than being captured by the context component of the system. This is the exact opposite of the teachings of the '761 Patent which solves the problem of having to manually enter information about the documents so that user can collaborate in an effective and efficient manner. '761 Patent, Col. 2, ll. 50-59; Col. 13, ll. 47-54.

92. In addition, Dr. Greenberg fails to show that the '538 Patent or the '179 Patent disclose a context component which dynamically stores user-defined data and metadata on a storage component. First, Dr. Greenberg never identifies where the '538 Patent or '179 Patent discloses dynamically storing, including the preceding event for storage. Moreover, using Dr. Greenberg's own citations, the '538 and '179 Patent teach that the documents are stored outside the system ("[t]he content of the document is stored at a location outside of the document management system." '179 Patent, Col. 7, ll. 1-3; [d]ocument themselves do not live in DMS...the content is actually relayed from some external repository." '179 Patent, Col. 15, ll. 32-39. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

93. Furthermore, the '538 and the '179 Patents do not disclose a tracking component as recited in Claim 1 of the '761 Patent. In his report, Dr. Greenberg fails to point out any disclosure in the '538 and '179 Patents which disclose a tracking component which tracks a change of the user from the first context to a second context. Instead, again using the citations of Dr. Greenberg, the '538 and '179 Patent discloses "a movement mechanism designed to move the representation of the first document, stored in the first containment structure to a location in the second containment structure." '538 Patent, Col. 2, ll. 19-28. The '538 and '179 Patents are completely silent, and therefore do not teach, tracking a change of the user from a first context to a second context. In fact, the teachings of the '538 and '179 Patents illustrate that the user is

irrelevant, as the "movement mechanism" only focuses on the document, not who is moving it. '538 Patent, Col. 7, l. 62 - Col. 8, l. 3. In addition, Dr. Greenberg has not described the limitation of the tracking component requiring the user to accesses the data from the second context. This is because the '538 and '179 Patents do not teach a user accessing a document from a second context, as there is no sense of context as an environment disclosed in the '538 Patent or the '179 Patent. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

**Claim 4**

94. As discussed above, Claim 1 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 4 is dependent on Claim 1, Claim 4 is also valid in light of the '538 Patent and the '179 Patent. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

95. Furthermore, I disagree with Dr. Greenberg's opinion that the '179 Patent discloses the capturing of context information which includes a relationship between the user and at least one of an application, application data, and user environment. As discussed above, the '538 Patent and the '179 Patent teach a DMS system which requires a user to input document properties into the system. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

**Claim 7**

96. As discussed above, Claim 1 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 7 is dependent on Claim 1, Claim 7 is also valid in light of the '538 Patent and the '179 Patent. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

97. Furthermore, I disagree with Dr. Greenberg's opinion that the '538 Patent discloses the association of data created in the first context with data created in the second context. Dr. Greenberg's citations to the '538 Patent discloses a process whereby a user manually moves a document from one project to another project. Greenberg Expert Report, Ex. C-1 at 9-10. This process differs from the method of Claim 7 for at least two important reasons. First, the process disclosed in the '538 Patent requires manual intervention by the user for an association to take place, while the association performed by the method of Claim 7 is performed automatically without user intervention. Second, I disagree with Dr. Greenberg's assertion that the containment structure disclosed in the '538 Patent is a "context" as defined for use in this case. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate Claim 7 of the '761 Patent.

**Claim 9**

98. I disagree with Dr. Greenberg's opinion that the '538 Patent and the '179 Patent invalidate Claim 9 of the '761 Patent. Specifically, I disagree that the '538 Patent and the '179 Patent disclose the computer-executable act of creating data within a user environment of a web-based computer platform via user interaction with the user environment by a user using an application, the data in the form of at least files and documents. The '538 Patent and the '179 Patent teach a DMS system which is found on a local network. The '538 Patent and the '179 Patent do not teach a system which is hosted on the Internet. None of Dr. Greenberg's citations indicate that the DMS system is hosted on the Internet. Instead, the citations provide that web pages may be found on the Internet, and then brought into the DMS. For example, "[t]hese document may be found on...the word wide web" and "a web page found by the principal... [may] be brought into the DMS document space." '538 Patent, Col. 3, ll. 29-36; '179 Patent,

Col. 2, ll. 3-5 (emphasis added). Moreover, none of Dr. Greenberg's citations teach that data is created within a user environment of a web-based computer platform via user interaction with the user environment. Instead, the citations teach that content is created in a different system, and that properties of the document may be brought into the DMS document space. For instance, "[t]he document, for example, may be a document which the principal created, it may be an e-mail sent or received by the principal, a web page found by the principal...or any other form of electronic data...brought into the DMS document space." '538 Patent, Col. 3, ll. 29-36 (emphasis added).

99. In addition, Dr. Greenberg attempts to include by reference the analysis he provided from Claim 1 into his analysis of Claim 9. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 9 because Claim 1 and Claim 9 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

100. With regard to the second element of Claim 9, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1 or duplicates the same analysis and citations from Claim 1. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 9 because Claim 1 and Claim 9 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

101. Again, with regard to the third element of Claim 9, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1 or duplicates the same analysis and citations from Claim 1. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 9 because Claim 1 and Claim 9 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

102. Again, with regard to the fourth element of Claim 9, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1 and Claim 4, or duplicates the same analysis and citations from Claim 1 and Claim 4. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 9 because Claim 1 (and Claim 4) and Claim 9 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

103. Moreover, the citations provided by Dr. Greenberg do not teach that the user employs at least one of the application and data from the second environment. Instead, the '538 Patent and '179 Patent teach that different users provide different properties which results in different access to document. For example, the '179 Patent provides that "[p]roperty sets of different users are managed independently and are therefore not immediately accessible to each other unless explicitly requested" and "[b]y placement of these properties, principal 2 can

retrieve the base document in a manner different that envisioned by principal 1." '179 Patent, Col. 7, ll. 17-19; '538 Patent, Col. 4, ll. 23-25. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

**Claim 11**

104. As discussed above, Claim 11 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 11 is dependent on Claim 9, Claim 11 is also valid in light of the '538 Patent and the '179 Patent. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

105. Furthermore, I disagree with Dr. Greenberg's opinion that the '538 and '179 Patents disclose indexing the content of a user environment such that a plurality of users can access the context from an associated plurality of user environments. Dr. Greenberg's report and the relevant portions of Exhibit C-1 do not discuss at all the concept of an association between a first user environment and the associated plurality of user environments, and this concept is absent from the citations that Dr. Greenberg makes to the '538 and '179 Patents. Greenberg Expert Report at ¶¶44-46; Ex. C-1 at 14-15. In addition, Dr. Greenberg's report cites to no portion of the '538 and '179 Patents that disclose multiple users accessing content from multiple user environments. Greenberg Expert Report, Ex. C-1 at 14. Dr. Greenberg's citation to the '179 Patent only discloses that a document can appear in multiple places in different directory listings, not that the document can be viewed in different user environments. '179 Patent, Col. 13, l. 17. Dr. Greenberg's citation to the '538 Patent likewise discloses that documents can "in essence" appear to be located a variety of different physical computers. '538 Patent, Col. 4, l. 37. Again, this citation fails to disclose users accessing content from multiple user

environments. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate Claim 11 of the '761 Patent.

**Claim 16**

106. As discussed above, Claim 16 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 16 is dependent on Claim 9, Claim 16 is also valid in light of the '538 Patent and the '179 Patent. Dr. Greenberg acknowledges that the '538 Patent and the '179 Patent do not disclose accessing a user environment from a portable wireless device. Greenberg Expert Report, Ex. C-1 at 15-16. As mentioned below, I disagree with Dr. Greenberg's opinion that access from a portable wireless device would have been obvious in December of 2003. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate Claim 16 of the '761 Patent.

**Claim 21**

107. I disagree with Dr. Greenberg's opinion that the '538 Patent and the '179 Patent invalidate Claim 21 of the '761 Patent. Specifically, I disagree that the '538 Patent and the '179 Patent disclose the concept of a web-based computer platform via user interaction with the user environment by a user using an application, the data in the form of at least files and documents. The '538 Patent and the '179 Patent teach a DMS system which is found on a local network. The '538 Patent and the '179 Patent do not teach a system which is hosted on the Internet. In addition, the '538 Patent and the '179 Patent do not disclose the actions of creating data related to user interaction with an application and dynamically associating metadata with the created data. My analysis of Dr. Greenberg's report addressing Claims 1 and 9 thoroughly discusses both of these concepts.

108. Dr. Greenberg's analysis for Claim 21 does not address any new material beyond that which he discussed with respect to Claims 1, 9, and 11. The only discussion contained in Dr. Greenberg's chart for this claim contains references to other portions of his report. Greenberg Expert Report, Ex. C-1 at 16-17. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 21 because, at the very least, Claims 1, 9 and 11 describe computer systems and Claim 21 describes a computer-readable medium containing computer instructions. Claim 21 also contains different limitations than Claims 1, 9 and 11. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 23**

109. I disagree with Dr. Greenberg's opinion that the '538 Patent and the '179 Patent invalidate Claim 23 of the '761 Patent. For example, I disagree that the '538 Patent and the '179 Patent disclose a web-based server. The '538 Patent and the '179 Patent teach a DMS system which is found on a local network. The '538 Patent and the '179 Patent do not teach a system which is hosted on the Internet. None of Dr. Greenberg's citations indicate that the DMS system in hosted on the Internet. Instead, the citations provide that web pages may be found on the Internet, and then brought into the DMS. These citations, including "a web page found by the principal... [may] be brought into the DMS document space" describe the process by which a web page can be stored in a DMS and not that the disclosed DMS is itself a web-based product. '538 Patent, Col. 3, ll. 29-36; '179 Patent, Col. 2, ll. 3-5 (emphasis added). Moreover, none of Dr. Greenberg's citations teach that data is created within a user environment of a web-based computer platform via user interaction with the user environment. Instead, the citations teach

that content is created in a different system, and that document may be brought into the DMS document space. For instance, "[t]he document, for example, may be a document which the principal created, it may be an e-mail sent or received by the principal, a web page found by the principal...or any other form of electronic data...brought into the DMS document space." '538 Patent, Col. 3, ll. 29-36 (emphasis added).

110. In addition, for a majority of the elements of Claim 23, Dr. Greenberg does not provide any new citations of analysis but rather merely references the analysis he provided from Claim 1. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 23 because Claim 1 and Claim 23 describe different systems that perform different functions and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 23, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

111. The first element of Claim 23 discloses a computer-implemented context component of a web-based server for defining a first user workspace. As I mentioned above, the '538 Patent and the '179 Patent do not disclose a web-based server. In addition, these references do not disclose a context component for defining user workspaces. All of the references to the '538 and '179 Patents cited to by Dr. Greenberg disclose users defining properties of documents and users placing documents into "containers." Greenberg Expert Report, Ex. C-1 at 17-19. However, none of these references describe a computer-implemented context component, a piece of software that is used to define a user workspace on a web-based server. With regard to the second element of Claim 23, Dr. Greenberg cites to two portions of the '538 Patent that describe that some commercial software "understand DMS protocols for storing, retrieving and otherwise

interacting with" a DMS. Greenberg Expert Report, Ex. C-1 at 19. Neither of these references discuss user workspaces in a web-based system, or the process of assigning applications to a user workspace in a web-based system. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 23, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid.

112. Again, with regard to the third, fourth and fifth elements of Claim 23, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 23 because Claim 1 and Claim 23 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 23, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

113. Moreover, the citations provided by Dr. Greenberg do not teach that the user accesses the data from the second workspace. Instead, the '538 Patent and '179 Patent teach that different users provide different properties which results in different access to document. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

**Claim 25**

114. As discussed above, Claim 23 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 25 is dependent on Claim 23, Claim 25 is also valid in light of the '538 Patent and the '179 Patent. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

115. Furthermore, I disagree with Dr. Greenberg's opinion that the '538 and '179 Patents disclose a context component capturing data associated with the relationship between a first user workspace and other user workspaces. Dr. Greenberg's report and the relevant portions of Exhibit C-1 do not discuss a component capturing relationship data. Instead, the cited portions of the '538 and '179 Patents disclose users manually creating an association between data and a document. Greenberg Expert Report, Ex. C-1 at 20-22. These references do not disclose two important portions of Claim 25. First, they describe a manual, or user-defined, process of associating data that is distinctly different from the context component that automatically captures relationship data as disclosed in Claim 25. Second, the data stored by the cited portions of the '538 and '179 Patents is data associated with the document and not data associated with the relationship between one user workspace and a second user workspace. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate Claim 25 of the '761 Patent.

**Claim 31**

116. As discussed above, Claim 23 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 31 is dependent on Claim 23, Claim 25 is also valid in light of the '538 Patent and the '179 Patent. Moreover, Dr. Greenberg has failed to provide sufficient evidence to prove that the '761 Patent is invalid. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

**Claim 32**

117. As discussed above, Claim 23 of the '761 Patent is valid in light of the '538 Patent and the '179 Patent. Because Claim 32 is dependent on Claim 23, Claim 25 is also valid in light of the '538 Patent and the '179 Patent. Moreover, Dr. Greenberg has failed to provide

sufficient evidence to prove that the '761 Patent is invalid. For at least these reasons, the '538 Patent and the '179 Patent do not invalidate the '761 Patent.

**iManage**

118. I disagree that the iManage manual anticipates the '761 Patent. First, the iManage manual cited by Dr. Greenberg is not prior art because it is not an enabling disclosure. Specifically, the iManage manual does not teach one of skill in the art how to make the product. Instead, the iManage manual is merely a reference tool used to illustrate how the product works. There is no description on how to build the product which makes sense because the company that owns the product would not want to teach competitors how to make competing products. In fact, Dr. Greenberg does not assert that the iManage manual is an enabling disclosure. Instead, he merely notes that iManage described an actual working product that was available for purchase and use. The fact that the product was working does not teach one of skill how to make the product. Indeed, the iManage Manual states, "the iManage DeskSite User Reference Manual is intended for end users of iManage DeskSite." *See* iManage manual at 11 (emphasis added). Furthermore, the product is sold as a software bundle without access to the actual components and source code that are used to build the product. To determine how to build the product by purchasing it off of the shelf would take a great deal of reverse engineering, and even then, it is highly unlikely that one of skill would be able to understand how the product was built. Therefore, it is my opinion that Dr. Greenberg has failed to provide sufficient evidence to prove that the iManage document is prior art and anticipates the '761 Patent.

119. Furthermore, Dr. Greenberg fails to provide sufficient proof required to invalidate a patent. Specifically, Dr. Greenberg's descriptions are extremely general, do not address all of the elements, and are often inaccurate as to the actual disclosure. Moreover, his citations do not

support his conclusions. Furthermore, the basis of Dr. Greenberg's assertions are inconsistent. For example, Dr. Greenberg relies on different independent embodiments for each claim element. As result, it is indistinguishable which embodiments correspond together for a claim. For example, his claim chart for Claim 1 asserts that the iManage DeskSite is the computer-implemented network based-system, the context component, the tracking component and the first context. In another example, Dr. Greenberg differentiates the term "documents" from the term "context" by stating that "documents" are user data, while "contexts" are separate applications, computers and/or locations. *See* Greenberg Expert Report, ¶36. Yet inexplicably, Dr. Greenberg also asserts that the term "context" can also be different versions of documents. *See* Greenberg Expert Report, Ex. C-2 at 8. Furthermore, as mentioned above the basis for Dr. Greenberg's assertion is based on inconsistent interpretation of the terms of the '761 Patent. For example, Dr. Greenberg asserts that "a change of the user from the first context to a second context" means "from the first application to the second application or from the first location to the second location." *Id.* at 7. Dr. Greenberg goes on to state that "MANAGE32" as an example of the first application context and "WINWORD" as an example of the second application context. *Id.* Notably, MANAGE32 is merely the iManage DeskSite itself while "WINWORD" refers to Microsoft Word. For the next element of the same claim Dr. Greenberg completely changes the second context to mean "the activities on a document in the history system, the documents associated with the new version."[3] *Id.* at 9. Furthermore, Dr. Greenberg does not explain what is the corresponding first context for this incoherent example. As a consequence, Dr. Greenberg's disclosure has not provided sufficient evidence. Therefore, it is my opinion that Dr. Greenberg has failed to provide sufficient evidence to render the '761 Patent invalid.

[3] "wherein the user accesses the data from the second context."

120. Moreover, I disagree that the iManage manual invalidates the '761 Patent because the iManage manual discloses a document management system. As discussed above, there is a fundamental difference between a document management system and the '761 Patent. Moreover, the USPTO has already considered document management systems during the prosecution of the '761 Patent. Thus, the iManage manual is cumulative of the references considered during the prosecution history. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

121. Dr. Greenberg's opinion that the iManage manual the system disclosed in the '761 Patent is wrong for several reasons. Generally, the iManage manual discloses a system which stores files according to directory hierarchy which must be manually inputted by a user. '761 Patent, Col. 2, ll. 18-23. This is the exact opposite of the teachings of the '761 Patent which provides that directory hierarchies are inefficient for collaboration purposes. Moreover, the '761 Patent solves the problem of having to manually enter information about the documents. '761 Patent, Col. 2, ll. 50-59; Col. 13, ll. 47-54. Therefore, it is my opinion that the iManage manual is completely different than, and thus does not invalidate, the '761 Patent.

122. In addition, I disagree that the iManage manual invalidates the '761 Patent because the iManage manual does not disclose each and every element of the asserted claims. With regard to Claim 1, the iManage manual does not disclose a context component nor a tracking component as provided in the '761 Patent.

123. The iManage manual does not teach a context component as recited in Claim 1 of the '761 Patent. In fact, the concept of a context is completely absent from iManage system as it is merely a system which manages documents and does not provide the user with an environment or workspace to interact. Moreover, none of the citations that Dr. Greenberg provides discloses

that the iManage system contains a context component as provided in Claim 1 of the '761 Patent. This is because the iManage manual does not describe the inner workings of the product. It is completely silent as to how any information is captured and how it is stored (notably metadata does not appear anywhere within the iManage user manual). Furthermore, it is unclear how the iManage system populates any of its information, where the information comes from, and where it is eventually stored. In any case, the iManage manual does not disclose a context component which captures context information associated with user-defined input (especially since the concept of a context (as environment) is completely absent from the iManage manual). Moreover, the other citations that Dr. Greenberg provides does not support his opinion because the iManage manual teaches that first a user must create folders and the properties for that folder. iManage manual at 16. Then a user must choose which particular folder and file with which to put the data, and it further teaches the user to enter profile information manually before the document can be saved on to the system illustrating that there is no context component as recited in Claim 1 of the '761 Patent. *Id.* at 53. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

124. Moreover, the iManage manual does not teach a tracking component as recited in Claim 1 of the '761 Patent. Again, the iManage manual is completely silent as to the inner workings of the product so it is not possible to determine how data is collected, what data is collected, where data is collected from or where it is stored. Furthermore, nothing in the iManage manual suggests that the product tracks a user moving from a first context to a second context. The iManage manual teaches that the product is document centric. As previously revealed, Dr. Greenberg is unable to particularly state what in the iManage manual is supposed to be the tracking component. Instead, Dr. Greenberg vaguely asserts iManage DeskSite itself is

the tracking component. *See* Greenberg Expert Report, Ex. C-2 at 7. Many of the citations used by Dr. Greenberg to assert the existence of a tracking component are the same as the citations the ones he used when describing the context component which renders his analysis nonsensical. Furthermore, rather than tracking user activity, Dr. Greenberg's own citations state "[t]he Document History tab displays the activity record for a document. iManage manual at 83. The fact that a user moves from one context to another is not taught. Furthermore, the iManage manual does not teach that a user can access data from a second context. Instead, the iManage system is completely devoid of any contexts as recited in Claim 1 of the '761 Patent. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 4**

125. As discussed above, Claim 1 of the '761 Patent is valid in light of the iManage manual. Because Claim 4 is dependent on Claim 1, Claim 4 is also valid in light of the iManage manual. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

126. Furthermore, I disagree with Dr. Greenberg's opinion that the iManage manual discloses the capturing of context information which includes a relationship between the user and at least one of an application, application data, and user environment. In fact, the iManage manual does not teach the concept of context at all. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 7**

127. As discussed above, Claim 1 of the '761 Patent is valid in light of the iManage manual. Because Claim 7 is dependent on Claim 1, Claim 7 is also valid in light of the iManage manual. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

128. Furthermore, I disagree with Dr. Greenberg's opinion that the iManage manual discloses wherein the data created in the first context is associated with data created in the second context. As discussed above, the iManage manual does not teach the concept of context, much less the ability to associated data created in two contexts together. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 9**

129. I disagree with Dr. Greenberg's opinion that the iManage manual invalidates Claim 9 of the '761 Patent. Specifically, I disagree that the iManage manual discloses the computer-executable act of creating data within a user environment of a web-based computer platform via user interaction with the user environment by a user using an application, the data in the form of at least files and documents. The iManage manual teaches a DMS system which is found on a local network. The iManage manual does not teach a system which is hosted on the Internet. None of Dr. Greenberg's citations indicate that the DMS system in hosted on the Internet. Instead, the iManage manual describes a software application that runs on a Client PC. iManage manual at 18. Many of Dr. Greenberg's citations are for a different and separate product called iManage WorkSite. Any details of iManage WorkSite are a mystery. Yet, Dr. Greenberg regularly relies on the "iManage WorkSite Web Component server," "WorkSite box," and "iManage Work-Site." *See* Greenberg Expert Report, Ex. C-2 at 13. There are no explanations of how functionalities from another product "discloses user environments on a web-based computing platform" as asserted by Dr. Greenberg. Indeed on its face, the iManage WorkSite Web Component server seems to be only used for sending emails, a functionality that is not relevant to any of the claims. *See* iManage manual at 75. Moreover, the iManage manual provides no descriptions of the inner workings of the iManage WorkSite Web Component server,

"WorkSite box," or "iManage Work-Site." Furthermore, none of Dr. Greenberg's citations teach that data is created within a user environment of a web-based computer platform via user interaction with the user environment. For example, Dr. Greenberg merely states that "[t]he iManage Desktop also contains an address for accessing the web." *See* Greenberg Expert Report, Ex. C-2 at 13.

130. In addition, Dr. Greenberg attempts to include by reference the analysis he provided from Claim 1 into his analysis of Claim 9. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 9 because Claim 1 and Claim 9 are directed to different systems and contain different limitations. For example, Dr. Greenberg's assertion that the iManage manual teaches a web-based computing platform is inconsistent with his previous citation of Figure 1.1 for Claim 1. *See* Greenberg Expert Report, Ex. C-2 at 1. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

131. With regard to the second element of Claim 9, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1 or duplicates the same analysis and citations from Claim 1. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 9 because Claim 1 and Claim 9 are directed to different systems and contain different limitations. For example, Dr. Greenberg fails to define what he asserts to be a "user environment." The term "user environment" is not used in Claim 1. As a result, Dr. Greenberg's method of merely incorporating by reference results in inconsistencies as he seems to define "application" and "user environment" as the same thing. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is

my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

132. Again, with regard to the third element of Claim 9, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1 or duplicates the same analysis and citations from Claim 1. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 9 because Claim 1 and Claim 9 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

133. Again, with regard to the fourth element of Claim 9, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 1 and Claim 4, or duplicates the same analysis and citations from Claim 1 and Claim 4. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 9 because Claim 1 (and Claim 4) and Claim 9 are directed to different systems and contain different limitations. For example, Dr. Greenberg fails to define what he asserts to be the first and second "user environments," "application," and "employs." All of which are terms not used in Claim 1. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 11**

134. As discussed above, Claim 9 of the '761 Patent is valid in light of the iManage manual. Because Claim 11 is dependent on Claim 9, Claim 11 is also valid in light of the

iManage manual. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

135. Furthermore, I disagree with Dr. Greenberg's opinion that the iManage manual discloses indexing context of the user environment such that a plurality of users can access the content from an associated plurality of user environments. As discussed above, the iManage manual does not teach the concept of user environments. Furthermore, the iManage manual teaches a DMS system that is document centric. Dr. Greenberg own citations state, "profile searches are searches of the database based on a document's profile information." *See* Greenberg Expert Report, Ex. C-2 at 16. Here Dr. Greenberg asserts that "user environments" are applications or locations. Not only is this wrong, both definitions are also inconsistent with each other. Furthermore, Dr. Greenberg never asserts that iManage discloses "an associated plurality of user environments." Instead, he merely declares that, [t]hrough this document number the document can be located and/or accessed by a plurality of different users in a different user environment." *See id.* at 16. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 16**

136. As discussed above, Claim 9 of the '761 Patent is valid in light of the iManage manual. Because Claim 16 is dependent on Claim 9, Claim 16 is also valid in light of the iManage manual. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

137. Furthermore, I disagree with Dr. Greenberg's opinion that the iManage manual discloses accessing the user environment via a portable wireless device. Dr. Greenberg's citation of iManage Portable, is misplaced as it has no relation to the "portable wireless device" of Claim

16. Instead, iManage Portable is a mode of operation that allows users to continue to work on their PC using the iManage DeskSite application while disconnected from the network. *See* iManage manual at 173. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 21**

138. I disagree with Dr. Greenberg's opinion that the iManage manual invalidates Claim 21 of the '761 Patent. First, Dr. Greenberg continues to use an incomplete analysis to support his assertions. For example, he fails to state what "computer program" and on what "system" forms the basis of his computer-readable medium assertion. Furthermore, I disagree that the iManage manual discloses the computer-readable medium for creating data related to user interaction of a user within a user workspace of a web-based computing platform using an application. The iManage manual teaches a DMS system which is found on a local network. The iManage manual does not teach a system which is hosted on the Internet. None of Dr. Greenberg's citations indicate that the DMS system in hosted on the Internet. Instead, the iManage manual teaches a software application that runs on a Client PC. iManage manual at 18. Dr. Greenberg citations are inapposite. For example, the "iManage WorkSite Web Component server" is for a completely different product. There are no explanations of how functionalities from another product "discloses user environments on a web-based computing platform" as asserted by Dr. Greenberg. Indeed on its face, the iManage WorkSite Web Component server seems to be only used for sending emails, a functionality that is not relevant to any of the claims. *See* iManage manual at 75. Moreover, the iManage manual provides no descriptions of the inner workings of the iManage WorkSite Web Component server, "WorkSite box," or "iManage Work-Site." Furthermore, none of Dr. Greenberg's citations teach that data is created within a

user environment of a web-based computer platform via user interaction with the user environment. For example, Dr. Greenberg merely states that "[t]he iManage Desktop also contains an address for accessing the web." Furthermore, Dr. Greenberg's assertion that iManage is a web-based computing platform is inconsistent with his previous citations for claim 1. *See* Greenberg Expert Report, Ex. C-2 at 1.

139. In addition, Dr. Greenberg attempts to include by reference the analysis he provided from Claim 9 into his analysis of Claim 21. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 21 because Claim 9 and Claim 21 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

140. With regard to the second element of Claim 21, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 9 or duplicates the same analysis and citations from Claim 9. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 9 and Claim 21 are directed to different systems and contain different limitations. For example, Dr. Greenberg fails to define what he asserts to be a "user workspace." The term "user workspace" is not used in Claim 9. As a result, Dr. Greenberg's method of merely incorporating by reference results in inconsistencies as he seems to define "application" and "user workspace" as the same thing. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

141. Again, with regard to the third element of Claim 21, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 9 or duplicates the same analysis and citations from Claim 9. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 9 and Claim 21 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

142. Again, with regard to the fourth element of Claim 21, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 9 or duplicates the same analysis and citations from Claim 9. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 9 is directed to different systems and contain different limitations. For example, Dr. Greenberg fails to define what he asserts to be the first and second "user workspaces," "application," and "employs." All of which are terms not used in Claim 9. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

143. Again, with regard to the fifth element of Claim 21, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claim 11 or duplicates the same analysis and citations from Claim 11. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 11 is directed to different systems and contain different limitations. For example, Dr. Greenberg fails

to define what he asserts to be "user workspace," which is a term not used in Claim 11. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 23**

144. I disagree with Dr. Greenberg's opinion that the iManage manual invalidates Claim 23 of the '761 Patent. Furthermore, I disagree that the iManage manual discloses the computer-readable medium for creating data related to user interaction of a user within a user workspace of a web-based computing platform using an application. The iManage manual teaches a DMS system which is found on a local network. The iManage manual does not teach a system which is hosted on the Internet. None of Dr. Greenberg's citations indicate that the DMS system in hosted on the Internet. Instead, the iManage manual teaches a software application that runs on a Client PC. iManage manual at 18. Dr. Greenberg citations are inapposite. For example the "iManage WorkSite Web Component server" is for a completely different product. There are no explanations of how functionalities from another product "discloses user environments on a web-based computing platform" as asserted by Dr. Greenberg. Indeed on its face, the iManage WorkSite Web Component server seems to be only used for sending emails, a functionality that is not relevant to any of the claims. *See* iManage manual at 75. Moreover, the iManage manual provides no descriptions of the inner workings of the iManage WorkSite Web Component server, "WorkSite box," or "iManage Work-Site." Furthermore, Dr. Greenberg's assertion that iManage is a web-based computing platform is inconsistent with his previous citations for Claim 1. *See* Greenberg Expert Report, Ex. C-2 at 1.

145. In addition, Dr. Greenberg attempts to include by reference the analysis he provided from Claim 1 into his analysis of Claim 23. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 23 because Claim 1 and Claim 23 are directed to different systems and contain different limitations. Furthermore, Dr. Greenberg continues to use an incomplete analysis to support his assertions, as he merely cites to his analysis of Claim 9, another deficient analysis. For example, the WorkSite Web Component Server does not have any relation to Dr. Greenberg's manufactured terms of "application workspace", "location workspace," "version workspace," and "search workspace." Moreover, none of Dr. Greenberg's citations teach that the system assigns one or more applications to the first user workspace. Indeed, the iManage manual does not teach a user workspace at all. Furthermore, there is nothing that discloses that these third-party applications are assigned to Dr. Greenberg's contrived "application workspace", "location workspace," "version workspace," or "scarch workspace." In a further example, Dr. Greenberg declares that the storage component of a web-based server is an iManage Library. Yet, an iManage Library is not a storage component of any of Dr. Greenberg's asserted "web-based servers." To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 23, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

146. Again, with regard to the second element of Claim 23, Dr. Greenberg simply attempts to include by reference the analysis he provided from Claims 1 and 9 or duplicates the same analysis and citations from Claim 1. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 23 because Claim 1 is directed to different systems and contain different limitations. For example, Dr. Greenberg fails

to define what he asserts to be "user workspace," which is a term not used in Claim 1. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 23, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 25**

147. As discussed above, Claim 25 of the '761 Patent is valid in light of the iManage manual. Because Claim 25 is dependent on Claim 23, Claim 23 is also valid in light of the iManage manual. Moreover, Dr. Greenberg has failed to provide sufficient evidence to prove that the '761 Patent is invalid. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

148. Furthermore, I disagree with Dr. Greenberg's opinion that the iManage manual discloses that the context component captures relationship data associated with a relationship between a first user workspace and at least one other user workspace. As discussed above, the iManage manual does not teach the concept of a context and is document centric. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 31**

149. As discussed above, Claim 31 of the '761 Patent is valid in light of the iManage manual. Because Claim 31 is dependent on Claim 23, Claim 23 is also valid in light of the iManage manual. Moreover, Dr. Greenberg has failed to provide sufficient evidence to prove that the '761 Patent is invalid. Furthermore, I disagree with Dr. Greenberg's opinion that the iManage Library is a storage component of any of Dr. Greenberg's asserted "web-based servers." For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**Claim 32**

150. As discussed above, Claim 32 of the '761 Patent is valid in light of the iManage manual. Because Claim 32 is dependent on Claim 23, Claim 23 is also valid in light of the iManage manual. Moreover, Dr. Greenberg has failed to provide sufficient evidence to prove that the '761 Patent is invalid. For at least these reasons, the iManage manual does not invalidate the '761 Patent.

**The '575 Patent**

151. I disagree that the '575 Patent anticipates the '761 Patent. First, I disagree that the '575 Patent invalidate the '761 Patent because the '575 Patent is not prior art to the '761 Patent. Specifically, the '575 Patent was filed on September 10, 1999 and did not publish until August 6, 2002. As discussed above, the inventors of the '761 Patent conceived of the invention which resulted in the issuance of the '761 Patent no later than August 19, 1999. Furthermore, as discussed above, the earliest effective filing date of the '761 Patent is December 11, 2002. Because the '575 Patent was not filed before August 19, 1999 and did not publish before December 11, 2001, the '575 Patent is not prior art to the '761 Patent. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

152. In addition, it is my opinion that the '761 Patent is valid in light of the '575 Patent because Dr. Greenberg does not provide sufficient proof to invalidate a patent. Specifically, Dr. Greenberg's descriptions are extremely general, do not address all of the elements, and are often inaccurate as to the actual disclosure. Moreover, his citations do not support his conclusions. As a consequence, Dr. Greenberg's disclosure has not provided sufficient evidence. Therefore, it is my opinion that Dr. Greenberg has failed to provide sufficient evidence to render the '761 invalid.

153. Moreover, I disagree that the '575 Patent invalidates the '761 Patent because the '575 Patent discloses a document management system. As discussed above, there is a fundamental difference between a document management system and the '761 Patent. Moreover, the USPTO has already considered document management systems during the prosecution of the '761 Patent. Thus, the '575 Patent is cumulative of the references considered during the prosecution history. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

154. Dr. Greenberg's opinion that the '575 Patent discloses the system described in the '761 Patent is incorrect for several reasons. Generally, the '575 Patent discloses an application program interface which alters the views of documents depending on how a user defines the filing structure. This is the exact opposite of the teachings of the '761 Patent which solves the problem of having to manually enter information about the documents so that user can collaborate in an effective and efficient manner. '761 Patent, Col. 2, ll. 50-59; Col. 13, ll. 47-54. Therefore, it is my opinion that the '575 Patent is completely different than, and thus does not invalidate, the '761 Patent.

155. In addition, I disagree that the '575 Patent invalidates the '761 Patent because the '575 Patent does not disclose each and every element of the asserted claims. With regard to Claim 1, the '575 Patent does not disclose a context component nor a tracking component as provided in the '761 Patent.

156. Specifically, the '575 Patent does not disclose a context component as recited in Claim 1. In fact, the '575 Patent does not teach the concept of a context at all. Moreover, none of the citations provided by Dr. Greenberg illustrate that a context component captures context information associated with user-defined content. In fact, it discloses the opposite, namely that a

user is required to define both core and custom filing structures for the documents. For example, the '575 Patent states "[i]n accordance with the invention, there is provided a method and apparatus thereof, for sharing customization to a filing system in which documents stored in memory (e.g., a shared repository) are categorize and accessed by multiple users through an application program interface. To begin, the application program interface receives input for defining a core filing structure...." '575 Patent, Col. 2, ll. 25-32 (emphasis added). Moreover, the '575 Patent provides [i]n operation, a user at the application program interface 110 defines the core filing structure 118 to provide a generic framework (i.e., category schema) for categorizing the document 115 in the document store 114...Once defined, the core filing structure 118 can be viewed and/or edited at the application program interface 110 through category manager 112 to define customized filing structures 120. '575 Patent, Col. 4, ll. 11-15 (emphasis added). In summary, the '575 Patent states "[u]sers customize the filing structure to express how they want the shared collection of documents to be categorized." '575 Patent, Col. 9, ll. 39-41 (emphasis added).

157. In addition, the '575 Patent does not teach a tracking component as recited in Claim 1 of the '761 Patent. Dr. Greenberg does not provide any citation which meets this element. In fact, the citations that Dr. Greenberg provides teach that each user is given his own view of the categorization of documents and not multiple views. For example, the '575 Patent states "the particular level of customization is limited to a hierarchy of customization defined for a particular user." '575 Patent, Col. 5, ll. 43-46. Moreover, nothing in the '575 Patent teaches tracking a change of a user from a first context to a second context. This disclosure is simply absent as the concept of a context is not taught, much less the tracking of a user from one context to another. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

158. Furthermore, nothing in the '575 Patent teaches that the metadata is dynamically updated when the user access data from a second context. Dr. Greenberg's citations describe the instance in which a user defines the core filing structure (which happens to be the same analysis with regard to the context component thereby rendering his analysis nonsensical) that has nothing to do with the tracking of a user when a user access a data from a second context. Even worse, Dr. Greenberg states that the '575 Patent provides an example of how second contexts are dynamically updated, however this is not a claim limitation. Moreover, this statement is wrong because the filing structures are modified according to the user's input, not dynamically updated. Finally, Dr. Greenberg states that the structure translator is used as a tracking component that dynamically updates the stored metadata as a user access the data from a second context. This is also wrong because the translator merely translates the view of the core filing structures according to the particular user's customized filing structure and does not change as the same user access the data from a first context. '575 Patent, Col. 6, ll. 7-29 For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

**Claim 4**

159. As discussed above, Claim 1 of the '761 Patent is valid in light of the '575 Patent. Because Claim 4 is dependent on Claim 1, Claim 4 is also valid in light of the '575 Patent. For at least this reason, the '575 Patent does not invalidate the '761 Patent.

160. Furthermore, I disagree with Dr. Greenberg's opinion that the '575 Patent discloses the capturing of context information which includes a relationship between the user and at least one of an application, application data, and user environment. As discussed above, the '575 Patent teaches a DMS for where a user is required to define the core filing structure for the documents. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

**Claim 7**

161. As discussed above, Claim 1 of the '761 Patent is valid in light of the '575 Patent. Because Claim 7 is dependent on Claim 1, Claim 7 is also valid in light of the '575 Patent. For at least this reason, the '575 Patent does not invalidate the '761 Patent.

162. Furthermore, I disagree with Dr. Greenberg's opinion that the '575 Patent discloses that data created in the first context is associated with data created in the second context. Dr. Greenberg's analysis is based on the faulty premise that a view of a core or customized file structure is a context (environment). However, these are simply customized views of files in a typical hierarchical folder structure. Moreover, the '575 Patent does not disclose creating the data file in either a first or a second view of the filing structure. The '575 Patent simply teaches a way of viewing data, and does not disclose creating data. Furthermore, the '575 Patent does not disclose associating data in the file system with other data in the file system. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

163. For Claim 7, Dr. Greenberg again attempts to include by reference the analysis he provided for Claim 1. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 7 because Claim 1 and Claim 7 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 7, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 9**

164. I disagree with Dr. Greenberg's opinion that the '575 Patent invalidates Claim 9 of the '761 Patent. Specifically, I disagree that the '575 Patent discloses the computer-

executable act of creating data within a user environment of a web-based computer platform via user interaction with the user environment by a user using an application, the data in the form of at least files and documents. None of Dr. Greenberg's citations teach that data is created within a user environment of a web-based computer platform via user interaction with the user environment by an application. Instead, the citations teach that the system only serves to file the data brought into the document store of the system and filed using a user editable core filing structure. In part, the '575 Patent provides that "[i]n operation, a user at the application program interface 110 defines the core filing structure 118 to provide a generic framework (i.e., category schema) for categorizing the document 115 in the document store 114.... Once defined, the core filing structure 118 can be viewed and/or edited at the application program interface 110 through category manager 112 to define customized filing structures 120. '575 Patent, Col. 4, ll. 11-15 (emphasis added). In summary, the '575 Patent states "[u]sers customize the filing structure to express how they want the shared collection of documents to be categorized." '575 Patent, Col. 9, ll. 39-41. Dr. Greenberg's analysis is based on the faulty premise that a view of a core or customized file structure is equivalent to a user environment. However, these file views are simply customized views of files in a typical hierarchical folder structure. Moreover, the '575 Patent does not disclose creating the data file in either a first or a second view of the filing structure. The '575 Patent simply teaches a way of viewing data, and does not disclose creating data. Furthermore, the '575 Patent does not disclose associating data in the file system with other data in the file system. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

165. I disagree with Dr. Greenberg's opinion that the '575 Patent discloses dynamically associating metadata with the data, the data and metadata stored on a storage

component of the web-based computing platform, the metadata includes information related to the user, the data, the application, and the user environment. As discussed above, the '575 Patent does not disclose creating metadata for files in the system. Furthermore, Dr. Greenberg has referenced a section which refers to assigning unique document filing location identifiers to the data. However, there is no support that this is done dynamically, nor that this information corresponds to the user, the data, the application, and the user environment. Dr. Greenberg has referenced a section which states that the documents in a specific folder can be ordered based on there name, creation date, or file size, seemingly to imply that this information is used to create unique identifiers. However, this section does not relate to the creation of identifiers, rather it correspondents to a sort function within a folder for ordering the view of the documents. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

166. For most of Claim 9, Dr. Greenberg attempts to include by reference the analysis he provided for Claims 1 and 4. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 9 because Claims 1 and 4 are directed to different systems and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 9, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 11**

167. As discussed above, Claim 9 of the '761 Patent is valid in light of the '575 Patent. Because Claim 11 is dependent on Claim 9, Claim 11 is also valid in light of the '575 Patent. For at least this reason, the '575 Patent does not invalidate the '761 Patent.

168. Furthermore, I disagree with Dr. Greenberg's opinion that the '575 Patent discloses indexing content of the user environment such that a plurality of users can access the content from an associated plurality of user environments. Dr. Greenberg states that the data files are indexed because they are placed into a folder hierarchy. However, this incorrect as indexing data requires more then organizing documents into folders. Furthermore, and as discussed above, Dr. Greenberg's analysis for Claim 11 is based on the faulty premise that a view of a core or customized file structure is a user environment. These are simply customized views of files in a typical hierarchical folder structure. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

169. For Claim 11, Dr. Greenberg again attempts to include by reference the analysis he provided for Claim 1. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 11 because Claim 1 is directed to different systems and contain different limitations then Claim 11. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 11, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 16**

170. Dr. Greenberg has failed to provide any citations indicating how the limitation of Claim 16 is met by the '575 Patent. However, in his analysis he indicates that accessing the user environment via a portable wireless device is obvious. As such, I refer back to my previous discussion refuting the obviousness of Claim 16.

**Claim 21**

171. I disagree with the claim chart that the'575 Patent invalidates Claim 21 of the '761 Patent. First, the claim chart continues to use an incomplete analysis to support his assertions. For example, he fails to provide citations to the '575 Patent that disclose all elements of Claim 21. Furthermore, I disagree that the '575 Patent discloses the computer-readable medium for creating data related to user interaction of a user within a user workspace of a web-based computing platform using an application. First, as citations to the '575 Patent are not provided for all elements of Claim 21, it is improper to assert that the '575 Patent discloses this claim.

172. In addition, the claim chart attempts to include by reference the analysis he provided from Claim 9a into his analysis of Claim 21. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 21 because Claim 9 is directed to a different system and contain different limitations. For example, the claim chart fails to define what he asserts to be a "user workspace." The term "user workspace" is not used in Claim 9. As a result, the claim chart's method of merely incorporating by reference results in inconsistencies as he seems to define "application" and "user workspace" as the same thing. To the extent the claim chart has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed this aspect of the claim chart in my analysis above.

173. With regard to the second element of Claim 21, the claim chart simply attempts to include by reference the analysis he provided from Claim 9b or duplicates the same analysis and citations from Claim 9. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 9 is directed to a different system and contains different limitations. For example, the claim chart fails to define

what he asserts to be a "user workspace." The term "user workspace" is not used in Claim 9. As a result, the claim chart's method of merely incorporating by reference results in inconsistencies as he seems to define "application" and "user workspace" as the same thing. To the extent the claim chart has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed this aspect of the claim chart in my analysis above.

174. Again, with regard to the third element of Claim 21, the claim chart simply attempts to include by reference the analysis he provided from Claim 9c or duplicates the same analysis and citations from Claim 9. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 9 is directed to a different system and contains different limitations. For example, the claim chart fails to define what he asserts to be a "user workspace." The term "user workspace" is not used in Claim 9. As a result, the claim chart's method of merely incorporating by reference results in inconsistencies as he seems to define "application" and "user workspace" as the same thing. To the extent the claim chart has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed this aspect of the claim chart in my analysis above.

175. Again, with regard to the fourth element of Claim 21, the claim chart simply attempts to include by reference the analysis he provided from Claim 9d or duplicates the same analysis and citations from Claim 9. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 9 is directed to a different system and contains different limitations. For example, the claim chart fails to define what he asserts to be a "user workspace." The term "user workspace" is not used

in Claim 9. As a result, the claim chart's method of merely incorporating by reference results in inconsistencies as he seems to define "application" and "user workspace" as the same thing. To the extent the claim chart has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed this aspect of the claim chart in my analysis above.

176. Again, with regard to the fifth element of Claim 21, the claim chart simply attempts to include by reference the analysis he provided from Claim 11 or duplicates the same analysis and citations from Claim 11. I do not believe such incorporation by reference or duplication of analysis fully addresses all of the limitations of Claim 21 because Claim 11 is directed to a different system and contains different limitations. For example, the claim chart fails to define what he asserts to be "user workspace," which is a term not used in Claim 11. To the extent the claim chart has failed to address all of the additional limitations of Claim 21, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed this aspect of the claim chart in my analysis above.

**Claim 23**

177. I disagree with Dr. Greenberg's opinion that the '575 Patent invalidates Claim 23 of the '761 Patent. Specifically, I disagree that the '575 Patent discloses a computer implemented context component as disclose in Claim 23. First, Dr. Greenberg is incorrect in his assertion that a view of a customized file structure is a user workspace. As discussed above, this simply a customized view of documents in a file structure (a typical hierarchical folder arrangement). In addition, none of the citations provided by Dr. Greenberg illustrate a context component assigning applications to a user workspace. The '575 Patent simply does not disclose assigning applications to these structures. Furthermore, the only application discussed is the

actual program used to create and view the customized filing structure. The argument that this application is assigned to a filing structure is nonsensical as that application is what was used to create and view the filing structure, therefore requiring that it assign itself to the filing structure. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.

178. Dr. Greenberg also attempts to include by reference the analysis he provided from Claims 1, 2, and 9 into his analysis of the first and second elements of Claim 23. I do not believe such incorporation by reference fully addresses all of the limitations of Claim 23 because Claims 1, 2, and 9 are directed to different systems then Claim 23 and contain different limitations. To the extent Dr. Greenberg has failed to address all of the additional limitations of Claim 23, it is my opinion that he has not provided sufficient evidence to prove the '761 Patent is invalid. Otherwise, I have addressed Dr. Greenberg's opinion in my analysis above.

**Claim 25**

179. As discussed above, Claim 23 of the '761 Patent is valid in light of the '575 Patent. Because Claim 25 is dependent on Claim 23, Claim 25 is also valid in light of the '575 Patent. For at least this reason, the '575 Patent does not invalidate the '761 Patent.

180. Furthermore, I disagree with Dr. Greenberg's opinion that the '575 Patent discloses that the context component captures relationship data associated with a relationship between the first user workspace and at least one other user workspace. Dr. Greenberg relies on a faulty premise for this claim because the core and customized file structures taught in the '575 Patent (which is nothing more then a customized view of a hierarchical folder structure) are not user workspaces as relied upon by Dr. Greenberg. For at least these reasons, the '575 Patent does not invalidate the '761 Patent.