IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

WORD TO INFO, INC.,	
Plaintiff,	
v.	Civil Action No
FACEBOOK, INC.	JURY TRIAL DEMANDED
Defendant.	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Word to Info, Inc. ("Word to Info"), by way of its Complaint against Facebook, Inc. ("Facebook" or "Defendant"), alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

THE PARTIES

- 2. Plaintiff Word to Info is a corporation organized under the laws of the State of Texas with a place of business at 1106 Edgewood Dr., Richardson, TX 75081.
- 3. On information and belief, Facebook, Inc. is a corporation organized under the laws of the State of Delaware with its principal place of business at 1 Hacker Way, Bldg 10, Menlo Park, California 94025. On information and belief, Facebook, Inc., itself or through its subsidiaries and agents, has conducted and does conduct business in this judicial district.

JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338.

- 5. This Court has personal jurisdiction over Facebook at least because Facebook has ongoing and systematic contacts with this District and the United States. Specifically, Facebook does business in the Northern District of Texas and has thereby availed itself of the privileges and the protections of the laws of the State of Texas and this Judicial District.
 - 6. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(c) and 1400(b).

STATEMENT OF FACTS

7. This is an action for patent infringement of one or more claims of United States U.S. Patent No. 5,715,468 entitled "Memory system for storing and retrieving experience and knowledge with natural language" (the '468 Patent); U.S. Patent No. 6,138,087 entitled "Memory system for storing and retrieving experience and knowledge with natural language utilizing state representation data, word sense numbers, function codes and/or directed graphs" (the '087 Patent); U.S. Patent No. 6,609,091 entitled "Memory system for storing and retrieving experience and knowledge with natural language utilizing state representation data, word sense numbers, function codes and/or directed graphs" (the '091 Patent); U.S. Patent No. 7,349,840 entitled "Memory system for storing and retrieving experience and knowledge with natural language utilizing state representation data, word sense numbers, function codes, directed graphs and/or context memory" (the '840 Patent); U.S. Patent No. 7,873,509 entitled "Memory system for storing and retrieving experience and knowledge with natural language utilizing state representation data, word sense numbers, function codes, directed graphs, context memory, and/or purpose relations" (the '509 Patent); U.S. Patent No. 8,326,603 entitled "Memory system for storing and retrieving experience and knowledge with natural language queries" (the '603 Patent); U.S. Patent No. 8,688,436 entitled "Memory system for storing and retrieving

experience and knowledge by utilizing natural language responses" (the '436 Patent) (collectively, the "Patents-in-Suit").

- 8. Word to Info is the assignee and owner of the right, title and interest in and to, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them. The Patents-in-Suit were previously owned by their sole inventor, Robert L. Budzinski, who is the owner of Word to Info. At least one of the Patents-in-Suit has been cited during prosecution of approximately 158 United States patents relating to natural language processing.
- 9. On February 3, 1998, the '468 Patent, was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '468 Patent is attached as Exhibit A to this Complaint.
- 10. On October 24, 2000, the '087 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '087 Patent is attached as Exhibit B to this Complaint.
- 11. On August 19, 2003, the '091 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '091 Patent is attached as Exhibit C to this Complaint.
- 12. On March 25, 2008, the '840 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '840 Patent is attached as Exhibit D to this Complaint.
- 13. On January 18, 2011, the '509 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '509 Patent is attached as Exhibit E to this Complaint.

- 14. On December 4, 2012, the '603 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '603 Patent is attached as Exhibit F to this Complaint.
- 15. On April 1, 2014, the '436 Patent was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '436 Patent is attached as Exhibit G to this Complaint.
- 16. In connection with its products or services, Facebook infringes one or more claims of each of the Patents-in-Suit.

FIRST CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 5,715,468

- 17. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 16 as though fully set forth herein.
- 18. Defendant Facebook has been directly infringing and continues to directly infringe one or more claims of the '468 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 19. Facebook infringes the '468 Patent by, at least, providing a system that electronically encodes data representative of natural language, includes a database containing a plurality of a syntax usage data entries, associated word sense numbers having associated state representation data, and/or function codes, lexically processing the electronically encoded data and accessing the dictionary data base, providing a grammar specification, and using the syntax usage data from the database with reference to the grammar specification to produce output

representative of a grammatical parse of the natural language, wherein the output data includes syntax usage.

- 20. Facebook also infringes the '468 Patent by, at least, providing a system that processes experience and knowledge that uses an experience and knowledge data base which is comprised of directed graphs comprised of nodes with associated clause implying word sense numbers organized into paths of said nodes such that said nodes have access conditions which determine the zero or more next said nodes on the zero or more said paths that are accessible, and finding zero or more paths between the nodes with reference to the experience and knowledge data base such that access conditions of the nodes on the found paths are met.
- 21. Facebook also infringes the '468 Patent by, at least, providing a system that generates natural language by providing one or more word sense numbers, providing a dictionary data base wherein the dictionary data base contains a plurality of entries which are comprised of syntax usage data, associated word sense numbers having associated state representation data and/or function codes, accessing the natural language word which is associated with said dictionary data base with the word sense number, providing a grammar specification, utilizing the syntax usage data and natural language words which are from the dictionary data base entries and which are associated with the word sense numbers with reference to the grammar specification to generate outgoing natural language.
- 22. Because of Facebook's infringement of the '468 Patent, Plaintiff has suffered damages and will continue to suffer damages in the future. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.

- 23. Facebook was made aware of the '468 Patent and its infringement thereof at least as early as the filing of this Complaint.
- 24. On information and belief, therefore, Facebook's continued infringement of the '468 Patent is willful and deliberate, entitling Plaintiff to enhanced damages under 35 U.S.C. § 284 and attorneys' fees and non-taxable costs under 35 U.S.C. § 285.

SECOND CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 6,138,087

- 25. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 24 as though fully set forth herein.
- 26. Defendant Facebook has been directly infringing one or more claims of the '087 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 27. Facebook infringes the '087 patent by, at least, providing a system that uses an experience and knowledge data base which is comprised of directed graphs comprised of nodes with associated clause implying word sense numbers organized into paths of said nodes, and processing said associated clause implying word sense numbers of said experience and knowledge database.
- 28. Because of Facebook's infringement of the '087 Patent, Plaintiff has suffered damages. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.

THIRD CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 6,609,091

- 29. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 28 as though fully set forth herein.
- 30. Defendant Facebook has been directly infringing and continues to directly infringe one or more claims of the '091 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 31. Facebook infringes the '091 patent by, at least, providing a system that electronically encodes data which is representative of said natural language, includes a dictionary data base wherein said dictionary data base contains a plurality of entries which are comprised of one or more of syntax usage data, associated word sense numbers having associated state representation data and/or function codes, lexically processes said electronically encoded data to access said dictionary data base, includes a grammar specification and a data base of requirements such that said requirements must be met by said associated state representation data of said word sense numbers for said word sense numbers to be selected, and utilizes said syntax usage data which are from entries of said dictionary data base and which are associated with words of said natural language with reference to said grammar specification to produce output data representative of a grammatical parse of said natural language, said output data including selected syntax usage.
- 32. Because of Facebook's infringement of the '091 Patent, Plaintiff has suffered damages and will continue to suffer damages in the future. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.

- 33. Facebook was made aware of the '091 Patent and its infringement thereof at least as early as the filing of this Complaint.
- 34. On information and belief, therefore, Facebook's infringement of the '091 Patent is willful and deliberate, entitling Plaintiff to enhanced damages under 35 U.S.C. § 284 and attorneys' fees and non-taxable costs under 35 U.S.C. § 285.

FOURTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 7,349,840

- 35. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 34 as though fully set forth herein.
- 36. Defendant Facebook has been directly infringing and continues to directly infringe one or more claims of the '840 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 37. Facebook infringes the '840 patent by, at least, providing a system that lexically processes electronically encoded data, accesses a dictionary database that contains a plurality of entries which are comprised of one or more of syntax usage data, associated word sense numbers having associated state representation data, and/or functions codes, includes a grammar specification and a context data base wherein said context data base contains a plurality of entries which are comprised of one or more of word sense numbers having associated state representation data, and/or function codes, and utilizing one or more of said syntax usage data, said word sense numbers, and/or said function codes which are from entries of said dictionary data base and which are associated with words of said natural language with reference to said

grammar specification and with reference to said context data base to select word sense numbers and/or function codes associated with said natural language words.

- 38. Because of Facebook's infringement of the '840 Patent, Plaintiff has suffered damages and will continue to suffer damages in the future. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.
- 39. Facebook was made aware of the '840 Patent and its infringement thereof at least as early as the filing of this Complaint.
- 40. On information and belief, Facebook's infringement of the '840 Patent is willful and deliberate, entitling Plaintiff to enhanced damages under 35 U.S.C. § 284 and attorneys' fees and non-taxable costs under 35 U.S.C. § 285.

FIFTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 7,873,509

- 41. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 40 as though fully set forth herein.
- 42. Defendant Facebook has been directly infringing one or more claims of the '509 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 43. Facebook infringes the '509 patent by, at least, providing a system that includes an experience and knowledge data base which is comprised of directed graphs comprised of nodes with associated clause implying word sense numbers organized into paths of said nodes such that said nodes have access conditions which determine zero or more next said nodes on zero or more said paths that are accessible, utilizes a natural language processor to provide

natural language with associated clause implying word sense numbers, purpose relation path identification processes to find zero or more said paths from said nodes associated with said clause implying word sense numbers associated with said natural language with reference to said experience and knowledge database such that said access conditions of said nodes on said found paths are met, and provides criteria for selecting said found experience and knowledge paths, and utilizing said criteria to select one or more of said found paths.

44. Because of Facebook's infringement of the '509 Patent, Plaintiff has suffered damages. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.

SIXTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 8,326,603

- 45. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 44 as though fully set forth herein.
- 46. Defendant Facebook has been directly infringing one or more claims of the '603 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 47. Facebook infringes the '603 patent by, at least, providing a system that utilizes a natural language processor to provide natural language with associated clause implying word sense numbers in memory associated with an apparatus, includes an experience and knowledge data base which is comprised of directed graphs comprised of nodes with associated clause implying word sense numbers organized into paths of said nodes such that said nodes have access conditions which determine zero or more next said nodes on zero or more said paths that are accessible, utilizes a purpose relation path identification processor to identify zero or more

said paths from said nodes associated with said clause implying word sense numbers associated with said natural language with reference to said experience and knowledge database such that said access conditions of said nodes on said found paths are met.

48. Because of Facebook's infringement of the '603 Patent, Plaintiff has suffered damages. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.

SEVENTH CLAIM FOR RELIEF

INFRINGEMENT OF U.S. PATENT NO. 8,688,436

- 49. Plaintiff repeats and re-alleges the allegations of paragraphs 1 through 48 as though fully set forth herein.
- 50. Defendant Facebook has been directly infringing one or more claims of the '436 Patent in the United States through at least its operation of the Graph Search feature of its Facebook product throughout the United States in violation of 35 U.S.C. § 271 (a).
- 51. Facebook infringes the '436 patent by, at least, providing a system in which natural language is processed by an apparatus to provide electronically encoded data which is representative of said natural language, providing a dictionary data base in memory associated with said apparatus wherein said dictionary data base contains a plurality of entries which are comprised of one or more of syntax usage data, associated word sense numbers with associated state representation data and/or function codes, lexically processing said electronically encoded data to access said dictionary data base, providing a natural language plausibility and expectedness processor to initiate accessing entries of said dictionary data base which are associated with words of said natural language.

52. Because of Facebook's infringement of the '436 Patent, Plaintiff has suffered damages. Plaintiff is entitled to an award of such damages, but in no event less than a reasonable royalty, the precise amount to be determined at trial.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Word to Info, Inc. respectfully demands entry of judgment against Facebook as follows:

- A. finding that Facebook has infringed one or more claims of the Patents-in-Suit;
- B. finding Facebook's infringement of at least one of the Patents-in-Suit to be willful;
- C. awarding Plaintiff damages to be paid by Facebook adequate to compensate Plaintiff for Facebook's past infringement of the Patents-in-Suit and any continuing or future infringement of the Patents-in-Suit through the date such judgment is entered, together with prejudgment and post-judgment interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial as justified under 35 U.S.C. § 284;
- D. a declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees;
- E. ordering an accounting of all infringing acts including, but not limited to, those acts not presented at trial and an award of damages to Plaintiff for any such acts; and
- F. awarding such other and further relief at law or in equity as the Court deems just and proper.

Dated: December 15, 2014

Respectfully submitted,

/s/ Steven R. Daniels
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