

EXHIBIT B: Disputed Claims Terms and Evidence
P.R. 4-3 Joint Claim Construction and Prehearing Statement

I. U.S. Patent No. 8,190,610 (“’610 Patent”)

#	Term	Claim	American’s Construction	Intrinsic Evidence	Extrinsic Evidence
1	“identifiable to [that/the] data group”	1, 3, 4, 17, 19, 20	indefinite	’610 Patent claims, specification and figures, including at 3:58-64 and 7:18-23.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5th ed. 2002); Hung-chih Yang, et al., Map-Reduce-Merge: Simplified Relational Data Processing on Large Clusters, SIGMOD ’07: Proceedings of the 2007 ACM SIGMOD International Conference on Management of Data (2007); Jeffrey Dean et al., MapReduce: Simplified Data Processing on Large Clusters, Sixth Symposium on Operating System Design and Implementation (2004); Kimberly Tripp, “SQL Server 2005: Partitioned Tables and Indexes,” SQLSkills.com (Sep. 24, 2004); Oracle Database SQL Reference 10g; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff’s First Amended Complaint (April 15, 2022). All extrinsic evidence identified by any other party, including other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
2	"independently output a plurality of lists of values"	1, 17	"each map function outputs more than one list of values without coordination with other map functions"	'610 Patent claims, specification and figures, including Figs. 1, 2, 3, and 5. Office Action dated December 9, 2009; Response to Office Action dated March 9, 2010; Office Action dated August 17, 2010; Request for Continued Examination dated November 17, 2010; Office Action dated April 6, 2011; Response to Office Action dated July 6, 2011; Office Action dated August 9, 2011; Response to Office Action dated November 9, 2011; Request for Continued Examination dated November 17, 2011; Notice of Allowance dated April 2, 2012.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5 th ed. 2002); Hung-chih Yang, et al., Map-Reduce-Merge: Simplified Relational Data Processing on Large Clusters, SIGMOD '07: Proceedings of the 2007 ACM SIGMOD International Conference on Management of Data (2007); Jeffrey Dean et al., MapReduce: Simplified Data Processing on Large Clusters, Sixth Symposium on Operating System Design and Implementation (2004); Kimberly Tripp, "SQL Server 2005: Partitioned Tables and Indexes," SQLSkills.com (Sep. 24, 2004); Oracle Database SQL Reference 10g; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022). All extrinsic evidence identified by any other party, including other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
3	"the data of the first data group is mapped differently than the data of the second data group"	1, 17	"the data of the first data group is mapped by a different map function than the data of the second data group"	'610 Patent claims, specification and figures, including at 3:50-52. Office Action dated December 9, 2009; Response to Office Action dated March 9, 2010; Office Action dated August 17, 2010; Request for Continued Examination dated November 17, 2010; Office Action dated April 6, 2011; Response to Office Action dated July 6, 2011; Office Action dated August 9, 2011; Response to Office Action dated November 9, 2011; Request for Continued Examination dated November 17, 2011; Notice of Allowance dated April 2, 2012.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5 th ed. 2002); Hung-chih Yang, et al., Map-Reduce-Merge: Simplified Relational Data Processing on Large Clusters, SIGMOD '07: Proceedings of the 2007 ACM SIGMOD International Conference on Management of Data (2007); Jeffrey Dean et al., MapReduce: Simplified Data Processing on Large Clusters, Sixth Symposium on Operating System Design and Implementation (2004); Kimberly Tripp, "SQL Server 2005: Partitioned Tables and Indexes," SQLSkills.com (Sep. 24, 2004); Oracle Database SQL Reference 10g; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022). All extrinsic evidence identified by any other party, including other defendants in present and/or prior R2 matters.

II. U.S. Patent No. 8,341,157 (“’157 Patent”)

#	Term	Claim	American’s Construction	Intrinsic Evidence	Extrinsic Evidence
1	“intent(s)”	1, 2, 11, 12, 22	“a mapping from many combinations of keywords to a set of common goals that users pursue in a search query or session of multiple queries”	’157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 1:22-29, 1:33-2:18, 3:46-67, 4:64-5:13, 9:42-61; 12:6-22; 13:9-15:28; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff’s First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster’s Collegiate Dictionary 11th ed. (2004); Webster’s New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001). American Heritage College Dictionary 4th ed. (2007); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
2	"ranking"	1, 2	plain and ordinary meaning, which is "assigning a rank"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; col. 8:58-9:16; 10:4-22; 12:6-33; 13:23-63; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001); American Heritage College Dictionary 4th ed. (2007); Jerri L. Ledford, Search Engine Optimization Bible (2009); U.S. Patent Publication No. 2007/0073894; U.S. Patent No. 6,285,999; U.S. Patent Publication No 2006/0129552; U.S. Patent Publication No 2009/0157652; U.S. Patent No. 8,180,754; U.S. Patent No. 8,548,995; WO Patent Publication No. 2007/121490; U.S. Patent No. 8,090,736; U.S. Patent No. 6,526,440; Amy N. Langville & Carl D. Meyer, Google's PageRank and Beyond: The Science of Search Engine Rankings (2006); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
					other defendants in present and/or prior R2 matters.
3	"keyword"	1, 2	"a characteristic word, phrase or code in a query used to perform searching operations"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 4:15; 9:26-47; 9:62-10:3; 11:41-57; and 13:9-15:28; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001). American Heritage College Dictionary 4th ed. (2007); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
4	"token"	1, 2	"an individual textual element into which a query is parsed"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 4:15; 9:26-47; 9:62-10:3; 11:41-57; 13:9-15:28; ; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001). American Heritage College Dictionary 4th ed. (2007); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
5	"classifying the query ... into at least one/a subset of the plurality of intents"	1, 2	"assigning the query to one or more of the plurality of intents determined from the at least one query keywords"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 9:42-61; 11:53-63; 13:9-15:28; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001); American Heritage College Dictionary 4th ed. (2007); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
6	"data object(s)"	1, 2, 11, 12, 14, 16, 22	"an individually addressable unit of information that is searched for"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 4:1-5; 11:64-12:5; 13:9-15:28; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001); American Heritage College Dictionary 4th ed. (2007); Newton's Telecom Dictionary (21st ed) (2005); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
7	"display entry"	1, 2, 12, 16, 22	"an entry in the result transmitted to the user that corresponds to one of the ranked plurality of data objects"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 1:44-50; 2:10-18; 13:9-15:28; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001); American Heritage College Dictionary 4th ed. (2007); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
8	"at least some"	1, 2	"more than one"	'157 Patent claims, specification and figures, including at: Abstract; Figs. 1-3; 12:34-15:28; U.S. Patent. App. No. 12/533,299: Amendment and Response to Office Action dated May 18, 2012; Office Action dated February 21, 2012; Amendment and Response to Office Action dated December 23, 2011; Office Action dated October 5, 2011; Notice of Allowance dated September 24, 2012.	Declaration of Dr. Michael Goodrich. U.S. Patent No. 9,367,608; U.S. Patent No. 7.689,585; IPR2022-01456, EX 1016 - Declaration of B. Davis ISO Plaintiff's First Amended Complaint (April 15, 2022); Manning, Introduction to Information Retrieval (2008); Microsoft Internet and Networking Dictionary (2003); Merriam Webster's Collegiate Dictionary 11th ed. (2004); Webster's New World Computer Dictionary 251 (10th ed. 2003); The New Penguin Dictionary of Computing, Penguin Books (2001); American Heritage College Dictionary 4th ed. (2007); Complaint; D.I. 13; D.I. 18. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

III. U.S. Patent No. 7,698,329 (“’329 Patent”)

#	Term	Claim	American’s Construction	Intrinsic Evidence	Extrinsic Evidence
1	“each document of said certain documents containing at least one section that is not used by said search engine for recall”	1, 8	“each document of said certain documents containing a <noindex> tag”	Response to Office Action dated July 10, 2009. Response to Office Action dated January 4, 2010. Notice of Allowance dated February 1, 2010.	Declaration of Dr. Michael Goodrich. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.
2	“ranking”	1, 8	plain and ordinary meaning, which is “assigning a rank”	’329 Patent claims, specification and figures, including at: 1:62-67; 4:29-32; 4:32-38; 4:40-43; 4:50-53.	Declaration of Dr. Michael Goodrich. Jerri L. Ledford, Search Engine Optimization Bible (2009); Amy N. Langville & Carl D. Meyer, Google’s PageRank and Beyond: The Science of Search Engine Rankings (2006); U.S. Patent No. 6,285,999; U.S. Patent No. 6,526,440; U.S. Patent No. 8,090,736; U.S. Patent No. 8,180,754; U.S. Patent No. 8,548,995; U.S. Patent Publication No. 2006/0129552; U.S. Patent Publication No. 2007/0073894; U.S. Publication No. 2009/0157652; WO Patent Publication No. 2007/121490. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
3	"abstract"	4, 11	"a concise description of a document"	'329 Patent claims, specification and figures, including at: 4:54-57.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5 th ed. 2002). All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.
4	"search engine index" (noun)	5, 12	"an ordered list of information accompanied with the location of the information"	'329 Patent claims, specification and figures, including at: 1:51-59.	Declaration of Dr. Michael Goodrich. Jerri L. Ledford, Search Engine Optimization Bible (2009); Amy N. Langville & Carl D. Meyer, Google's PageRank and Beyond: The Science of Search Engine Rankings (2006); U.S. Patent. No. 8,509,266. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

I. U.S. Patent No. 8,209,317 (“’317 Patent”)

#	Term	Claim	American’s Construction	Intrinsic Evidence	Extrinsic Evidence
1	“submitted”	1, 2, 4-5, 8, 11-14	“entered and transmitted by entering a carriage return or by otherwise committing a deliberate act of submission”	’317 Patent claims, specification and figures, including at: fig. 2; 3:9-11. Office Action dated January 3, 2012; Response to Office Action dated April 2, 2012. Prosecution history of US Patent No. 8,046,347. Prosecution history of US Patent No. 7,716,201, including: Office Action dated June 17, 2008; Response to Office Action dated September 17, 2008; Office Action dated December 17, 2008; Response to Office Action dated April 15, 2009; Response to Office Action dated August 10, 2009; Office Action dated June 8, 2009; Request for Continued Examination dated October 8, 2009; Notice of allowability dated December 18, 2009.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5th ed. 2002). All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
2	"query data management server"	4, 5	"a server that analyzes historic query data"	'317 Patent claims, specification and figures, including at: 4:6-11.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5th ed. 2002). All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
3	"storing in memory data about previously received queries at the computer database system"	8	"data stored in the memory of a server of the computer database system about previous queries submitted by users"	'317 Patent claims, specification and figures, including at: fig. 2; 3:9-11. Office Action dated January 3, 2012; Response to Office Action dated April 2, 2012. Prosecution history of US Patent No. 8,046,347. Prosecution history of US Patent No. 7,716,201, including: Office Action dated June 17, 2008; Response to Office Action dated September 17, 2008; Office Action dated December 17, 2008; Response to Office Action dated April 15, 2009; Response to Office Action dated August 10, 2009; Office Action dated June 8, 2009; Request for Continued Examination dated October 8, 2009; Notice of allowability dated December 18, 2009.	Declaration of Dr. Michael Goodrich. Microsoft Computer Dictionary (5th ed. 2002). All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

#	Term	Claim	American's Construction	Intrinsic Evidence	Extrinsic Evidence
4	"better representative of the entire search query desired by the user"	1, 8	indefinite	'317 Patent claims, specification and figures, including at: 3:11-15.	Declaration of Dr. Michael Goodrich. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.
5	"not fully representative of an entire search query desired by the user"	1, 8	indefinite	'317 Patent claims, specification and figures, including at: 3:11-15.	Declaration of Dr. Michael Goodrich. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.
6	"a database configured to store information about events in the computer database system"	1	indefinite	'317 Patent claims, specification and figures.	Declaration of Dr. Michael Goodrich. All extrinsic evidence identified by any other party including, but not limited to other defendants in present and/or prior R2 matters.

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