EXHIBIT K

IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

SOFTWARE RIGHTS ARCHIVE, LLC, **Plaintiff,** **v.** **GOOGLE INC., YAHOO! INC., IAC SEARCH & MEDIA, INC., AOL LLC, AND LYCOS, INC.,** **Defendants.**	**Civil Case No. 2:07-cv-511 (CE)**

DEFENDANTS' P. R. 3-3 DISCLOSURE

TABLE OF CONTENTS

I. INTRODUCTION

Pursuant to Patent Rule 3-3, Defendants Google Inc. ("Google"), AOL LLC ("AOL"), Yahoo! Inc. ("Yahoo!"), IAC Search & Media, Inc. ("IACSAM"), and Lycos, Inc. ("Lycos") (collectively "Defendants") hereby provide their joint Patent Rule 3-3 Disclosures (hereinafter "Invalidity Contentions") in response to the Plaintiff Software Rights Archive, LLC's ("SRA") Disclosure of Asserted Claims and Infringement Contentions Under Patent Rule 3-1 ("Infringement Contentions"). SRA contends that Defendants infringe the claims of U.S. Patent No. 5,544,352 ("the '352 Patent"), U.S. Patent No. 5,832,494 ("the '494 Patent"), and U.S. Patent No. 6,233,571 ("the '571 Patent") as set forth below:

Company	'352 Claims Asserted	'494 Claims Asserted	'571 Claims Asserted
Google Inc.	**26-42, 44, 45**	**1-3, 5, 7-16, 18-21, 23-25, 31-33**	**1, 3-22**
Yahoo! Inc.	**26-32, 34, 35-42, 44, 45**	**1-3, 5, 7-16, 18-21, 23-25, 31-33**	**1, 3-22**
IAC Search & Media, Inc.	**26, 27-32, 34-37, 41, 42, 44-45**	**1-3, 5, 7-16, 18-21, 23-25, 31-33**	**5-22**
AOL LLC	**26-42, 44, 45**	**1-3, 5, 7-16, 18-21, 23-25, 31-33**	**1, 3-22**
Lycos, Inc.	**26, 27-32, 34-37, 40-42, 44-45**	**1-3, 5, 7-16, 18-21, 23-25, 31-33**	**5-22**

With respect to each asserted claim and based on their investigation to date, Defendants hereby: (a) identify each currently known item of prior art that either anticipates or renders obvious each asserted claim; (b) specify whether each such item of prior art (or a combination of several of the same) anticipates each asserted claim or renders it obvious; (c) submit a chart identifying where each element in each asserted claim is disclosed, described, or taught in the prior art; and (d) identify the grounds for invalidating asserted claims based on indefiniteness under 35 U.S.C. § 112 ¶ 2 or enablement or written description under 35 U.S.C. § 112 ¶ 1.

In addition, pursuant to P. R. 3-4(a) and (b) and based on their investigation to date, Defendants will produce or make available for inspection materials currently in their respective possession, custody, or control required to accompany these Invalidity Contentions, excluding the prior art disclosed during prosecution of the patents-in-suit. Pursuant to the schedule in this case, this production is due on February 13, 2009. Each Defendant hereby incorporates into its production all such documents produced by other Defendants, excluding documents related to accused instrumentalities under P. R. 3-4(a). Each Defendant reserves the right to rely on all such documents produced by any other Defendant and SRA, any predecessors in interest, the named inventors, and any other third parties, as discovery pertaining to these systems and references is ongoing.

For the convenience of the parties, Defendants are submitting joint Invalidity Contentions. Each Defendant takes no position with respect to any claims that are not asserted against such Defendant, and reserves its rights to supplement these Invalidity Contentions should SRA assert new claims against any Defendant.

Defendants' Invalidity Contentions are based in whole or in part on their present understanding of the asserted claims and SRA's apparent positions as to the scope of the asserted claims as applied in its P. R. 3-1 disclosures. Accordingly, Defendants' Invalidity Contentions (including the attached invalidity claim charts) reflect, to the extent possible, SRA's expected alternative and potentially inconsistent positions as to claim construction and scope.

Deficiencies in SRA's Infringement Contentions have made it difficult for Defendants to understand SRA's infringement and claim construction positions. For example, for each asserted claim in its Infringement Contentions relating to Yahoo!, SRA alleges, without explanation, that "Yahoo's Software employs an infringing link popularity algorithm substantially identical to that

of Google's Software and, accordingly, each and every contention asserted against Google's Software is incorporated herein and asserted against Yahoo's Software." This lack of detail in SRA's infringement contentions have prejudiced Defendants' ability to prepare these Invalidity Contentions by forcing the Defendants to speculate as to SRA's actual position on the Defendants' alleged infringement.

Further, by including prior art that would anticipate or render obvious claims based on SRA's apparent claim constructions or any other particular claim construction, Defendants are not adopting nor acceding in any manner to SRA's apparent position on claim construction.

Defendants reserve the right to amend these Invalidity Contentions, for example, should SRA provide any information that it failed to provide in its P. R. 3-1 and 3-2 disclosures, or should SRA amend its P. R. 3-1 or 3-2 disclosures in any way. Further, because limited discovery has only recently begun, and because Defendants have not yet completed their search for and analysis of relevant prior art, Defendants reserve the right to revise, amend, and/or supplement the information provided herein, including identifying and relying on additional references should Defendants' further search and analysis yield additional information or references, consistent with the Patent Rules and the Federal Rules of Civil Procedure. Moreover, Defendants reserve the right to revise their ultimate contentions concerning the invalidity of the asserted claims, which may change depending upon the Court's construction of the asserted claims, any findings as to the priority date of the asserted claims, and/or positions that SRA or its fact or expert witness(es) may take concerning claim construction, infringement, and/or invalidity issues.

Prior art not included in this disclosure, whether known or not known to Defendants, may become relevant. In particular, Defendants are currently unaware of the extent, if any, to which

SRA will contend that limitations of the asserted claims are not disclosed in the prior art identified by Defendants. To the extent that such an issue arises, Defendants reserve the right to identify other references that would have made the addition of the allegedly missing limitation to the disclosed device or method obvious.

The accompanying invalidity claim charts list specific examples of where prior art references disclose, either expressly or inherently, each limitation of the asserted claims and/or examples of disclosures in view of which a person of ordinary skill in the art would have considered each limitation, and therefore the claim as a whole, obvious. The references, however, may contain additional support upon which Defendants may rely. Furthermore, where Defendants cite to a particular figure in a reference, the citation should be understood to encompass the caption and description of the figure and any text relating to the figure. Similarly, where Defendants cite to particular text referring to a figure, the citation should be understood to include the corresponding figure as well. Defendants may also rely on other documents and information, including cited references and prosecution histories for the patents-in-suit, and expert testimony to provide context or to aid in understanding the cited portions of the references.

The ’494 and ’571 Patents issued from applications claiming priority to the ’352 Patent. In its Infringement Contentions, SRA has alleged a “priority date” of June 14, 1993 for each asserted claim of the patents-in-suit. Defendants dispute this allegation, and SRA has not carried its burden of proving priority. The patent examiner has already determined that the claims of the ’494 Patent are not entitled to a priority date earlier than May 17, 1996 (*see, e.g.*, Notice of Allowability, Paper No. 7 at 3 in the ’494 prosecution history; EGG_0012228) and likewise with respect to the claims of the ’571 Patent (*see, e.g.*, Office Action dated July 19, 2000, Paper No.

14 at 3 in the ’571 prosecution history, EGG_0013724). Moreover, in its response to Defendants’ first common Interrogatory No. 3, SRA declined to identify with specificity each passage in which each claim element is described in any earlier filed application. Accordingly, these Invalidity Contentions identify references relevant to the validity of the claims in the ’494 and ’571 Patents to the extent some or all of such claims are in fact subject to a priority date of May 17, 1996 or later.

II. IDENTIFICATION OF PRIOR ART PURSUANT TO P. R. 3-3(A)

Pursuant to P. R. 3-3(a), and subject to Defendants’ reservation of rights, Defendants identify each item of prior art that anticipates or renders obvious one or more of the asserted claims in Tables 1 and 2 below. Table 1 provides the full identity of each prior art patent, including each patent by its patent number, country of origin, and date of issue. Table 2 provides information regarding several categories of prior art. For each non-patent prior art publication, Table 2 provides the title, date of publication, and where feasible, author and publisher. For prior art sales, offers for sale, uses, and knowledge, Table 2 provides the name of the item offered for sale or publicly used or known, the date the offer or use took place or the information became known, and the identity of the person or entity which made the use or made and received the offer, or the person or entity which made the information known or to whom it was made known. For each item of prior art under 35 U.S.C. § 102(g), Table 2 identifies the person(s) or entities involved in and the circumstances surrounding the making of the invention before the patent applicant(s). In addition, each disclosed item of prior art is evidence of a prior invention by another under 35 U.S.C. § 102(g).

Defendants reserve the right to assert that the asserted claims are invalid under 35 U.S.C. § 102(f) in the event Defendants obtain evidence that Daniel Egger, Shawn Cannon and/or Ronald Sauers, the inventors named in the asserted patents, did not invent (either alone or in

conjunction with others) the subject matter claimed in the asserted patents. Should Defendants obtain such evidence, they will provide the name of the person(s) from whom and the circumstances under which the invention or any part of it was derived.

Defendants further intend to rely on admissions of the named inventors and SRA concerning the prior art, including statements found in the patents-in-suit, their prosecution histories, related patents and/or patent applications, any deposition testimony, and the papers filed and any evidence submitted by SRA in conjunction with this litigation.

Table 1: Prior Art Patents And Patent Applications

Patent No. (Primary Inventor)	**Filing Date: Date of Issue/ Publication**	**Herein Referenced As**
U.S. 5,748,954 (Mauldin)	Filed Jun 5, 1995	Mauldin US 5748954
U.S. 5,855,015 (Shoham)	Filed May 12, 1995 Available under § 102(e) as of Mar. 20, 1995	Shoham US 5855015
U.S. 4,953,106 (Gansner et al.)	Issued Aug. 28, 1990	Gansner US 4953106
U.S. 5,446,891 (Kaplan et al.)	Issued Aug. 29, 1995 Available under § 102(e) as of February 26, 1992	Kaplan US 5446891
U.S. 5,838,906 (Doyle)	Filed October 17, 1994	Doyle US 5838906
PCT WO 95/00896	Published Jan. 5, 1995	'896 PCT

Table 2A: Items Used and/or Offered for Sale

Primary Author or Publisher	**Reference Title**	**Publication/ Use Date**	**Herein Referenced As**
Virginia Tech (Ed Fox)	ENVISION	On information and belief, before June 14, 1992	ENVISION
Cornell University	SMART	Before June 14, 1992	SMART
Brown University	Intermedia	Before June 14, 1992	Intermedia
Libertech	V-Search *Associated References*:	On or before March 29, 1995	Infobase '95

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
	March 21 Press Release April 24 Press Release LA Times Documents At a Glance EGG_0009554-93 EGG_0004956-99 STI_0011254-56		
NetCarta Corp.	Cyberpilot from NetCarta Corp.	Feb. 21, 1996 or earlier	NetCarta, 1996
Maudlin, M.	Lycos4.perl *Associated References:* Mauldin US 5748954	On or about May 1, 1994	Lycos
Columbia University	Structure Version 4.2 and earlier versions *Associated References:* Burt, 1991	1991 and earlier	Structure
Analytic Technologies	UCINET IV and earlier versions	October 1992 and earlier	UCINET

Table 2B: Prior Art Publications and Items Used and/or Offered for Sale

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
Salton, G.	Associative Document Retrieval Techniques Using Bibliographic Information, pp. 440-57	1963	Salton, 1963
Kessler, M.	TIP	On or about 1963	TIP
Kessler, M.	TIP User's Manual	1967	Kessler, 1967
Garner, R.	A Computer-Oriented Graph Theoretic Analysis of Citation Index Structures, (in Three Drexel Information Science Research Studies, Ed. Flood, B., Drexel Press)	1967	Garner, 1967
Salton, G.	Automatic Information Organization and Retrieval	1968	Salton, 1968
Goffman, W.	An Indirect Method of Information	1969	Goffman, 1969

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
	Retrieval, (in Information Storage Retrieval, Vol. 4, pp. 361-73)		
Salton, G.	Automatic Indexing Using Bibliographic Citations, (in Automatic Content Analysis, pp. 99-119)	1970	Salton, 1970
Salton, G.	The SMART Retrieval System - Experiments in Automatic Document Processing	1971	Salton, 1971
Schiminovich, S.	Automatic Classification and Retrieval of Documents by Means of a Bibliographic Pattern Discovery Algorithm, (in Inform. Stor. Retr., Vol. 6, pp. 417-35)	1971	Schiminovich, 1971
Bichteler, J. & Parsons, R.	Documents Retrieval by Means of an Automatic Classification Algorithm for Citations, (in Inform. Stor. Retr., Vol. 10, pp. 267-78)	1974	Bichteler & Parsons, 1974
Shimko, A.H.	An Experiments with Semantics and Goffman's Indirect Method, (in Information Storage Retrieval, Vol. 10, pp. 387-392)	1974	Shimko, 1974
Salton, G., Wong, A., Yang, C.S.	A Vector Space Model for Automatic Indexing, (in Communications of the ACM, Vol. 18, No. 11, pp. 613-20)	November 1975	Salton, 1975
Pinski, G. & Narin, F.	Citation Influence for Journal Aggregates of Scientific Publications: Theory, With Application to the Literature of Physics, (in Information Processing & Management, Vol. 12, pp. 297-312)	1976	Pinski, 1976
Bichteler, J. & Eaton, E.	Comparing Two Algorithms for Document Retrieval using Citation Links, (in Journal of the American Society of Information Science, Vol. 28, No. 4, pp. 192-195)	July 1977	Bichteler & Eaton, 1977
Garfield, E.	Citation Indexing - Its Theory and Application in Science, Technology and Humanities	1979	Garfield, 1979
Tapper, C.	The Use of Citation Vectors for Legal Information Retrieval, (in Journal of Law and Information	1982	Tapper, 1982

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
	Science, Vol. 1, No. 2, pp. 131-61)		
Kochtanek, T.	Bibliographic Compilation Using Reference and Citation Links, (in Information Processing & Management, Vol. 18, No. 1, pp. 33-39)	1982	Kochtanek, 1982
Fox, E.	Some Considerations for Implementing the SMART Information Retrieval System under UNIX	1983	Fox/SMART, 1983
Fox, E.	Extending the Boolean and Vector Space Models of Information Retrieval with P-Norm Queries and Multiple Concept Types	1983	Fox Thesis, 1983
Fox, E.	Characterization of Two New Experimental Collections in Computer and Information Science Containing Textual and Bibliographic Concepts	1983	Fox Collections, 1983
Salton, G. & McGill, M.	Introduction to Modern Information Retrieval	1983	Salton & McGill, 1983
Fox, E.	Combining Information in an Extended Automatic Information Retrieval System for Agriculture	1984	Fox Agriculture, 1984
Fox, E.	Composite Document Extended Retrieval (in Proceedings of the 8th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval)	1985	Fox, 1985
Belew, Richard K.	Adaptive Information Retrieval: Machine Learning in Associative Networks	1986	Belew, 1986
Conklin, J.	Hypertext: An Introduction and Survey, IEEE, 17-40	1987	Conklin, 1987
Croft, W.B., Lucia, T.J. & Cohen, P.R.	Retrieving Documents by Plausible Inference: A Preliminary Study (in Proceedings of the 11th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval)	1988	Croft, Lucia & Cohen, 1988
Armstrong, C. & Large, J.	Manual of Online Search Strategies	1988	Armstrong, 1988

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
Frisse, M.	Searching for Information in a Hypertext Medical Handbook, (in Communications of the ACM, Vol. 31, No. 7, pp. 880-86)	July 1988	Frisse, 1988
Salton, G. & Buckley, C.	On the Use of Activation Methods in Automatic Information Retrieval, (from Proceedings of the 11th Annual International ACM SIGIR Conference, pp. 147-60)	1988	Salton, 1988
Fox, E., Nunn, G. & Lee, W.	Coefficients for Combining Concept Classes in a Collection, (in Proceedings of the 11th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval)	1988	Fox, 1988
Conklin, J., Begeman, M.	gIBIS: A Hypertext Tool for Exploratory Policy Discussion, ACM, pp. 140-52 (1988)	1988	Conklin, 1988
Croft, W.B. & Turtle, H.	A Retrieval Model for Incorporating Hypertext Links, (in Proceedings of the second annual ACM conference on Hypertext)	1989	Croft & Turtle, 1989
Frisse, M.E. & Cousins, S.B.	Information Retrieval from Hypertext: Update on the Dynamic Medical Handbook Project (in Proceedings of the Second Annual ACM Conference on Hypertext)	1989	Frisse/Cousins, 1989
Berners-Lee, Tim	Information Management: A Proposal, CERN, (http://www.w3.org/History/1989/proposal.html)	1989	Berners-Lee, 1989
Thompson, R.	The Design and Implementation of an Intelligent Interface for Information Retrieval	February 1989	Thompson, 1989
Rose, D.E. & Belew, R.K.	Legal Information Retrieval: A Hybrid Approach, ACM, pp. 138-146	1989	Rose, 1989
Kommers, P.	Graph Computation as an Orientation Device in Extended and Cyclic Hypertext Networks, (in Designing Hypermedia for Learning)	1990	Kommers, 1990
Nielsen, J.	Hypertext and Hypermedia	1990	Nielsen, 1990b

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
Shepherd, M., Watters, C., & Cai, Y.	Transient Hypergraphs for Citation Networks, (in Information Processing & Management, Vol. 26, No. 3, pp. 395-412)	1990	Shepherd, 1990
Nielsen, J.	The Art of Navigating through Hypertext, (in Communications of the ACM, Vol. 33, No. 3, pp. 296-310)	March 1990	Nielsen, 1990
Lucarella, D.	A Model for Hypertext-Based Information Retrieval, (in Proceedings of the ECHT'90. INRIA, Cambridge University Press, N. Streitz, A. Rizk, and J. Andre, eds., pp. 81-94)	November 1990	Lucarella, 1990
Turtle, H.	Inference Networks for Document Retrieval - A Dissertation Presented by Howard Robert Turtle, (in Proceedings of the 13th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval)	1991	Turtle, 1991
Turtle, H., Croft, W.B.	Evaluation of an Inference Network-Based Retrieval Model, (in ACM Transactions on Information Systems (TOIS))	1991	Turtle & Croft, 1991
Shaw, W.N.	Subject and Citation Indexing. Part I: The Clustering Structure of Composite Representations in the Cystic Fibrosis Document Collection, (in Journal of the American Society for Information Science and Technology)	1991	Shaw Part I, 1991
Shaw, W.N.	Subject and Citation Indexing. Part II: The Optimal Cluster-Based Retrieval Performance of Composite Representations, (in Journal of the American Society for Information Science and Technology)	1991	Shaw Part II, 1991
Brunei, D., Cross, B., Fox, E., Heath, L., Hix, D., Nowell, L. & Wake, W.	What If There Were Desktop Access to the Computer Science Literature?, (in Proceedings of the 1993 ACM Conference on	February 16-18, 1993	Brunei, 1993

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
	Computer Science, p.15-22)		
Gelbart, D., Smith, J.C.	Beyond Boolean Search: FLEXICON, A Legal Text-Based Intelligent System, (ACM, pp. 225-234)	1991	Gelbart, 1991
Lin, X.	A Self-Organizing Semantic Map for Information Retrieval, SIGIR '91 (1991)	1991	Lin, 1991
Burt, Ronald	Structure Version 4.2, Reference Manual, (Columbia University)	1991	Burt, 1991
Berk, E. & Devlin, J.	Hypertext / Hypermedia Handbook	1991	Berk, 1991
Dunlop, M.D. & van Rijsbergen, C.J.	Hypermedia and Free Text Retrieval	1991	Dunlop, 1991
Rada, Roy	Hypertext – From Text to Expertext	1991	Rada, 1991
Rose, D.E.	A Symbolic and Connectionist Approach to Legal Information Retrieval	1991	Rose, 1991
Frei, H.P. & D. Stieger	Making Use of Hypertext Links when Retrieving Information, (in Proceedings of the ACM Conference on Hypertext, pp. 102-111)	1992	Frei & Stieger, 1992
Botafogo, R.A., Rivlin, E. & Schniederman, B.	Structural Analysis of Hypertexts: Identifying Hierarchies and Useful Metrics, (in ACM Transactions on Information Systems, Vol. 10, 142-180)	April 1992	Botafogo, 1992
Alain, L. & Claire, F.	Hypertext Paradigm in the Field of Information Retrieval: A Neural Approach, (in ACM ECHT Conference, pp. 112-21)	1992	Alain, 1992
Guinan, C., Smeaton, A.	Information Retrieval from Hypertext Using Dynamically Planned Guided Tours, (in ACM ECHT Conference, pp. 122-30)	1992	Guinan, 1992
Chen, Q.	LEND Pattern Language Syntax Specification: VER 1.3	October 12, 1992	Chen, 1992
Chen, Q.	Object-Oriented Database System for Efficient Information Retrieval Applications	March, 1992	Chen Thesis, 1992
UCINET	UCINET IV: Network Analysis Software (Product Description)	1992	UCINET, 1992
Fox, E., Hix, D, Novell,	Users, User Interfaces, and	1993	Fox Envision,

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
L., Brueni, D., Wake, W. & Heath, L.	Objects: Envision, a Digital Library, (in Journal of the American Society for Information Science and Technology)		1993
Croft, B. & Turtle, H.	Retrieval Strategies for Hypertext, (in Information Processing & Management, Vol. 29, No. 3, pp. 313-24)	1993	Croft, 1993
Betrabet, S., Fox, E. & Chen, Q.	A Query Language for Information Graphs	Jan. 27, 1993	Betrabet, 1993
Betrabet, S.	A Query Language for Information Graphs	December 1993	Betrabet Thesis, 1993
Pinkerton, B.	Finding What People Want: Experiences with the WebCrawler	1994	Pinkerton, 1994
Conrad, J. & Utt, Mary	A System for Discovering Relationships by Feature Extraction from Text Databases, (in Proceedings of the 17th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 260-270)	July 1994	Conrad & Utt, 1994
De Bra, P. & Post, R.D.J.	Information Retrieval in the World-Wide Web: Making Client-Based Searching Feasible, (in Computer Networks and ISDN Systems Vol. 27, pp. 183-192)	1994	DeBra, 1994
McKee, D.	Towards Better Integration of Dynamic Search Technology and the World-Wide Web, (Proc. 1st Int. Conf. on the World Wide Web, pp. 129-35)	1994	McKee, 1994
Krol, Ed.	The Whole Internet	1994	Krol, 1994
Herzner, W. & Kappe, F.	Multimedia/Hypermedia in Open Distributed Environments	1994	Herzner, 1994
Pitkow,J. and Bharat, K.A.	Webviz: A Tool for World-Wide Web Access Log Analysis, in Proceedings of the First International WWW Conference, and GVU Technical Report: GIT-GVU-94-20	October 1994	Pitkow, 1994
France, R, Cline, B., Fox, E.	MARIAN Design	1995	France, 1995
Kaplan, K.	New Ways to Find Needle in Data	March 29,	LA Times

Primary Author or Publisher	Reference Title	Publication/ Use Date	Herein Referenced As
	Haystack, (in Los Angeles Times, p. D4)	1995	
Frei, H.P. & Stieger, D.	The Use of Semantic Links in Hypertext Information Retrieval, (in Info. Processing & Mgmt Vol. 31, No.1, pp. 1-13)	January 1995	Frei & Stieger, 1995
March 21 Press Release		March 21, 1995	March 21 Press Release
April 24 Press Release		April 24, 1995	April 24 Press Release
Pirolli, P, Pitkow, J, and Rao, R.	Silk from a Sow's Ear: Extract Usable Structures from the Web, in Conference on Human Factors in Computing Systems, CHI-96	1996	Pirolli, 1996
Weiss, R, Velez, B, Sheldon, M.A., Namprempre, C, Szilagy, P, Duda, A., Gifford, D.K.	HyPursuit: A Hierarchical Network Search Engine that Exploits Content-Link Hypertext Clustering Conference on Hypertext and Hypermedia archive, Proceedings of the seventh ACM conference on Hypertext, page 180 - 193.	1996	Weiss, 1996
Bourne, C. & Hahn, T.	A History of Online Information Services, 1963-1976	2003	Bourne, 2003

III. INVALIDITY CONTENTIONS CONCERNING U.S. PATENT NO. 5,544,352

A. Disclosure of Invalidity Due to Anticipation Pursuant to P. R. 3-3(b) and (c)

In accordance with P. R. 3-3(b) and (c), prior art references anticipating some or all of the asserted claims are listed in the tables below. A full citation to each reference is found in Tables 1 and 2, along with the "Short Name" used to identify each reference throughout these disclosures, including in the claim charts of Exhibits A-I. The charts in Exhibits A-B identify specific examples of where each limitation of the anticipated claims is found in that reference, either expressly, implicitly in the larger context of the passage, or inherently as understood by a person having ordinary skill in the art.

The following patents and publications are prior art under at least 35 U.S.C. §§ 102(a), (b), (e), and/or (g).

Table 3: Patents and Printed Publications Anticipating the Asserted Claims of the '352 Patent

Exhibit A Chart	Prior Art
Ex A-1	Salton, 1963
Ex A-2	Chen, 1992
Ex A-3	Garner, 1967
Ex A-4	Salton, 1968
Ex A-5	Goffman, 1969
Ex A-6	Salton, 1970
Ex A-7	Salton, 1971
Ex A-8	Schiminovich, 1971
Ex A-9	Bichteler & Parsons, 1974
Ex A-10	Shimko, 1974
Ex A-11	Pinski, 1976
Ex A-12	Bichteler & Eaton, 1977
Ex A-13	Garfield, 1979
Ex A-14	Tapper, 1982
Ex A-15	Kochtanek, 1982
Ex A-16	Fox/Smart, 1983
Ex A-17	Fox Thesis, 1983
Ex A-18	Fox Collections, 1983
Ex A-19	Salton and McGill, 1983
Ex A-20	Fox Agriculture, 1984
Ex A-21	Fox, 1985
Ex A-22	Belew, 1986
Ex A-23	Armstrong, 1988
Ex A-24	Croft, Lucia & Cohen, 1988
Ex A-25	Frisse, 1988
Ex A-26	Salton, 1988
Ex A-27	Fox, 1988
Ex A-28	Croft & Turtle, 1989
Ex A-29	Frisse/Cousins, 1989
Ex A-30	Rose, 1989
Ex A-31	Thompson, 1989
Ex A-32	Kommers, 1990
Ex A-33	Lucarella, 1990
Ex A-34	Nielsen, 1990
Ex A-35	Nielsen, 1990b
Ex A-36	Shepherd, 1990
Ex A-37	Berk, 1991

Exhibit A Chart	Prior Art
Ex A-38	Burt, 1991
Ex A-39	Dunlop, 1991
Ex A-40	Gelbart, 1991
Ex A-41	Rada, 1991
Ex A-42	Rose, 1991
Ex A-43	Shaw Part I, 1991
Ex A-44	Shaw Part II, 1991
Ex A-45	Turtle, 1991
Ex A-46	Turtle & Croft, 1991
Ex A-47	Alain, 1992
Ex A-48	Frei & Stieger, 1992
Ex A-49	Botafogo, 1992
Ex A-50	Chen/Thesis, 1992
Ex A-51	Guinan, 1992
Ex A-52	UCINET, 1992
Ex A-53	Betrabet, 1993
Ex A-54	Brunei, 1993
Ex A-55	Croft, 1993
Ex A-56	U.S. Pat. No. 5,446,891
Ex A-57	Chen, 1992

The asserted claims of the ’352 Patent are invalid for public use and/or offers for sale of products and services that anticipate such claims under 35 U.S.C. § 102(a) or (b) and/or the purported invention of the claims was made in this country by another inventor who had not abandoned, suppressed, or concealed it under 35 U.S.C. § 102(g). The following description and events are provided on information and belief and are supported by the information and documents that will be produced by February 13, 2009.

Table 4: Public Use/Prior Sale References Anticipating the Asserted Claims of the ’352 Patent

Exhibit B Chart	Prior Art
Ex B-1	TIP
Ex B-2	ENVISION
Ex B-3	SMART
Ex B-4	Intermedia
(*see* Ex A-38)	STRUCTURE
(*see* Ex A-52)	UCINET

B. Disclosure of Invalidity Due to Obviousness Pursuant to P. R. 3-3(b) and (c)

The asserted claims of the ’352 Patent are invalid as obvious under 35 U.S.C. § 103.

1. Obviousness Combinations

Each prior art reference disclosed in the preceding sections (*see* § III.A), either alone or in combination with other prior art, also renders the asserted claims invalid as obvious. Furthermore, Defendants identify the following additional exemplary prior art references that either alone or in combination with other prior art (including any of the above anticipatory prior art) renders the asserted claims invalid as obvious under 35 U.S.C. § 103:

- Salton, 1975 (*see, e.g.*, Ex A-57).
- Conklin, 1987 (*see, e.g.*, Ex A-58).
- Conklin, 1988 (*see, e.g.*, Ex A-59).
- Seeley, J., “*The New of Reciprocal Influence*,” Can. Jour. Psych. 234-241 (1949).
- Katz, L., “*A New Status Index Derived From Sociometric Analysis*,” Psychometrika, Vol. 18, No. 1 pp. 39-43 (1953).
- Bar-Hillel, Y., “*A Logician's Reaction to Recent Theorizing on Information Search Systems*,” American Documentation 8(2): 103-113 (1957).
- Harary, F., Norman, R.Z., Cartwright, D, “*Structural Models: An Introduction to the Theory of Directed Graph*,” John Wiley & Sons, Inc., (1965), (*see, e.g.*, Preface, Ch. 1 (Digraphs and Structures), Ch. 5 (Digraphs and Matrices), and Ch. 14 (Networks)).
- Bell Laboratories, “S - A Language for Data Analysis” (1981).
- Hubbell, C., “*An Input-Output Approach to Clique Identification*,” (1965).
- Jardine, N., van Rijsbergen, C.J., “*The Use of Hierarchical Clustering in Information Retrieval*,” (1971).

- Salton, G., Bergmark, D., "*A Citation Study of the Computer Science Literature*," IEEE Trans on Professional Communication 22(3):146-158 (also published as Cornell TR 79-364) (1979).
- van Rijsbergen, C.J., "*Information Retrieval*," (1979).
- Jain, A., Dubes, R., "*Algorithms for Clustering Data*," (1988).
- Salton, G., Buckley, C., "*On the Use of Spreading Activation Methods in Automatic Information Retrieval*," (Proc. 11th SIGIR, pp. 147-160, also published as Cornell TR 88-907) (April 1988).
- Pao, M., Worthen, D., "*Retrieval Effectiveness by Semantic and Citation Searching*," J. Am. Society Info. Sci. 40(4):226-235 (1989).
- Golub, G., Van Loan, C.F., "*Matrix Computation*," (Johns Hopkins University Press) (1989).
- Consens, M.P. and Mendelzon, A.O., "*Expressing Structural Hypertext Queries in GraphLog*," Hypertext '89 Proceedings, pp. 269-292 (1989).
- Kaufman, L., Rousseeuw, P. "*Finding Groups in Data - An Introduction to Cluster Analysis*," (1990).
- Korfhage, "*To See, or Not to See – is That the Query*," Proceedings of the 14th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 134 – 141, (1991).
- Li, T., Chiu, V., Gey, F. "*X-Window Interface to SMART, an Advanced Text Retrieval System*, " SIGIR Forum, pp. 5-16 (1992).
- Agosti, M., Gradenigo, G., Marchetti, P., "*A Hypertext Environment for Interacting With Large Databases*," (IP&M 28:371-387) (1992).

- Agosti, M., Marchetti, P., "*User Navigation in the IRS Conceptual Structure Through a Semantic Association Function*," (The Computer Journal 35:194-199) (1992).
- Salton, G., Allan, J., Buckley, C., "*Approaches to Passage Retrieval in Full Text Information Systems*," (Proc. 16th SIGIR Conf.) (1993).
- Hearst, M., Plaunt, C., "*Subtopic Structuring for Full-Length Document Access*," (Proc. 16th SIGIR) (1993).

In addition, Defendants incorporate by reference each and every prior art reference of record in the prosecution of the patents-in-suit and related applications, including the statements made therein by the applicant and the examiner, the prior art discussed in the specification, and any other statements found in the intrinsic record.

In particular, each prior art reference may be combined with (1) information known to persons skilled in the art at the time of the alleged invention, (2) any of the other anticipatory prior art references, (3) any statements in the intrinsic record of patents-in-suit and related applications, and/or (4) any of the additional prior art identified above. To the extent that SRA contends that any of the anticipatory prior art fails to disclose one or more limitations of the asserted claims, Defendants reserve the right to identify other prior art references that, when combined with the anticipatory prior art, would render the claims obvious despite the allegedly missing limitation. Defendants contentions are made subject to its reservations above and based on Defendants' present understanding of the asserted claims of the '352 Patent and the apparent constructions in SRA's Infringement Contentions.

Exhibit C includes claim charts for the asserted claims of the '352 Patent using specific and exemplary combinations of references:

Table 5: References Rendering Obvious Asserted Claims of the ’352 Patent

Exhibit C Chart	Prior Art
Ex C-1	103 Chart
Ex C-2	Nielsen, 1990b and Frisse, 1988
Ex C-3	Salton, 1963 and Pinski, 1976
Ex C-4	Salton & McGill, 1983 and Tapper, 1982
Ex C-5	Fox Thesis, 1983 and Berk, 1991
Ex C-6	Belew, 1986 and Rose, 1991

In addition to the exemplary combinations of prior art in Exhibit C, Defendants reserve the right to rely on any other combination of any prior art disclosed herein.

2. Motivation to Combine

The United States Supreme Court recently clarified the standard for what types of inventions are patentable. *See KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). In particular, the Supreme Court emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *See id.* at 1732, 1738, 1742-1743, 1746. In that regard, a patent claim may be obvious if the combination of elements was obvious to try or there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent’s claims. In addition, when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, 35 U.S.C. § 103 likely bars its patentability.

The ’352 Patent is obvious because it simply uses known methods in the field of information retrieval to obtain predictable results. *See KSR*, 127 S. Ct. at 1742 (2007). For

example, it was well-known to use information about the direct and indirect links between documents and data for information retrieval. The '352 Patent simply combines these and other known methods. Furthermore, there was a recognized need and market pressure to develop the methods disclosed therein for indexing, searching, and displaying data. *See, e.g.*, Fox Thesis, 1983 at 1 ("An important concern today is how people will be able to locate specific information out of the vast collections of data now in existence"); Salton & McGill, 1983 at 1 ("Most people are faced with a need for information at some time or other"). Those in the field were motivated to develop effective methods of information retrieval for large hypertext databases. *See, e.g.*, Nielsen, 1990b, at 188-189. The early version of the Internet (W3) emphasized access to information ("The World-Wide Web (W3) initiative is a practical project to bring a global information universe into existence") as well as search and links ("both hypertext links and text search are important parts of the model"). Berners-Lee 1992 at 1, 7. Accordingly, the design needs and market pressures in the field provide ample reason to combine prior art elements. *See KSR*, 127 S. Ct. at 1742.

Moreover, a person of ordinary skill in the art had good reason to pursue the known options. *See id.* Indeed, a person skilled in the art would have been familiar with all the claim elements, including those that the patentee used to distinguish the prior art during prosecution. Application of those familiar elements for their primary or well-known purposes in a manner was well within the ordinary level of skill in the art. Accordingly, common sense and the knowledge of the prior art render the claims invalid under either 35 U.S.C. § 102 or § 103.

A person of ordinary skill would have been motivated to combine the above prior art based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. The identified prior art address the same or similar

technical issues and suggest the same or similar solutions to those issues. Moreover, some of the prior art refers to or discusses other prior art, illustrating the close technical relationship among the prior art.

To the extent that SRA challenges a combination of prior art with respect to a particular element, Defendants reserve the right to supplement these contentions to further specify the motivation to combine the prior art. In this regard, Defendants may rely on cited or uncited portions of the prior art, other documents including related materials, treatises, surveys, textbooks, theses, and expert testimony to establish or confirm that a person of ordinary skill in the art would have been motivated to modify or combine the prior art so as to render the claims invalid as obvious.

Information Retrieval. One of ordinary skill in the art would have been motivated to combine references relating to information retrieval (sometimes called information storage and retrieval, often abbreviated as IR, and supported by professional groups like ACM SIGIR) for the reasons above, as well as the ones that follow. Examples of combinations of prior art references relating to information retrieval include: Salton & McGill, 1983 and Frisse, 1988; Salton, 1963 and Pinski, 1976; Tapper, 1982 and Burt, 1991; Fox Thesis, 1983 and Garner, 1967; Thompson, 1989 and Salton, 1968; and Belew, 1987 and Rose, 1989. These combinations are merely illustrative, as numerous other combinations as possible. These exemplary combinations should not be interpreted as indicating that any individual reference is not alone invalidating prior art under 35 U.S.C. §§ 102 and 103.

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references in the field of information retrieval, especially the references that used information about the direct and indirect relationships and links between documents. It was well

known to evaluate the relationships between documents (*e.g.*, citations and links) and to use metrics of such relationships to search and identify relevant documents. For example, in 1963 a specialist in the field of information retrieval "suggested . . . that bibliographic citations may provide a simple means for obtaining associated documents to be incorporated in an automatic documentation system." Salton, 1963 at 440. Other publications also demonstrate that it was well-known to use information about links to index, search, and display data. *See, e.g.*, Tapper, 1982, at 139 ("[C]itation vectors appeared, in theory, to offer a useful supplement to full text matching systems for the retrieval of legal information, and to be much more promising than word based vector systems."); Thompson, 1989 at 96 (noting that "[citation links] can be used directly to facilitate finding other documents"); Salton, 1968 at 379 ("A number of studies have been made to test whether similarities in the citation pattern of two or more papers in fact reflect similarities in the subject matter [50, 51]."); Salton & McGill, 1983 at 246 (observing the importance of relationships among data to "assess the importance of individual documents or of complete document collections, by assuming that citation frequencies reflect the influence of bibliographic items in a field of study."); Pinski, 1976 at 312 (using citations and "[a]n influence weighting methodology" to determine a "highly influential journal as opposed to an average publication in a peripheral journal.").

Second, the references themselves suggest their use in a variety of applications and combinations, thus further supporting a finding of obviousness. Salton & McGill, 1983 at 431 taught that "[v]iable solutions to the information problem will eventually be found by combining results derived from these various disciplines" and listed numerous disciplines including software engineering, information theory, linear algebra, and pattern recognition, and further it was known that graph theory was "applicable." Garner, 1967 at 4.

Third, the nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, as databases grew larger, "precision improvements have been noted in searches carried out with bibliographic [information]." Salton & McGill, 1983 at 247; *see also* Garner, 1967 at 5 ("It would be desirable to use large-scale, citation index files in machine language for searches involving manipulative techniques of interrogation."). Accordingly, it was well known in the art to take advantage of relationships among data for retrieval of that data.

For at least these reasons, one of ordinary skill in the art would have combined prior art references in the field of information retrieval with one another and with general knowledge in the field.

Information Retrieval and Information Display/Visualization. One of ordinary skill in the art would have been motivated to combine references relating to information retrieval with references teaching aspects of information display, information visualization, and user interfaces, for example any of the following: Conklin, 1987, Rose, 1989, Korfhage, 1991, Lin, 1991, Crouch, 1986, Thompson, 1989, Nielsen, 1990b, ENVISION, Li et al., "X-Window Interface to SMART".

First, a person of ordinary skill in the art would have been motivated to combine such references listed above because it was well known to enhance computer results with graphical displays, and in particular to present search results using visualization approaches and/or graphical displays. *See, e.g.*, Lin, 1991 at 268 ("There is increasing interest in information visualization for information retrieval"); Salton, 1968 at 352 (describing "displays which can be used to obtain access to information in both digital and image form"); Li et al. at 7 (describing the advantages of a "friendly graphical interface"). Further, in the context of hypertext, it was

well known that a suitable visualization and graphical display could increase its usability as a navigational aid. For example, Conklin, 1987, at 19 teaches that "[a] browser displays some or all of the hyperdocument as a graph, providing an important measure of contextual and spatial cues to supplement the user's model of which nodes he is viewing and how they are related to each and their neighbors in the graph," and so forth. Accordingly, the use of graphical displays of linked documents was well known in the art. *See also, e.g.*, Rose, 1989 at 143 (providing "interactive graphical interface" that "displays responses and their interconnections"); Korfhage, 1991 at 140 (providing information "in a graphical form that shows interrelations among the data."); Lin, 1991.

The nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, Korfhage, 1991 at 140, discloses the advantage of information visualization and/or providing a graphical display generally to enhance information retrieval from a database: "By letting the user see all of the information that is available, organized in a display related to the various factors of importance, we enable the user to pick and choose wisely, retrieving precisely the information appropriate to the need."

Information Retrieval and Directed Graphs/Matrices. One of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to directed graphs and/or mathematical theory relating to linear algebra and matrices. Below are several exemplary references teaching analysis using directed graphs, linear algebra, and/or matrices: Garner, 1967, Pinski, 1976, Thompson, 1989, Kommers, 1990, Burt, 1991, UCINET 1992, ENVISION, Golub, G., Van Loan, C.F., "*Matrix Computation*," (Johns Hopkins University Press) (1989).

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references with one or more of the references listed above because it was well known that relationships between objects, such as citations and hyperlinks, can be represented in graphs, which follows the findings of graph theory, and/or using matrices, following the practices of linear algebra. Garner, 1967 concluded that graph theory could be used for citation analysis. *Id.* at 37. Kommers, 1990 taught to "analyze hypertext structures by means of graph computation." *Id.* at 126. Accordingly, the use of graph theory to analyze linked documents, including hypertexts, was well known in the art. The nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, Salton & McGill, 1983, which discusses in depth vectors, matrices, and related linear algebra issues, urged combining techniques from different fields to enhance information retrieval. *See id*. at 431 ("Viable solutions to the information problem will eventually be found by combining results derived from these various disciplines.").

Information Retrieval and Hypertext/Internet/WWW. One of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to hypertext (which implicitly includes hypermedia, and can run on the Internet or its hypertext aspect, which is known as the World Wide Web or WWW), and the Internet and all public and prior uses of hypertext and the Internet. Below are several exemplary references that disclose information retrieval in hypertext systems: Frisse, 1988; Frisse/Cousins, 1989; Thompson, 1989; Nielsen, 1990b; Kommers, 1990; Berk, 1991; and ENVISION.

It was well-known in the prior art to apply information retrieval methods to hypertext databases. Furthermore, it was known that information about links can be used to search and

identify documents in a hypertext system. *See, e.g.*, Conklin, 1987 at 35, Consens, 1989, Nielsen, 1990b at 139-140; Thompson, 1989 at 143. For at least the above reasons, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references in the fields of information retrieval and hypertext, especially those references that disclosed the use of direct and/or indirect links between documents.

In additional to the references disclosed above, the following references provide further examples of motivations to combine the above prior art, as well as demonstrate the ordinary level of skill in the art: Rizk, A., Streitz, N, and Andre, J., "Hypertext: Concepts, Systems and Applications," Proceedings of the First European Conference on Hypertext, Cambridge University Press (1990).

C. Contentions Under 35 U.S.C. § 112 Pursuant to P. R. 3-3(d)

The following contentions, made pursuant to P. R. 3-3(d), are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e) and the Orders of record in this matter to the extent appropriate in light of further investigation and discovery regarding the defenses, the Court's construction of the claims at issue, and/or the review and analysis of expert witnesses.

Defendants offer these contentions in response to SRA's Infringement Contentions and without prejudice to any position they may ultimately take as to any claim construction issues. To the extent the following contentions reflect constructions of claim limitations consistent with or implicit in SRA's Infringement Contentions, no inference is intended nor should any be drawn that Defendants agree with any claim construction implied by SRA's Infringement Contentions, and Defendants expressly reserve the right to contest such claim constructions.

Subject to the reservation of rights above, Defendants provide below an identification of asserted claims along with an identification of the specific limitations that are invalid pursuant to

35 U.S.C. § 112 ¶ 1 as lacking written description and/or enablement support and/or 35 U.S.C. § 112 ¶ 2 as indefinite.

1. Lack of Enablement

At least in view of the Plaintiff's apparent construction of the claims in its Infringement Contentions and its refusal to identify any enabling portions of the specification in response to Defendants' Common Interrogatory No 3,[1] Claims 26-42, 44, and 45 of the '352 Patent are invalid because the specification as filed does not enable the claimed methods. In particular, the patent disclosure would not enable a person of ordinary skill in the art to practice the methods as claimed, either as a whole and/or in view of specific elements (examples of which are given below).

For example, with respect to claims 26-40, the specification is not enabling at least for "creating a first numerical representation . . . based upon the object's direct relationship with other objects in the database," "analyzing the first numerical representation for indirect relationships existing between or among objects in the database," "generating a second numerical representation of each object based on the analysis of the first numerical representation," and "searching the objects using a computer and the stored second numerical representations."

For example, with respect to claim 28, the specification is not enabling at least for "wherein the step of searching comprises the steps of matrix searching of the second matrices."

For example, with respect to claims 29-31, the specification is not enabling at least for "examining the first numerical representation for patterns which indicate the indirect relationships."

[1] *See* Software Rights Archive, LLC's Objections and Responses to Defendants' First Set of Common Interrogatories (Nos. 1-9) at 8.

For example, with respect to claim 32, the specification is not enabling at least for "the step of weighing, wherein some indirect relationships are weighed more heavily than other indirect relationships."

For example, with respect to claim 33, the specification is not enabling at least for "wherein the step of analyzing the first numerical representations for indirect relationships further comprises: creating an interim vector representing each object," "calculating euclidian distances between interim vector representations of each object," and "creating proximity vectors representing the objects using the calculated euclidian distances."

For example, with respect to claim 35, the specification is not enabling at least for "wherein the objects are textual objects with paragraphs and the subsets are the paragraphs of the textual objects," "creating a subset numerical representation for each subset based upon the relationships between or among subsets," "analyzing the subset numerical representations," "clustering the subsets into sections," and "generating a section numerical representation for each section."

For example, with respect to claim 38, the specification is not enabling at least for "paradigm object."

For example, with respect to claim 39, the specification is not enabling at least for "pool-similarity searching" and "pool-importance searching."

For example, with respect to claim 40, the specification is not enabling at least for "paradigm pool," "pool importance," and "pool similarity."

For example, with respect to claims 41, 42, and 44, the specification is not enabling at least for "objects stored in a computer database," "extracting, comprising the steps of: labeling objects with a first numerical representation," "generating a second numerical representation for

each object based on each object's references to other objects," "patterning, comprising the step of creating a third numerical representation for each object using the second numerical representations," "wherein the third numerical representation for each object is determined from an examination of the second numerical representations for patterns that define indirect relations between or among objects," "weaving, comprising the steps of: calculating a fourth numerical representation for each object based on the euclidean distances between the third numerical representations," "determining a fifth numerical representation for each object by processing the fourth numerical representations through similarity processing," and "storing the fifth numerical representations in the computer database as the index for use in searching for objects in the database."

For example, with respect to claim 42, the specification is not enabling at least for "the step of clustering objects having similar characteristics."

For example, with respect to claim 44, the specification is not enabling at least for "a plurality of empirically defined patterns."

For example, with respect to claim 45, the specification is not enabling at least for "analyzing the index to identify a pool of objects," "interpreting the processed searched commands as a selection of an object," "identifying a group of objects that have a relationship to the selected object," "identifying objects that are referred to by the selected object," "identifying objects that refer to the selected object," "quantifying the relationship of the selected object to each object in the group of objects," and "ranking the objects in the group of objects in accordance to the quantified relationship to the selected object."

2. Lack of Written Description

At least in view of the Plaintiff's apparent construction of the claims in its Infringement Contentions and its refusal to identify any descriptive portions of the specification in response to

Defendants' Common Interrogatory No. 3, Claims 26-42, 44, and 45 are invalid because the specification as filed does not contain a written description of the claimed methods. In particular, the patent disclosure would not lead a person of ordinary skill in the art to understand that the named inventor had possession of the methods as claimed, either as a whole and/or in view of specific elements (examples of which are given below). *See e.g., LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336 (Fed. Cir. 2005).

For example, with respect to claims 26-40, the specification does not provide an adequate written description at least for "creating a first numerical representation . . . based upon the object's direct relationship with other objects in the database," "analyzing the first numerical representation for indirect relationships existing between or among objects in the database," "generating a second numerical representation of each object based on the analysis of the first numerical representation," and "searching the objects using a computer and the stored second numerical representations."

For example, with respect to claims 29-31, the specification does not provide an adequate written description at least for "examining the first numerical representation for patterns which indicate the indirect relationships."

For example, with respect to claim 32, the specification does not provide an adequate written description at least for "the step of weighing, wherein some indirect relationships are weighed more heavily than other indirect relationships."

For example, with respect to claim 33, the specification does not provide an adequate written description at least for "wherein the step of analyzing the first numerical representations for indirect relationships further comprises: creating an interim vector representing each object,"

"calculating euclidian distances between interim vector representations of each object," and "creating proximity vectors representing the objects using the calculated euclidian distances."

For example, with respect to claims 41, 42, and 44 the specification does not provide an adequate written description at least for "generating a second numerical representation for each object based on each object's references to other objects," "patterning, comprising the step of creating a third numerical representation for each object using the second numerical representations," "wherein the third numerical representation for each object is determined from an examination of the second numerical representations for patterns that define indirect relations between or among objects," "weaving, comprising the steps of: calculating a fourth numerical representation for each object based on the euclidean distances between the third numerical representations," "determining a fifth numerical representation for each object by processing the fourth numerical representations through similarity processing," and "storing the fifth numerical representations in the computer database as the index for use in searching for objects in the database."

For example, with respect to claim 42, the specification does not provide an adequate written description at least for "the step of clustering objects having similar characteristics."

For example, with respect to claim 44, the specification does not provide an adequate written description at least for "a plurality of empirically defined patterns."

For example, with respect to claim 45, the specification does not provide an adequate written description at least for "analyzing the index to identify a pool of objects," "interpreting the processed searched commands as a selection of an object," "identifying a group of objects that have a relationship to the selected object," "identifying objects that are referred to by the selected object," "identifying objects that refer to the selected object," "quantifying the

relationship of the selected object to each object in the group of objects," and "ranking the objects in the group of objects in accordance to the quantified relationship to the selected object."

3. Indefiniteness

Depending on SRA's construction of claims 26-42, 44, and 45 of the '352 Patent, one or more of limitations of these claims may be indefinite under 35 U.S.C. § 112(2). As noted above, SRA's Infringement Contentions are so vague (*e.g.*, as to Yahoo!) as lend little to no insight into SRA's position as to their meaning and scope. Defendants reserve the right to supplement these contentions to identify specific terms that are indefinite under Section 112(2) if SRA clarifies its positions.

4. Absence of Patentable Subject Matter

Although not required by P. R. 3-3, the asserted claims of the '352 Patent are invalid because they do not constitute patentable subject matter under 35 U.S.C. § 101. *See, e.g.*, *Diamond v. Diehr*, 450 U.S. 17, (1981); *Gottschalk v. Benson*, 409 U.S. 63, (1972); *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). For example, the asserted claims are not tied to a particular machine or apparatus, and they do not transform a particular article into a different state or thing.

IV. INVALIDITY CONTENTIONS CONCERNING U.S. PATENT NO. 5,832,494

A. Priority

The asserted claims of the '494 Patent are not entitled to a priority date earlier than May 17, 1996. As noted above, the patent examiner has already determined that the claims of the '494 Patent are not entitled to a priority date earlier than May 17, 1996 (*see, e.g.*, Notice of Allowability, Paper No. 7 at 3 in the '494 prosecution history; EGG_0012228) and likewise with respect to the claims of the '571 Patent (*see, e.g.*, Office Action dated July 19, 2000, Paper No. 14 at 3 in the '571 prosecution history, EGG_0013724). Moreover, in its response to

Defendants' first common Interrogatory No. 3, SRA declined to identify with specificity each passage in which each claim element is described in any earlier filed application.

B. Disclosure of Invalidity Due to Anticipation Pursuant to P. R. 3-3(b) and (c)

In accordance with P. R. 3-3(b) and (c), prior art references anticipating some or all of the asserted claims are listed in the tables below. The charts in Exhibits D-E identify specific examples of where each limitation of the anticipated claims is found in that reference, either expressly, implicitly in the larger context of the passage, or inherently as understood by a person having ordinary skill in the art.

The following patents and publications are prior art under at least 35 U.S.C. §§ 102(a), (b), (e), and/or (g).

Table 6: Patents and Printed Publications Anticipating the Asserted Claims of the '494 Patent

Exhibit D Chart	Prior Art
Ex D-1	Salton, 1963
Ex D-2	Garner, 1967
Ex D-3	Salton, 1968
Ex D-4	Goffman, 1969
Ex D-5	Salton, 1970
Ex D-6	Salton, 1971
Ex D-7	Schiminovich, 1971
Ex D-8	Bichteler & Parsons, 1974
Ex D-9	Shimko, 1974
Ex D-10	Chen, 1992
Ex D-11	Pinski, 1976
Ex D-12	Bichteler & Eaton, 1977
Ex D-13	Garfield, 1979
Ex D-14	Tapper, 1982
Ex D-15	Kochtanek, 1982
Ex D-16	Fox/Smart, 1983
Ex D-17	Fox Thesis, 1983
Ex D-18	Fox Collections, 1983
Ex D-19	Salton and McGill, 1983
Ex D-20	Fox Agriculture, 1984
Ex D-21	Fox, 1985
Ex D-22	Belew, 1986

Exhibit D Chart	Prior Art
Ex D-25	Croft, Lucia & Cohen, 1988
Ex D-26	Armstrong, 1988
Ex D-27	Frisse, 1988
Ex D-28	Salton, 1988
Ex D-29	Fox, 1988
Ex D-30	Berners-Lee, 1989
Ex D-31	Croft & Turtle, 1989
Ex D-32	Frisse/Cousins, 1989
Ex D-33	Lucarella, 1990
Ex D-34	Thompson, 1989
Ex D-35	Rose, 1989
Ex D-36	Kommers, 1990
Ex D-38	Nielsen, 1990
Ex D-39	Nielsen, 1990b
Ex D-40	Shepherd, 1990
Ex D-41	Berk, 1991
Ex D-42	Burt, 1991
Ex D-43	Dunlop, 1991
Ex D-44	Gelbart, 1991
Ex D-45	Rada, 1991
Ex D-46	Rose, 1991
Ex D-47	Shaw Part I, 1991
Ex D-48	Shaw Part II, 1991
Ex D-49	Turtle & Croft, 1991
Ex D-50	Turtle, 1991
Ex D-51	Alain, 1992
Ex D-52	Botafogo, 1992
Ex D-53	Chen/Thesis, 1992
Ex D-54	Frei & Stieger, 1992
Ex D-55	Guinan, 1992
Ex D-56	UCINET, 1992
Ex D-57	Betrabet Thesis, 1993
Ex D-58	Betrabet, 1993
Ex D-59	Brunei, 1993
Ex D-60	Croft, 1993
Ex D-61	Fox Envision, 1993
Ex D-62	Conrad & Utt, 1994
Ex D-63	DeBra, 1994
Ex D-64	Herzner, 1994
Ex D-65	McKee, 1994
Ex D-66	Pinkerton, 1994
Ex D-67	LA Times
Ex D-68	Frei & Stieger, 1995
Ex D-69	March 21 Press Release

Exhibit D Chart	Prior Art
Ex F-7	April 24 Press Release
Ex D-71	NetCarta, 1996
Ex D-72	Pirolli, 1996
Ex D-73	Gansner US 4,953,106
Ex D-74	Kaplan US 5,446,891
Ex D-75	Mauldin US 5748954
Ex D-76	Shoham U.S. Pat. No. 5,855,015
Ex D-77	Doyle US 5,838,906
Ex D-78	Weiss, 1996
Ex D-79	France, 1995

The asserted claims of the ’494 Patent are invalid for public use and/or offers for sale of products and services that anticipate such claims under 35 U.S.C. § 102(a)(b) and/or the purported invention of the claims was made in this country by another inventor who had not abandoned, suppressed, or concealed it under 35 U.S.C. § 102(g). The following description and events are provided on information and belief and are supported by the information and documents that will be produced by February 13, 2009.

Table 7: Public Use/Prior Sale References Anticipating the Asserted Claims of the ’494 Patent

Exhibit E Chart	Prior Art
(*see* Ex D-71)	CyberPilot
Ex E-1	“V-Search”
Ex E-2	ENVISION
Ex E-3	SMART
Ex E-4	INTERMEDIA
Ex E-5	TIP
(*see* Ex D-56)	UCINET
N/A	Lycos[2]

V-Search. “V-Search” was disclosed to the public on or before March 29, 1995 and was in public use for more than one year prior to May 17, 1996, the priority date for the ’494 Patent. *See, e.g.,* Kaplan, LA Times, March 29,1995; Libertech March 21, 1995 Press Release; Libertech

[2] *See, e.g.*, Chart for Mauldin US 5748954 and related electronic information.

April 24, 1995 Press Release; STI_0011254-56; EGG_0009554-93; EGG_0004956-99 at EGG_0004960. Plaintiff alleges that V-Search meets one or more limitations of claims 1-3, 7-9, 12-15, 18-21, 23-25, 31-33 of the '494 Patent. *See* Plaintiff's Disclosure of Asserted Claims and Infringement Contentions at 12. Defendants reserve the right to contest Plaintiff's allegation that V-Search meets one or more limitations of the asserted claims of the '494 Patent. Plaintiff has refused to identify how V-Search meets the specific limitations of the claims of the '494 Patent. *See* Software Rights Archive, LLC's Objections and Responses to Defendants' First Set of Common Interrogatories (Nos. 1-9) at 5.

Defendants' discovery into V-Search is only just beginning, and Defendants thus reserve the right to supplement the attached charts identifying how V-Search meets limitations of the claims of the '494 Patent after discovery is complete. To the extent that V-Search embodies one or more elements of any of the claims of the '494 Patent, the disclosure and public use of V-Search more than one year prior to the '494 Patent's filing renders each such claim of the '494 Patent anticipated and/or obvious or otherwise invalid, either alone or in combination with the other prior art disclosed herein.

C. Disclosure of Invalidity Due to Obviousness Pursuant to P. R. 3-3(b) and (c)

The asserted claims of the '494 Patent are invalid as obvious under 35 U.S.C. § 103.

1. Obviousness Combinations

Each prior art reference disclosed in the preceding sections (*see* § IV.B), either alone or in combination with other prior art, also renders the asserted claims invalid as obvious. Furthermore, Defendants identify the following additional prior art references that either alone or in combination with other prior art (including any of the above anticipatory prior art) renders the asserted claims invalid as obvious under 35 U.S.C. § 103:

- Conklin, 1987 (*see e.g.*, Ex D-23).

- Conklin, 1988 (*see e.g.*, Ex D-24).
- Pitkow, 1994 (*see, e.g.*, Ex D-80).
- Seeley, J., "*The New of Reciprocal Influence*," Can. Jour. Psych. 234-241 (1949).
- Katz, L., "*A New Status Index Derived From Sociometric Analysis*," Psychometrika, Vol. 18, No. 1 pp. 39-43 (1953).
- Bar-Hillel, Y., "*A Logician's Reaction to Recent Theorizing on Information Search Systems*," American Documentation 8(2): 103-113 (1957).
- Harary, F., Norman, R.Z., Cartwright, D, "*Structural Models: An Introduction to the Theory of Directed Graph*," John Wiley & Sons, Inc., (1965), (*see, e.g.*, Preface, Ch. 1 (Digraphs and Structures), Ch. 5 (Digraphs and Matrices), and Ch. 14 (Networks)).
- Bell Laboratories, "S - A Language for Data Analysis" (1981).
- Hubbell, C., "*An Input-Output Approach to Clique Identification*," (1965).
- Jardine, N., van Rijsbergen, C.J., "*The Use of Hierarchical Clustering in Information Retrieval*," (1971).
- Salton, G., Bergmark, D., "*A Citation Study of the Computer Science Literature*," IEEE Trans on Professional Communication 22(3):146-158 (also published as TR 79-364) (1979).
- van Rijsbergen, C.J., "*Information Retrieval*," (1979).
- Jain, A., Dubes, R., "*Algorithms for Clustering Data*," (1988).
- Salton, G., Buckley, C., "*On the Use of Spreading Activation Methods in Automatic Information Retrieval*," (Proc. 11th SIGIR, pp. 147-160, also published as TR 88-907) (April 1988).

- Pao, M., Worthen, D., "*Retrieval Effectiveness by Semantic and Citation Searching*," J. Am. Society Info. Sci. 40(4):226-235 (1989).
- Golub, G., Van Loan, C.F., "*Matrix Computation*," (Johns Hopkins University Press) (1989).
- Consens, M.P. and Mendelzon, A.O., "*Expressing Structural Hypertext Queries in GraphLog*," Hypertext '89 Proceedings, pp. 269-292 (1989).
- Kaufman, L., Rousseeuw, P. "*Finding Groups in Data - An Introduction to Cluster Analysis*," (1990).
- Korfhage, "*To See, or Not to See – is That the Query*," Proceedings of the 14th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 134 – 141, (1991).
- Agosti, M., Gradenigo, G., Marchetti, P., "*A Hypertext Environment for Interacting With Large Databases*," (IP&M 28:371-387) (1992).
- Agosti, M., Marchetti, P., "*User Navigation in the IRS Conceptual Structure Through a Semantic Association Function*," (The Computer Journal 35:194-199) (1992).
- Li, T., Chiu, V., Gey, F. "*X-Window Interface to SMART, an Advanced Text Retrieval System*," SIGIR Forum, pp. 5-16 (1992).
- Salton, G., Allan, J., Buckley, C., "*Approaches to Passage Retrieval in Full Text Information Systems*," (Proc. 16th SIGIR Conf.) (1993).
- Hearst, M., Plaunt, C., "*Subtopic Structuring for Full-Length Document Access*," (Proc. 16th SIGIR) (1993).

- Salton, G., Allan, J., Buckley, C., Singhal, A., "*Automatic, Theme Generation, and Summarization of Machine-Readable Texts,*" (Science, 264:1421-1426) (1994).
- Wood, A., Drew, N., Beale, R., Hendley, B., "*HyperSpace: Web Browsing with Visualisation,*" (Proceedings from The Third International World-Wide Web Conference) (April 10-14, 1995).
- Harary, F., Norman, R.Z., Cartwright, D, "*Structural Models: An Introduction to the Theory of Directed Graph,*" John Wiley & Sons, Inc., (1965) (*see, e.g.*, Preface, Ch. 1 (Digraphs and Structures), Ch. 5 (Digraphs and Matrices), and Ch. 14 (Networks)).
- Korfhage, "*To See, or Not to See – is That the Query,*" Proceedings of the 14th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 134 – 141, (1991).
- Consens, M.P. and Mendelzon, A.O., "*Expressing Structural Hypertext Queries in GraphLog,*" Hypertext '89 Proceedings, pp. 269-292 (1989).
- "*Documents relationships at a Glance," Electronic Documents,*" Vol. 3, p. 3 (1994)
- PCT WO 95/00896 (published January 5, 1995).
- References and prior art cited above as anticipating and/or rendering obvious the '352 Patent.

In addition, Defendants incorporate by reference each and every prior art reference of record in the prosecution of the patents-in-suit and related applications, including the statements

made therein by the applicant and the examiner, the prior art discussed in the specification, and any other statements found in the intrinsic record.

In particular, each prior art reference may be combined with (1) information known to persons skilled in the art at the time of the alleged invention, (2) any of the other anticipatory prior art references, (3) any statements in the intrinsic record of patents-in-suit and related applications, and/or (4) any of the additional prior art identified above. To the extent that SRA contends that any of the anticipatory prior art fails to disclose one or more limitations of the asserted claims, Defendants reserve the right to identify other prior art references that, when combined with the anticipatory prior art, would render the claims obvious despite the allegedly missing limitation. Defendants contentions are made subject to its reservations above and based on Defendants' present understanding of the asserted claims of the '494 Patent and the apparent constructions in SRA's Infringement Contentions.

Exhibit F includes claim charts for the asserted claims of the '494 Patent using specific and exemplary combinations of references:

Table 8: References Rendering Obvious Asserted Claims of the '494 Patent

Exhibit F Chart	Prior Art
Chart F-1	103 Chart
Chart F-2	Nielsen, 1990b, Frisse, 1988 and prior public use of the Internet and references regarding same
Chart F-3	Salton, 1963, Pinski, 1976 and prior public use of the Internet and references regarding same
Chart F-4	Salton & McGill, 1983, Tapper, 1982 and prior public use of the Internet and references regarding same
Chart F-5	Fox Thesis, 1983, Berk, 1991 and prior public use of the Internet and references regarding same

Chart F-6	Belew, 1986 and Rose, 1991 and prior public use of the Internet and references regarding same
Chart F-7	Libertech References

In addition to the exemplary combinations of prior art in Exhibit F, Defendants reserve the right to rely on any other combination of any prior art references disclosed herein.

2. Motivation to Combine

The United States Supreme Court recently clarified the standard for what types of inventions are patentable. *See KSR*, 127 S. Ct. 1727 (2007). In particular, the Supreme Court emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *See id.* at 1732, 1738, 1742-1743, 1746. In that regard, a patent claim may be obvious if the combination of elements was obvious to try or there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent's claims. In addition, when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, 35 U.S.C. § 103 likely bars its patentability.

The '494 Patent is obvious because it simply uses known methods in the field of information retrieval to obtain predictable results. *See KSR*, 127 S. Ct. at 1742 (2007). For example, it was well-known to use information about the direct and indirect links between documents and data for information retrieval. The '494 Patent simply combines these and other known methods. Furthermore, there was a recognized need and market pressure to develop the methods disclosed therein for indexing, searching, and displaying data. *See, e.g.*, Fox Thesis, 1983 at 1 ("An important concern today is how people will be able to locate specific information out of the vast collections of data now in existence"); Salton & McGill, 1983 at 1 ("Most people

are faced with a need for information at some time or other"). Those in the field were motivated to develop effective methods of information retrieval for large hypertext databases. *See, e.g.*, Nielsen, 1990b, at 188-189. The early version of the Internet (W3) emphasized access to information ("The World-Wide Web (W3) initiative is a practical project to bring a global information universe into existence") as well as search and links ("both hypertext links and text search are important parts of the model"). Berners-Lee 1992 at 1, 7. Accordingly, the design needs and market pressures in the field provide ample reason to combine prior art elements. *See KSR*, 127 S. Ct. at 1742.

Moreover, a person of ordinary skill in the art had good reason to pursue the known options. *See id.* Indeed, a person skilled in the art would have been familiar with all the claim elements, including those that the patentee used to distinguish the prior art during prosecution. Application of those familiar elements for their primary or well-known purposes in a manner was well within the ordinary level of skill in the art. Accordingly, common sense and the knowledge of the prior art render the claims invalid under either 35 U.S.C. § 102 or § 103.

A person of ordinary skill would have been motivated to combine the above prior art based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. The identified prior art address the same or similar technical issues and suggest the same or similar solutions to those issues. Moreover, some of the prior art refers to or discusses other prior art, illustrating the close technical relationship among the prior art.

To the extent that SRA challenges a combination of prior art with respect to a particular element, Defendants reserve the right to supplement these contentions to further specify the motivation to combine the prior art. In this regard, Defendants may rely on cited or uncited

portions of the prior art, other documents including related materials, treatises, surveys, textbooks, theses, and expert testimony to establish or confirm that a person of ordinary skill in the art would have been motivated to modify or combine the prior art so as to render the claims invalid as obvious.

Information Retrieval. One of ordinary skill in the art would have been motivated to combine references relating to information retrieval for the reasons above, as well as the ones that follow. Examples of combinations of prior art references relating to information retrieval include: Salton & McGill, 1983 and Frisse, 1988; Salton, 1963 and Pinski, 1976; Tapper, 1982 and Burt, 1991; Fox Thesis, 1983 and Garner, 1967; Thompson, 1989 and Salton, 1968; and Belew 1987 and Rose 1989. These combinations are merely illustrative, as numerous other combinations as possible. These exemplary combinations should not be interpreted as indicating that any individual reference is not alone invalidating prior art under 35 U.S.C. §§ 102 and 103.

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references in the field of information retrieval, especially the references that used information about the direct and indirect relationships and links between documents. It was well known to evaluate the relationships between documents (*e.g.*, citations and links) and to use metrics of such relationships to search and identify relevant documents. For example, in 1963 a specialist in the field of information retrieval "suggested . . . that bibliographic citations may provide a simple means for obtaining associated documents to be incorporated in an automatic documentation system." Salton, 1963 at 440. Other publications also demonstrate that it was well-known to use information about links to index, search, and display data. *See, e.g.*, Tapper, 1982, at 139 ("[C]itation vectors appeared, in theory, to offer a useful supplement to full text matching systems for the retrieval of legal information, and to be much more promising than

word based vector systems."); Thompson, 1989, at 96 (noting that "[citation links] can be used directly to facilitate finding other documents"); Salton, 1968 at 379 ("A number of studies have been made to test whether similarities in the citation pattern of two or more papers in fact reflect similarities in the subject matter [50, 51]."); Salton & McGill, 1983 at 246 (observing the importance of relationships among data to "assess the importance of individual documents or of complete document collections, by assuming that citation frequencies reflect the influence of bibliographic items in a field of study."); Pinski, 1976 at 312 (using citations and "[a]n influence weighting methodology" to determine a "highly influential journal as opposed to an average publication in a peripheral journal.").

Second, the references themselves suggest their use in a variety of applications and combinations, thus further supporting a finding of obviousness. Salton & McGill, 1983 at 431 taught that "[v]iable solutions to the information problem will eventually be found by combining results derived from these various disciplines" and listed numerous disciplines including software engineering, information theory, linear algebra, and pattern recognition, and further it was known that graph theory was "applicable." Garner, 1967 at 4.

Third, the nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, as databases grew larger, "precision improvements have been noted in searches carried out with bibliographic [information]." Salton & McGill, 1983 at 247; *see also* Garner, 1967 at 5 ("It would be desirable to use large-scale, citation index files in machine language for searches involving manipulative techniques of interrogation."). Accordingly, it was well known in the art to take advantage of relationships among data for retrieval of that data.

For at least these reasons, one of ordinary skill in the art would have combined prior art references in the field of information retrieval with one another and with general knowledge in the field.

Information Retrieval and Information Display/Visualization. One of ordinary skill in the art would have been motivated to combine references relating to information retrieval with references teaching aspects of information display, information visualization, and user interfaces, for example any of the following: Conklin, 1987, Rose, 1989, Korfhage, 1991, Lin, 1991, Crouch, 1986, Thompson, 1989, Nielsen, 1990b, ENVISION, and Li et al. "X-Window Interface to SMART".

First, a person of ordinary skill in the art would have been motivated to combine such references listed above because it was well known to enhance computer results with graphical displays, and in particular to present search results using visualization approaches and/or graphical displays. *See, e.g.*, Lin, 1991 at 268 ("There is increasing interest in information visualization for information retrieval"); Salton, 1968 at 352 (describing "displays which can be used to obtain access to information in both digital and image form"); Li et al. at 7 (describing the advantages of a "friendly graphical interface"). Further, in the context of hypertext, it was well known that a suitable visualization and graphical display could increase its usability as a navigational aid. For example, Conklin, 1987, at 19 teaches that "[a] browser displays some or all of the hyperdocument as a graph, providing an important measure of contextual and spatial cues to supplement the user's model of which nodes he is viewing and how they are related to each and their neighbors in the graph," and so forth. Accordingly, the use of graphical displays of linked documents was well known in the art. *See also, e.g.*, Rose, 1989 at 143 (providing "interactive graphical interface" that "displays responses and their interconnections"); Korfhage,

1991 at 140 (providing information "in a graphical form that shows interrelations among the data."); Lin, 1991.

The nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, Korfhage, 1991 at 140, discloses the advantage of information visualization and/or providing a graphical display generally to enhance information retrieval from a database: "By letting the user see all of the information that is available, organized in a display related to the various factors of importance, we enable the user to pick and choose wisely, retrieving precisely the information appropriate to the need."

Information Retrieval and Directed Graphs/Matrices. One of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to directed graphs and/or mathematical theory relating to linear algebra and matrices. Below are several exemplary references teaching analysis using directed graphs, linear algebra, and/or matrices: Garner, 1967, Pinski, 1976, Thompson, 1989, Kommers, 1990, Burt, 1991, UCINET 1992, ENVISION, Golub, G., and Van Loan, C.F., "*Matrix Computation*," (Johns Hopkins University Press) (1989).

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references with one or more of the references listed above because it was well known that relationships between objects, such as citations and hyperlinks, can be represented in graphs, which follows the findings of graph theory, and/or using matrices, following the practices of linear algebra. Garner, 1967 concluded that graph theory could be used for citation analysis. *Id.* at 37. Kommers, 1990 taught to "analyze hypertext structures by means of graph computation." *Id.* at 126. Accordingly, the use of graph theory to analyze linked documents,

including hypertexts, was well known in the art. *See also* Furner, 1996 at 75, "The Representation and Comparison of Hypertext Structures Using Graphs" (applying "principles developed in the fields of graph theory"). The nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, Salton & McGill, 1983, which discusses in depth vectors, matrices, and related linear algebra issues, urged combining techniques from different fields to enhance information retrieval. *See id*. at 431 ("Viable solutions to the information problem will eventually be found by combining results derived from these various disciplines.").

Information Retrieval and Hypertext/Internet/WWW. One of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to hypertext, and the Internet and all public and prior uses of hypertext and the Internet. Below are several exemplary references that disclose features of hypertext and the Internet: Frisse, 1988, Thompson, 1989, Nielsen, 1990b, Berk, 1991, Kommers, 1990. In addition, with respect to the use of Hypertext and the Internet, such systems were well known in the art at the time of filing of the '494 Patent (as well as the time of filing of the '352 Patent).

Below are several exemplary combinations of such prior art references:

- Salton and McGill, 1983 and Berners-Lee, 1989;
- Salton, 1963, Pinski, 1976, and Berners-Lee, 1989;
- Fox Thesis, 1983, Tapper, 1982, and Berners-Lee, 1989;
- Frisse, 1988 and Berners-Lee, 1989;
- Turtle, 1991 and Pinkerton, 1994;
- Thompson, 1989, Nielsen, 1990b, and Krol, 1994; and

- Fox/SMART, 1983, Berners-Lee, 1989, Pinkerton, 1994.

The purpose of both hypertext and the Internet was to provide information to users. As noted above, the early version of the Internet (W3) emphasized access to information ("The World-Wide Web (W3) initiative is a practical project to bring a global information universe into existence") as well as search and links ("both hypertext links and text search are important parts of the model"). Berners-Lee 1992 at 1, 7.

For at least the following reasons, one of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to organizing information as hypertext and or on the Internet.

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references with one or more of the particular references listed above because the industry was clearly moving in the direction of providing information retrieval systems for hypertext, such as the Internet. Berners-Lee, 1992, taught that, "Merging the techniques of hypertext, information retrieval, and wide-area networking produces the W^3 model." *Id*. at 1. In addition, it was known to apply bibliographic information retrieval methods to hypertext. *See e.g.*, Korfhage, 1991, "*To See, or Not to See – Is That the Query*," ACM, Vol. 9, pp. 134-141 at 140 ("In addition to the usual bibliographic document sets, we are studying … legal databases, scientific data, medical information, hypertext, and geographic databases … [N]umerical valuations must be developed for the data. In many cases this can be done through an adaptation of the techniques used for normal bibliographic data, developing measures based on frequency counts and other characteristics of the data."); Hara, Y. et al., "*Implementing Hypertext Database Relationships through Aggregations and Exceptions*," Hypertext '91 Proceedings, pp. 75- 90 at 78, December 1991 (providing a citation hierarchy as a model of hypertext relationship

aggregation at 3.2). Accordingly, it was well known to apply information retrieval techniques, including in particular those developed for analysis of citations and other links, to the analysis of hypertext and the Internet.

Second, the references themselves suggest a variety of applications and combinations for information retrieval, thus further supporting a finding of obviousness. For example, with reference to hyperlinked web pages, U.S. Pat. No. 5,855,015 discloses that "a metric commonly used in the field of information retrieval may be used … to determine how interesting a particular resource will be to the user. Examples of such techniques are discussed in detail by Gerard Salton and Michael J. McGill, An Introduction to Modern Information Retrieval." '015 Patent at col. 9, l. 65- col. 10, l. 4. Likewise, Fox Envision, 1993, teaches "links among those documents become increasingly important to help with search and browsing…. We are beginning to see the emergence of wide area hypertext systems like the WorldWideWeb (WWW), that carry this concept forward into a distributed environment. Clearly, we must coordinate hypertext and hypermedia linking with the various approaches to search and retrieval." *Id.* at 482 (internal citations omitted). In addition, it was well known that some of the advantages of hypertext include "the ease of tracing references," "the ease of creating references," and "information structuring." Conklin, 1987 at 38. Furthermore, it was known that information about links can be used to search and identify documents in a hypertext system. *See, e.g.*, Conklin, 1987 at 35, Consens, 1989, Nielsen, 1990b at 139-140; Thompson, 1989 at 143.

Third, the nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, as the size of the Internet grew, search systems became necessary to enable users to find information. *See, e.g.*, McBryan, O, "GENVL and WWWW: Tools for Taming the

Web," May 1994 ("A fundamental problem with the World Wide Web is the enormous number of resources available and the difficult of locating and tracking everything."); LA Times ("'The Internet is a big, big play for us,' Kraus said. 'There is lots of information out there that needs to be searched and sorted.'" (Page D4)). Accordingly, it was known to apply information retrieval science to the Internet. Furthermore, as taught in the LA Times, it was known that systems that "us[e] relationships between documents to help find the ones that are useful" such as systems that "analyze[] the network of explicit links" should be used for searching the Internet.

Libertech Disclosures. One of ordinary skill in the art would have been motivated to combine one or more of the following references with one another (and/or with one or more of the other references identified herein for the reasons described above):

- Kaplan, LA Times;
- March 95 Libertech Press Release;
- April 95 Libertech Press Release;
- Infobase '95;
- '95 PCT; and
- Dec. 1994 Electronic Documents.

In addition, it was well known to search information stored on computers to return relevant information to users. For example, the LA Times article reported that, "'The Internet is a big, big play for us,' Kraus said. 'There is lots of information out there that needs to be searched and sorted.'" LA Times at D4. The LA Times article further teaches that systems that "us[e] relationships between documents to help find the ones that are useful," such as systems that "analyze[] the network of explicit links," should be used for searching the Internet. *Id*. Accordingly, one of ordinary skill in the art would have been motivated to combine prior art that

teaches analyzing relationships between documents and networks of explicit links to search the Internet and related digital information.

Furthermore, the listed references (*see, e.g.*, the March 1995 press release and the April 1995 press release) state that Libertech's technology (*e.g.*, technology disclosed and used by it at the Infobase Conference and published in the '896 PCT) could be used for searching hyperlinks.

D. Contentions Under 35 U.S.C. § 112 Pursuant to P. R. 3-3(d)

The following contentions, made pursuant to P. R. 3-3(d), are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e) and the Orders of record in this matter to the extent appropriate in light of further investigation and discovery regarding the defenses, the Court's construction of the claims at issue, and/or the review and analysis of expert witnesses.

Defendants offer these contentions in response to SRA's Infringement Contentions and without prejudice to any position they may ultimately take as to any claim construction issues. To the extent the following contentions reflect constructions of claim limitations consistent with or implicit in SRA's Infringement Contentions, no inference is intended nor should any be drawn that Defendants agree with any claim construction implied by SRA's Infringement Contentions, and Defendants expressly reserve the right to contest such claim constructions.

Subject to the reservation of rights above, Defendants provide below an identification of asserted claims along with an identification of the specific limitations that are invalid pursuant to 35 U.S.C. § 112 ¶ 1 as lacking written description and/or enablement support and/or 35 U.S.C. § 112 ¶ 2 as indefinite.

1. Lack of Enablement

At least in view of the Plaintiff's apparent construction of the claims in its Infringement Contentions and its refusal to identify any enabling portions of the specification in response to

Defendants' Common Interrogatory No 3, the asserted claims of the '494 Patent are invalid because the specification as filed does not enable the claimed methods. In particular, the patent disclosure would not enable a person of ordinary skill in the art to practice the methods as claimed, either as a whole and/or in view of specific elements (examples of which are given below).

For example, with respect to claims 1-3, 5, 7-11, the specification is not enabling at least for "selecting an node for analysis," "generating candidate cluster links for the selected node, wherein the step of generating comprises an analysis of one or more indirect relationships in the database," "deriving actual cluster links," and "identifying one or more nodes for display."

For example, with respect to claims 8-10, the specification is not enabling at least for "an independent application which can be executed in the background."

For example, with respect to claims 12 and 13, the specification is not enabling at least for "selecting an object to determine the proximity of other objects to the selected object," "generating a candidate cluster link set for the selected object, wherein the generating step includes an analysis of one or more indirect relationships," and "deriving an actual cluster link for the selected object using the generated candidate cluster link set," and, with respect to claim 13, the specification is not enabling at least for "recursively analyzing portions of the set of direct links for indirect links."

For example, with respect to claims 14-16, the specification is not enabling at least for "candidate cluster links," "initializing a set of candidate cluster links," "selecting the destination node of a path as the selected node to analyze," "retrieving the set of direct links from the selected node to any other node in the database," "determining the weight of the path using the retrieved direct links," and "repeating . . . for each path."

For example, with respect to claims 15-16, the specification is not enabling at least for "deriving the actual cluster links."

For example, with respect to claims 18-21, the specification is not enabling at least for "a first numerical representation of direct relationships," "generating a second numerical representation," "wherein the second numerical representation accounts for indirect relationships," and "identifying . . . wherein the stored numerical representation is used to identify objects."

For example, with respect to claim 19, the specification is not enabling at least for "analyzing the direct relationships expressed by the first numerical representation for indirect relationships involving the selected object" and "creating a second numerical representation of the direct and indirect relationships."

For example, with respect to claim 20, the specification is not enabling at least for "searching for objects in a database using the stored numerical representation, wherein direct and/or indirect relationships are searched."

For example, with respect to claims 23-25, 31 and, 32, the specification is not enabling at least for "allocating a weight to each link, wherein the weight signifies the strength of the relationship represented by the link relative to the strength of other relationships represented by other links."

For example, with respect to claim 24, the specification is not enabling at least for "searching generated links."

For example, with respect to claim 25, the specification is not enabling at least for "generating link sub-types" and "providing a comment to one or more link sub-types."

For example, with respect to claim 33, the specification is not enabling at least for "generating node identification based upon the assigned links, wherein node identifications are generated so that each link represents a relationship between two identified nodes" and "searching for node identifications using the stored links."

2. Lack of Written Description

At least in view of the Plaintiff's apparent construction of the claims in its Infringement Contentions and its refusal to identify any descriptive portions of the specification in response to Defendants' Common Interrogatory No 3, the asserted claims of the '494 Patent are invalid because the specification as filed does not contain a written description of the claimed methods. In particular, the patent disclosure would not lead a person of ordinary skill in the art to understand that the named inventors had possession of the methods as claimed, either as a whole and/or in view of specific elements (examples of which are given below). *See, e.g., LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336 (Fed. Cir. 2005).

For example, with respect to claims 1-3, 5, 7-11, the specification does not provide an adequate written description at least for "selecting an node for analysis," "generating candidate cluster links for the selected node, wherein the step of generating comprises an analysis of one or more indirect relationships in the database," "deriving actual cluster links," and "identifying one or more nodes for display."

For example, with respect to claims 12 and 13, the specification does not provide an adequate written description at least for "selecting an object to determine the proximity of other objects to the selected object," "generating a candidate cluster link set," "analysis of one or more indirect relationships," "deriving an actual cluster link for the selected object using the generated candidate cluster link set," and, with respect to claim 13, the specification does not provide an

adequate written description at least for “recursively analyzing portions of the set of direct links for indirect links.”

For example, with respect to claims 14-16, the specification does not provide an adequate written description at least for “candidate cluster links,” “initializing a set of candidate cluster links,” “selecting the destination node of a path as the selected node to analyze,” “retrieving the set of direct links from the selected node to any other node in the database,” “determining the weight of the path using the retrieved direct links,” and “repeating . . . for each path.”

For example, with respect to claims 15-16, the specification does not provide an adequate written description at least for “deriving the actual cluster links.”

For example, with respect to claim 16, the specification does not provide an adequate written description for “choosing the top rated candidate cluster links.”

For example, with respect to claims 18-21, the specification does not provide an adequate written description at least for “a first numerical representation of direct relationships,” “generating a second numerical representation,” “wherein the second numerical representation accounts for indirect relationships,” and “identifying . . . wherein the stored numerical representation is used to identify objects.”

For example, with respect to claim 19, the specification does not provide an adequate written description at least for “analyzing the direct relationships expressed by the first numerical representation for indirect relationships involving the selected object,” and “creating a second numerical representation of the direct and indirect relationships involving the selected object.”

For example, with respect to claim 20, the specification does not provide an adequate written description at least for “searching for objects.”

For example, with respect to claims 23-25, 31 and, 32, the specification does not provide an adequate written description at least for "allocating a weight to each link, wherein the weight signifies the strength of the relationship represented by the link relative to the strength of other relationships represented by other links."

For example, with respect to claim 24, the specification does not provide an adequate written description at least for "searching generated links."

For example, with respect to claim 33, the specification does not provide an adequate written description at least for "generating node identification based upon the assigned links, wherein node identifications are generated so that each link represents a relationship between two identified nodes" and "searching for node identifications using the stored links."

3. Indefiniteness

Depending on SRA's construction of claims 1-3, 5, 7-16, 18-21, 23-25, 31-33 of the '494 Patent, one or more of limitations of these claims may be indefinite under 35 U.S.C. § 112(2). As noted above, SRA's Infringement Contentions are so vague (*e.g.*, as to Yahoo!) as lend little to no insight into SRA's positions as to their meaning and scope. Defendants reserve the right to supplement these contentions to identify specific terms that are indefinite under Section 112(2) if SRA clarifies its positions.

Pending greater clarity as to SRA's positions on infringement and claim construction, Defendants note that certain asserted claims of the '494 Patent are invalid as indefinite. For example:

- Claim 7 fails to satisfy the requirements of 35 U.S.C. § 112(2) because the term "the desired node" lacks an antecedent basis and therefore is indefinite.
- Claims 14-16 fail to satisfy the requirements of 35 U.S.C. § 112(2) because the term "for each path" is indefinite.

- Claims 23 and 24 fail to satisfy the requirements of 35 U.S.C. § 112(2) because it is not possible to ascertain what "node identification" is the object of the term "displaying a node identification."
- Claim 33 fails to satisfy the requirements of 35 U.S.C. § 112(2) because the following phrase is indefinite: the steps of "assigning links to represent relationships in the database; generating node identifications based upon the assigned links, wherein node identifications are generated so that each link represents a relationship between two identified nodes."

4. Absence of Patentable Subject Matter

Although not required by P. R. 3-3, the asserted claims of the '494 Patent are invalid because they do not constitute patentable subject matter under 35 U.S.C. § 101. *See, e.g.*, *Diamond v. Diehr*, 450 U.S. 17, (1981); *Gottschalk v. Benson*, 409 U.S. 63, (1972); *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). For example, the asserted claims are not tied to a particular machine or apparatus, and they do not transform a particular article into a different state or thing.

V. INVALIDITY CONTENTIONS CONCERNING U.S. PATENT NO. 6,233,571

A. Priority

The asserted claims of the '571 Patent are not entitled to a priority date earlier than May 17, 1996. As noted above, the patent examiner has already determined that the claims of the '571 Patent are not entitled to a priority date earlier than May 17, 1996 (*see, e.g.*, Office Action dated July 19, 2000, Paper No. 14 at 3 in the '571 prosecution history, EGG_0013724). Moreover, in its response to Defendants' Common Interrogatory No. 3, SRA declined to identify with specificity each passage in which each claim element is described in any earlier filed application.

B. Disclosure of Invalidity Due to Anticipation Pursuant to P. R. 3-3(b) and (c)

In accordance with P. R. 3-3(b) and (c), prior art references anticipating some or all of the asserted claims are listed in the tables below. The charts in Exhibits G-H identify specific examples of where each limitation of the anticipated claims is found in that reference, either expressly, implicitly in the larger context of the passage, or inherently as understood by a person having ordinary skill in the art.

The following patents and publications are prior art under at least 35 U.S.C. §§ 102(a), (b), (e), and/or (g).

Table 9: Patents and Printed Publications Anticipating the Asserted Claims of the '571 Patent

Ex G-1	Garner, 1967
Ex G-2	Salton, 1968
Ex G-3	Goffman, 1969
Ex G-4	Salton, 1970
Ex G-5	Salton, 1971
Ex G-6	Schiminovich, 1971
Ex G-7	Shimko, 1974
Ex G-8	Bichteler, 1974
Ex G-9	Pinski, 1976
Ex G-10	Tapper, 1982
Ex G-11	Kochtanek, 1982
Ex G-12	Fox/Smart, 1983
Ex G-13	Fox Thesis, 1983
Ex G-14	Fox Collections, 1983
Ex G-15	Salton and McGill, 1983
Ex G-16	Fox Agriculture, 1984
Ex G-17	Fox, 1985
Ex G-18	Belew, 1986
Ex G-19	Conklin, 1987
Ex G-20	Conklin, 1988
Ex G-21	Croft, Lucia & Cohen, 1988
Ex G-22	Frisse, 1988
Ex G-23	Salton, 1988

Ex G-24	Fox, 1988
Ex G-25	Berners-Lee, 1989
Ex G-26	Croft & Turtle, 1989
Ex G-27	Frisse/Cousins, 1989
Ex G-28	Thompson, 1989
Ex G-29	Rose, 1989
Ex G-30	Kommers, 1990
Ex G-31	Lucarella, 1990
Ex G-32	Nielsen, 1990
Ex G-33	Nielsen, 1990b
Ex G-34	Shepherd, 1990
Ex G-35	Turtle, 1991
Ex G-36	Turtle & Croft, 1991
Ex G-37	Brunei, 1993
Ex G-38	Gelbart, 1991
Ex G-39	Berk, 1991
Ex G-40	Dunlop, 1991
Ex G-41	Rada, 1991
Ex G-42	Rose, 1991
Ex G-43	Frei & Stieger, 1992
Ex G-44	Botafogo, 1992
Ex G-45	Alain, 1992
Ex G-46	Guinan, 1992
Ex G-47	Chen/Thesis, 1992
Ex G-48	Chen, 1992
Ex G-49	UCINET, 1992
Ex G-50	Fox Envision, 1993
Ex G-51	Croft, 1993
Ex G-52	Betrabet, 1993
Ex G-53	Pinkerton, 1994
Ex G-54	Betrabet Thesis, 1993
Ex G-55	Herzner, 1994
Ex G-56	McKee, 1994
Ex G-57	Krol, 1994
Ex G-58	Frei & Stieger, 1995
Ex G-59	NetCarta, 1996
Ex G-60	LA Times
Ex G-61	March 21 Press Release
Ex I-7	April 24 Press Release

Ex G-62	Pirolli, 1996
Ex G-63	Shoham US 5855015
Ex G-64	Kaplan US 5446891
Ex G-65	Bichteler & Eaton, 1977
Ex G-66	Conrad & Utt, 1994
Ex G-67	Mauldin US 5748954
Ex G-68	Chen Thesis, 1992
Ex G-76	Weiss, 1996
N/A	Lin, 1991

The following systems are prior art under at least 35 U.S.C. §§ 102(a), (b) and/or (g). Although Defendants' investigation continues, information available to date indicates that each system was (1) known or used in this country before the alleged invention of the claimed subject matter of the asserted claims, (2) was in public use and/or on sale in this country more than one year before the filing date of the patent, and/or (3) was invented by another who did not abandon, suppress, or conceal, before the alleged invention of the claimed subject matter of the asserted claims. The following description and events are provided on information and belief, and are supported by the information and documents that will be produced by February 13, 2009.

Table 10: Public Use/Prior Sale References Anticipating the Asserted Claims of the '571 Patent

Exhibit H Chart	Prior Art
(*see* Ex G-59)	Cyberpilot
Ex H-1	V-Search
Ex H-2	ENVISION
Ex H-3	Intermedia

V-Search. "V-Search" was disclosed to the public on or about March 29, 1995 and was in public use for more than one year prior to May 17, 1996, the priority date for the '571 Patent. *See*, *e.g.*, Kaplan, LA Times, 1995; Libertech March 21, 1995 Press Release; Libertech April 24, 1995 Press Release; EGG_0009554-93; EGG_0004956-99 at EGG_ 0004960; STI_0011254-56. Plaintiff alleges that V-Search meets one or more limitations of claims 5-7, 9-11 and 21-22 of the

’571 Patent. *See* Plaintiff’s Disclosure of Asserted Claims and Infringement Contentions at 12. Defendants reserve the right to contest Plaintiff’s allegation that V-Search meets one or more limitations of the asserted claims of the ’571 Patent. Plaintiff has refused to identify how V-Search meets the specific limitations of the claims of the ’571 Patent. *See* Software Rights Archive, LLC’s Objections and Responses to Defendants’ First Set of Common Interrogatories (Nos. 1-9) at 5.

Defendants’ discovery into V-Search is only just beginning, and Defendants thus reserve the right to supplement the attached charts identifying how V-Search meets limitations of the claims of the ’571 Patent after discovery is complete. To the extent that V-Search embodies one or more elements of any of the claims of the ’571 Patent, the disclosure, public use, and possible offer for sale of V-Search more than one year prior to the ’571 Patent’s filing renders each such claims of the ’571 Patent anticipated and/or obvious or otherwise invalid, alone or in combination with the other prior art disclosed herein.

C. Disclosure of Invalidity Due to Obviousness Pursuant to P. R. 3-3(b) and (c)

The asserted claims of the ’571 Patent are invalid as obvious under 35 U.S.C. § 103.

1. Obviousness Combinations

Each prior art reference disclosed in the preceding sections (*see* § V.B), either alone or in combination with other prior art, also renders the asserted claims invalid as obvious. Furthermore, Defendants identify the following additional prior art references that either alone or in combination with other prior art (including any of the above anticipatory prior art) renders the asserted claims invalid as obvious under 35 U.S.C. § 103:

- TIP (*see, e.g.*, Ex G-69).
- SMART (*see, e.g.*, Ex G-70).
- Garfield, 1979 (*see, e.g.*, Ex G-71).

- Armstrong, 1988 (*see, e.g.*, Ex G-72).
- Shaw Part I, 1991 (*see, e.g.*, Ex G-73).
- Shaw Part II, 1991 (*see, e.g.*, Ex G-74).
- France, 1995 (*see, e.g.*, Ex G-75).
- DeBra, 1994 (*see, e.g.*, Ex. G-81).
- Burt, 1991 (*see, e.g.*, Ex. G-77).
- Salton, 1975 (*see, e.g.*, Ex. G-78).
- Pitkow, 1994 (*see, e.g.*, Ex. G-79).
- U.S. Patent No. 5,838,906 (see e.g., Ex G-80).
- Seeley, J., "*The New of Reciprocal Influence*," Can. Jour. Psych. 234-241 (1949).
- Katz, L., "*A New Status Index Derived From Sociometric Analysis*," Psychometrika, Vol. 18, No. 1 pp. 39-43 (1953).
- Bar-Hillel, Y., "*A Logician's Reaction to Recent Theorizing on Information Search Systems*," American Documentation 8(2): 103-113 (1957).
- Harary, F., Norman, R.Z., Cartwright, D, "*Structural Models: An Introduction to the Theory of Directed Graph*," John Wiley & Sons, Inc., (1965), (*see, e.g.*, Preface, Ch. 1 (Digraphs and Structures), Ch. 5 (Digraphs and Matrices), and Ch. 14 (Networks)).
- Bell Laboratories, "S - A Language for Data Analysis" (1981).
- Hubbell, C., "*An Input-Output Approach to Clique Identification*," (1965).
- Jardine, N., van Rijsbergen, C.J., "*The Use of Hierarchical Clustering in Information Retrieval*," (1971).

- Salton, G., Bergmark, D., "*A Citation Study of the Computer Science Literature*," IEEE Trans on Professional Communication 22(3):146-158 (also published as TR 79-364) (1979).
- van Rijsbergen, C.J., "*Information Retrieval*," (1979).
- Jain, A., Dubes, R., "*Algorithms for Clustering Data*," (1988).
- Salton, G., Buckley, C., "*On the Use of Spreading Activation Methods in Automatic Information Retrieval*," (Proc. 11th SIGIR, pp. 147-160, also published as TR 88-907) (April 1988).
- Pao, M., Worthen, D., "*Retrieval Effectiveness by Semantic and Citation Searching*," J. Am. Society Info. Sci. 40(4):226-235 (1989).
- Golub, G., Van Loan, C.F., "*Matrix Computation*," (Johns Hopkins University Press) (1989).
- Consens, M.P. and Mendelzon, A.O., "*Expressing Structural Hypertext Queries in GraphLog*," Hypertext '89 Proceedings, pp. 269-292 (1989).
- Kaufman, L., Rousseeuw, P. "*Finding Groups in Data - An Introduction to Cluster Analysis*," (1990).
- Korfhage, "*To See, or Not to See – is That the Query*," Proceedings of the 14th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 134 – 141, (1991).
- Agosti, M., Gradenigo, G., Marchetti, P., "*A Hypertext Environment for Interacting With Large Databases*," (IP&M 28:371-387) (1992).

- Agosti, M., Marchetti, P., "*User Navigation in the IRS Conceptual Structure Through a Semantic Association Function*," (The Computer Journal 35:194-199) (1992).
- Li, T., Chiu, V., Gey, F. "*X-Window Interface to SMART, an Advanced Text Retrieval System*, " SIGIR Forum, pp. 5-16 (1992).
- Salton, G., Allan, J., Buckley, C., "*Approaches to Passage Retrieval in Full Text Information Systems*," (Proc. 16th SIGIR Conf.) (1993).
- Hearst, M., Plaunt, C., "*Subtopic Structuring for Full-Length Document Access*," (Proc. 16th SIGIR) (1993).
- Salton, G., Allan, J., Buckley, C., Singhal, A., "*Automatic, Theme Generation, and Summarization of Machine-Readable Texts*," (Science, 264:1421-1426) (1994).
- Wood, A., Drew, N., Beale, R., Hendley, B., "*HyperSpace: Web Browsing with Visualisation*," (Proceedings from The Third International World-Wide Web Conference) (April 10-14, 1995).
- Harary, F., Norman, R.Z., Cartwright, D, "*Structural Models: An Introduction to the Theory of Directed Graph*," John Wiley & Sons, Inc., (1965), (see, e.g., Preface, Ch. 1 (Digraphs and Structures), Ch. 5 (Digraphs and Matrices), and Ch. 14 (Networks)).
- Korfhage, "To *See, or Not to See – is That the Query*," Proceedings of the 14th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, pp. 134 – 141, (1991).

- Consens, M.P. and Mendelzon, A.O., "*Expressing Structural Hypertext Queries in GraphLog*," Hypertext '89 Proceedings, pp. 269-292 (1989).
- "*Documents relationships at a Glance*," Electronic Documents, Vol. 3, p. 3 (1994).
- PCT WO 95/00896 (published January 5, 1995).
- References and prior art cited above as anticipating and/or rendering obvious the '352 and '494 Patents and references cited on the face of the patents-in-suit.

In addition, Defendants incorporate by reference each and every prior art reference of record in the prosecution of the patents-in-suit and related applications, including the statements made therein by the applicant and the examiner, the prior art discussed in the specification, and any other statements found in the intrinsic record.

For example, during prosecution of the '571 Patent, the applicants contested that "it would have been obvious to one of ordinary skill in the art at the time of the invention to extend the hyperjump links of Vertelney to Internet connections because this would greatly enhance the utility of the system." *See* Amendment and Response at 10, Paper No. 12, June 6, 2000. However, the Examiner maintained the rejection, (*see* Office Action at 2-3, Paper No. 14, July 19, 2000), and the applicants failed to refute the Examiner's finding. *See* Amendment after Final Rejection, Paper No. 17 (amending claims to secure allowance). Accordingly, it was conceded that it would have been obvious at least to extend hyperjump links to Internet connections.

In particular, each prior art reference may be combined with (1) information known to persons skilled in the art at the time of the alleged invention, (2) any of the other anticipatory prior art references, (3) any statements in the intrinsic record of patents-in-suit and related applications, and/or (4) any of the additional prior art identified above. To the extent that SRA

contends that any of the anticipatory prior art fails to disclose one or more limitations of the asserted claims, Defendants reserve the right to identify other prior art references that, when combined with the anticipatory prior art, would render the claims obvious despite the allegedly missing limitation. Defendants contentions are made subject to its reservations above and based on Defendants' present understanding of the asserted claims of the '571 Patent and the apparent constructions in SRA's Infringement Contentions.

Exhibit I includes claim charts for the asserted claims of the '571 Patent using specific and exemplary combinations of references:

Table 11: References Rendering Obvious Asserted Claims of the '571 Patent

Exhibit I Chart	Prior Art
Ex I-1	103 Chart
Ex I-2	Nielsen, 1990b, Frisse, 1988 and prior public use of the Internet and references regarding same
Ex I-3	Salton, 1963, Pinski, 1976 and prior public use of the Internet and references regarding same
Ex I-4	Salton & McGill, 1983, Tapper, 1982 and prior public use of the Internet and references regarding same
Ex I-5	Fox Thesis, 1983, Berk, 1991 and prior public use of the Internet and references regarding same
Ex I-6	Nielsen, 1990b, Frisse, 1988 and prior public use of the Internet and references regarding same
Ex I-7	Libertech References

In addition to the exemplary combinations of prior art in Exhibit I, Defendants reserve the right to rely on any other combination of any prior art disclosed herein.

2. Motivation to Combine

The United States Supreme Court recently clarified the standard for what types of inventions are patentable. *See KSR*, 127 S. Ct. 1727 (2007). In particular, the Supreme Court emphasized that inventions arising from ordinary innovation, ordinary skill, or common sense should not be patentable. *See id.* at 1732, 1738, 1742-1743, 1746. In that regard, a patent claim may be obvious if the combination of elements was obvious to try or there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent's claims. In addition, when a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, 35 U.S.C. § 103 likely bars its patentability.

The '571 Patent is obvious because it simply uses known methods in the field of information retrieval to obtain predictable results. *See KSR*, 127 S. Ct. at 1742 (2007). For example, it was well-known to use information about the direct and indirect links between documents and data for information retrieval. The '571 Patent simply combines these and other known methods. Furthermore, there was a recognized need and market pressure to develop the methods disclosed therein for indexing, searching, and displaying data. *See, e.g.*, Fox Thesis, 1983 at 1 ("An important concern today is how people will be able to locate specific information out of the vast collections of data now in existence"); Salton & McGill, 1983 at 1 ("Most people are faced with a need for information at some time or other"). Those in the field were motivated to develop effective methods of information retrieval for large hypertext databases. *See, e.g.*, Nielsen, 1990b, at 188-189. The early version of the Internet (W3) emphasized access to information ("The World-Wide Web (W3) initiative is a practical project to bring a global information universe into existence") as well as search and links ("both hypertext links and text

search are important parts of the model"). Berners-Lee 1992 at 1, 7. Accordingly, the design needs and market pressures in the field provide ample reason to combine prior art elements. *See KSR*, 127 S. Ct. at 1742.

Moreover, a person of ordinary skill in the art had good reason to pursue the known options. *See id.* Indeed, a person skilled in the art would have been familiar with all the claim elements, including those that the patentee used to distinguish the prior art during prosecution. Application of those familiar elements for their primary or well-known purposes in a manner was well within the ordinary level of skill in the art. Accordingly, common sense and the knowledge of the prior art render the claims invalid under either 35 U.S.C. § 102 or § 103.

A person of ordinary skill would have been motivated to combine the above prior art based on the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. The identified prior art address the same or similar technical issues and suggest the same or similar solutions to those issues. Moreover, some of the prior art refers to or discusses other prior art, illustrating the close technical relationship among the prior art.

To the extent that SRA challenges a combination of prior art with respect to a particular element, Defendants reserve the right to supplement these contentions to further specify the motivation to combine the prior art. In this regard, Defendants may rely on cited or uncited portions of the prior art, other documents including related materials, treatises, surveys, textbooks, theses, and expert testimony to establish or confirm that a person of ordinary skill in the art would have been motivated to modify or combine the prior art so as to render the claims invalid as obvious.

Information Retrieval. One of ordinary skill in the art would have been motivated to combine references relating to information retrieval for the reasons above, as well as the ones that follow. Examples of combinations of prior art references relating to information retrieval include: Salton & McGill, 1983 and Frisse, 1988; Salton, 1963 and Pinski, 1976; Tapper, 1982 and Burt, 1991; Fox Thesis, 1983 and Garner, 1967; Thompson, 1989 and Salton, 1968; and Belew 1987 and Rose 1989. These combinations are merely illustrative, as numerous other combinations as possible. These exemplary combinations should not be interpreted as indicating that any individual reference is not alone invalidating prior art under 35 U.S.C. §§ 102 and 103.

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references in the field of information retrieval, especially the references that used information about the direct and indirect relationships and links between documents. It was well known to evaluate the relationships between documents (*e.g.*, citations and links) and to use metrics of such relationships to search and identify relevant documents. For example, in 1963 a specialist in the field of information retrieval "suggested . . . that bibliographic citations may provide a simple means for obtaining associated documents to be incorporated in an automatic documentation system." Salton, 1963 at 440. Other publications also demonstrate that it was well-known to use information about links to index, search, and display data. *See*, *e.g.*, Tapper, 1982, at 139 ("[C]itation vectors appeared, in theory, to offer a useful supplement to full text matching systems for the retrieval of legal information, and to be much more promising than word based vector systems."); Thompson, 1989, at 96 (noting that "[citation links] can be used directly to facilitate finding other documents"); Salton, 1968 at 379 ("A number of studies have been made to test whether similarities in the citation pattern of two or more papers in fact reflect similarities in the subject matter [50, 51]."); Salton & McGill, 1983 at 246 (observing the

importance of relationships among data to "assess the importance of individual documents or of complete document collections, by assuming that citation frequencies reflect the influence of bibliographic items in a field of study."); Pinski, 1976 at 312 (using citations and "[a]n influence weighting methodology" to determine a "highly influential journal as opposed to an average publication in a peripheral journal.").

Second, the references themselves suggest their use in a variety of applications and combinations, thus further supporting a finding of obviousness. Salton & McGill, 1983 at 431 taught that "[v]iable solutions to the information problem will eventually be found by combining results derived from these various disciplines" and listed numerous disciplines including software engineering, information theory, linear algebra, and pattern recognition, and further it was known that graph theory was "applicable." Garner, 1967 at 4.

Third, the nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, as databases grew larger, "precision improvements have been noted in searches carried out with bibliographic [information]." Salton & McGill, 1983 at 247; *see also* Garner, 1967 at 5 ("It would be desirable to use large-scale, citation index files in machine language for searches involving manipulative techniques of interrogation."). Accordingly, it was well known in the art to take advantage of relationships among data for retrieval of that data.

For at least these reasons, one of ordinary skill in the art would have combined prior art references in the field of information retrieval with one another and with general knowledge in the field.

Information Retrieval and Information Display/Visualization. One of ordinary skill in the art would have been motivated to combine references relating to information retrieval with

references teaching aspects of information display, information visualization, and user interfaces, for example any of the following: Conklin, 1987, Rose, 1989, Korfhage, 1991, Lin, 1991, Crouch, 1986, Thompson, 1989, Nielsen, 1990b, ENVISION, and Li et al. "X-Window Interface to SMART".

First, a person of ordinary skill in the art would have been motivated to combine such references listed above because it was well known to enhance computer results with graphical displays, and in particular to present search results using visualization approaches and/or graphical displays. *See, e.g.*, Lin, 1991 at 268 ("There is increasing interest in information visualization for information retrieval"); Salton, 1968 at 352 (describing "displays which can be used to obtain access to information in both digital and image form"); Li et al. at 7 (describing the advantages of a "friendly graphical interface"). Further, in the context of hypertext, it was well known that a suitable visualization and graphical display could increase its usability as a navigational aid. For example, Conklin, 1987, at 19 teaches that "[a] browser displays some or all of the hyperdocument as a graph, providing an important measure of contextual and spatial cues to supplement the user's model of which nodes he is viewing and how they are related to each and their neighbors in the graph," and so forth. Accordingly, the use of graphical displays of linked documents was well known in the art. *See also, e.g.*, Rose, 1989 at 143 (providing "interactive graphical interface" that "displays responses and their interconnections"); Korfhage, 1991 at 140 (providing information "in a graphical form that shows interrelations among the data."); Lin, 1991.

The nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, Korfhage, 1991 at 140, discloses the advantage of information visualization and/or

providing a graphical display generally to enhance information retrieval from a database: “By letting the user see all of the information that is available, organized in a display related to the various factors of importance, we enable the user to pick and choose wisely, retrieving precisely the information appropriate to the need.”

Information Retrieval and Directed Graphs/Matrices. One of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to directed graphs and/or mathematical theory relating to linear algebra and matrices. Below are several exemplary references teaching analysis using directed graphs, linear algebra and/or matrices: Garner, 1967, Pinski, 1976, Thompson, 1989, Kommers, 1990, Burt, 1991, UCINET 1992, ENVISION, and Golub, G., Van Loan, C.F., “*Matrix Computation*,” (Johns Hopkins University Press) (1989).

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references with one or more of the references listed above because it was well known that relationships between objects, such as citations and hyperlinks, can be represented in graphs, which follows the findings of graph theory, and/or using matrices, following the practices of linear algebra. Garner, 1967 concluded that graph theory could be used for citation analysis. *Id.* at 37. Kommers, 1990 taught to “analyze hypertext structures by means of graph computation.” *Id.* at 126. Accordingly, the use of graph theory to analyze linked documents, including hypertexts, was well known in the art. *See also* Furner, 1996 at 75, “The Representation and Comparison of Hypertext Structures Using Graphs” (applying “principles developed in the fields of graph theory”). The nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, Salton & McGill, 1983, which discusses in

depth vectors, matrices, and related linear algebra issues, urged combining techniques from different fields to enhance information retrieval. *See id*. at 431 ("Viable solutions to the information problem will eventually be found by combining results derived from these various disciplines.").

Information Retrieval and Hypertext/Internet/WWW. One of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to hypertext, and the Internet and all public and prior uses of hypertext and the Internet. Below are several exemplary references that disclose features of hypertext and the Internet: Frisse, 1988, Thompson, 1989, Nielsen, 1990b, Berk, 1991, Kommers, 1990. In addition, with respect to the use of Hypertext and the Internet, such systems were well known in the art at the time of filing of the '571 Patent (as well as the time of filing of the '352 and '494 Patents).

Below are several exemplary combinations of such prior art references:

- Salton and McGill, 1983 and Berners-Lee, 1989
- Salton, 1963, Pinski, 1976 and Berners-Lee, 1989
- Fox Thesis, 1983, Tapper, 1982, Berners-Lee, 1989
- Frisse, 1988, Berners-Lee, 1989
- Turtle, 1991, Pinkerton, 1994
- Thompson, 1989, Nielsen, 1990b, and Krol, 1994
- Fox/SMART, 1983 and Berners-Lee, 1989, Pinkerton, 1994

The purpose of both hypertext and the Internet was to provide information to users. As noted above, the early version of the Internet (W3) emphasized access to information ("The World-Wide Web (W3) initiative is a practical project to bring a global information universe into

existence") as well as search and links ("both hypertext links and text search are important parts of the model"). Berners-Lee 1992 at 1, 7.

For at least the following reasons, one of ordinary skill in the art would have been motivated to combine references in the field of information retrieval with references relating to organizing information as hypertext and or on the Internet.

First, a person of ordinary skill in the art would have been motivated to combine any of the anticipatory references with one or more of the particular references listed above because the industry was clearly moving in the direction of providing information retrieval systems for hypertext, such as the Internet. Berners-Lee, 1992, taught that, "Merging the techniques of hypertext, information retrieval, and wide-area networking produces the W^3 model." *Id*. at 1. In addition, it was known to apply bibliographic information retrieval methods to hypertext. *See e.g.*, Korfhage, 1991, "*To See, or Not to See – Is That the Query*," ACM, Vol. 9, pp. 134-141 at 140 ("In addition to the usual bibliographic document sets, we are studying … legal databases, scientific data, medical information, hypertext, and geographic databases … [N]umerical valuations must be developed for the data. In many cases this can be done through an adaptation of the techniques used for normal bibliographic data, developing measures based on frequency counts and other characteristics of the data."); Hara, Y. et al., "*Implementing Hypertext Database Relationships through Aggregations and Exceptions*," Hypertext '91 Proceedings, pp. 75- 90 at 78, December 1991 (providing a citation hierarchy as a model of hypertext relationship aggregation at 3.2). Accordingly, it was well known to apply information retrieval techniques, including in particular those developed for analysis of citations and other links, to the analysis of hypertext and the Internet.

Second, the references themselves suggest a variety of applications and combinations for information retrieval, thus further supporting a finding of obviousness. For example, with reference to hyperlinked web pages, U.S. Pat. No. 5,855,015 discloses that "a metric commonly used in the field of information retrieval may be used … to determine how interesting a particular resource will be to the user. Examples of such techniques are discussed in detail by Gerard Salton and Michael J. McGill, An Introduction to Modern Information Retrieval." '015 Patent at col. 9, l. 65- col. 10, l. 4. Likewise, Fox Envision, 1993 teaches "links among those documents become increasingly important to help with search and browsing…. We are beginning to see the emergence of wide area hypertext systems like the WorldWideWeb (WWW), that carry this concept forward into a distributed environment. Clearly, we must coordinate hypertext and hypermedia linking with the various approaches to search and retrieval." *Id.* at 482 (internal citations omitted). In addition, it was well known that some of the advantages of hypertext include "the ease of tracing references," "the ease of creating references, and "information structuring." Conklin, 1987 at 38. Furthermore, it was known that information about links can be used to search and identify documents in a hypertext system. *See, e.g.*, Conklin, 1987 at 35, Consens, 1989, Nielsen, 1990b at 139-140; Thompson, 1989 at 143.

Third, the nature of the problem to be solved would have directed persons of ordinary skill in the art to consider the combination of these references to arrive at the pertinent subject matter. For example, as the size of the Internet grew, search systems became necessary to enable users to find information. *See, e.g.*, McBryan, O, "GENVL and WWWW: Tools for Taming the Web," May 1994 ("A fundamental problem with the World Wide Web is the enormous number of resources available and the difficult of locating and tracking everything."); LA Times ("'The Internet is a big, big play for us,' Kraus said. 'There is lots of information out there that needs to

be searched and sorted.'" (Page D4)). Accordingly, it was known to apply information retrieval science to the Internet. Furthermore, as taught in the LA Times, it was known that systems that "us[e] relationships between documents to help find the ones that are useful" such as systems that "analyze[] the network of explicit links" should be used for searching the Internet.

Libertech Disclosures. One of ordinary skill in the art would have been motivated to combine one or more of the following references with one another (and/or with one or more of the other references identified herein for the reasons described above):

- Kaplan, LA Times;
- March 95 Libertech Press Release;
- April 95 Libertech Press Release;
- Infobase '95;
- '95 PCT; and
- Dec. 1994 Electronic Documents.

In addition, it was well known to search information stored on computers to return relevant information to users. For example, the LA Times article reported that, "'The Internet is a big, big play for us,' Kraus said. 'There is lots of information out there that needs to be searched and sorted.'" LA Times at D4. The LA Times article further teaches that systems that "us[e] relationships between documents to help find the ones that are useful" such as systems that "analyze[] the network of explicit links" should be used for searching the Internet. *Id.* Accordingly, one of ordinary skill in the art would have been motivated to combine prior art that teaches analyzing relationships between documents and networks of explicit links to search the Internet and related digital information.

Furthermore, the listed references (*see, e.g.*, the March 1995 press release and the April 1995 press release) state that Libertech's technology (*e.g.*, technology disclosed and used by it at the Infobase Conference and published in the '896 PCT) could be used for searching hyperlinks.

D. Contentions Under 35 U.S.C. § 112 Pursuant to P. R. 3-3(d)

The following contentions, made pursuant to P. R. 3-3(d), are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e) and the Orders of record in this matter to the extent appropriate, *e.g.*, in light of further investigation and discovery regarding the defenses, the Court's construction of the claims at issue, and/or the review and analysis of expert witnesses.

Defendants offer these contentions in response to SRA's Infringement Contentions and without prejudice to any position they may ultimately take as to any claim construction issues. To the extent the following contentions reflect constructions of claim limitations consistent with or implicit in SRA's Infringement Contentions, no inference is intended nor should any be drawn that Defendants agree with any claim construction implied by SRA's Infringement Contentions, and Defendants expressly reserve the right to contest such claim constructions.

Subject to the reservation of rights above, Defendants provide below an identification of asserted claims along with an identification of the specific limitations that are invalid pursuant to 35 U.S.C. § 112 ¶ 1 as lacking written description and/or enablement support and/or 35 U.S.C. § 112 ¶ 2 as indefinite.

1. Lack of Enablement

At least in view of the Plaintiff's apparent construction of the claims in its Infringement Contentions and its refusal to identify any enabling portions of the specification in response to Defendants' Common Interrogatory No 3, the asserted claims of the '571 Patent are invalid because the specification as filed does not enable the claimed methods. In particular, the patent

disclosure would not enable a person of ordinary skill in the art to practice the methods as claimed, either as a whole and/or in view of specific elements (examples of which are given below).

For example, with respect to claims 5-11, the specification is not enabling at least for "choosing a node" and "proximity analyzing the identified hyperjump data."

For example, with respect to claims 12-15, the specification is not enabling at least for "choosing an identifiable web page" and "cluster analyzing the Universal Resource Locators for indirect relationships."

For example, with respect to claims 16-20, the specification is not enabling at least for "choosing a document" and "cluster analyzing the Universal Resource Locators for indirect relationships,"

For example, with respect to claim 17, the specification is not enabling at least for "analyzing the pages and their respective Universal Resource Locators."

For example, with respect to claim 18, the specification is not enabling at least for "cluster analyzing the pages."

For example, with respect to claim 21, the specification is not enabling at least for "choosing a node," and "cluster analyzing the hyperjump data."

2. Lack of Written Description

At least in view of the Plaintiff's apparent construction of the claims in its Infringement Contentions and its refusal to identify any descriptive portions of the specification in response to Defendants' Common Interrogatory No 3, the asserted claims of the '571 Patent are invalid because the specification as filed does not contain a written description of the claimed methods. In particular, the patent disclosure would not lead a person of ordinary skill in the art to understand that the named inventors had possession of the methods as claimed, either as a whole

and/or in view of specific elements (examples of which are given below). *See, e.g.*, *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 424 F.3d 1336 (Fed. Cir. 2005).

For example, with respect to claims 5-11, the specification does not provide an adequate written description at least for "choosing a node" and "proximity analyzing the identified hyperjump data."

For example, with respect to claims 12-15, the specification does not provide an adequate written description at least for "choosing an identifiable web page" and "cluster analyzing the Universal Resource Locators for indirect relationships."

For example, with respect to claims 16-20, the specification does not provide an adequate written description at least for "choosing a document" and "cluster analyzing the Universal Resource Locators for indirect relationships."

For example, with respect to claim 21, the specification does not provide an adequate written description at least for "choosing a node" and "cluster analyzing the hyperjump data."

3. Indefiniteness

Depending on SRA's construction of claims 1 and 3-22 of the '571 Patent, one or more limitations of these claims may be indefinite under 35 U.S.C. § 112(2). As noted above, SRA's Infringement Contentions are so vague (*e.g.*, as to Yahoo!) as lend little to no insight into SRA's positions as to their meaning and scope. Defendants reserve the right to supplement these contentions to identify specific terms that are indefinite under Section 112(2) if SRA clarifies its positions.

4. Absence of Patentable Subject Matter

Although not required by P. R. 3-3, the asserted claims of the '571 Patent are invalid because they do not constitute patentable subject matter under 35 U.S.C. § 101. *See e.g.*, *Diamond v. Diehr*, 450 U.S. 17, (1981); *Gottschalk v. Benson*, 409 U.S. 63, (1972); *In re Bilski*,

545 F.3d 943 (Fed. Cir. 2008). For example, the asserted claims are not tied to a particular machine or apparatus, and they do not transform a particular article into a different state or thing.

Dated: January 23, 2009

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served on January 23, 2009 to counsel of record below via UPS.

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