

GOOGLE'S INITIAL INVALIDITY CONTENTIONS

EXHIBIT A-18

Prior Art Reference: WordNet System ("WordNet")

The WordNet system¹ ("WordNet") was publicly known and used at least by 1990 and therefore qualifies as prior art under 35 U.S.C. §§ 102(a), (b), and (g) and/or 103 as to the asserted claims of U.S. Pat. No. 6,366,908 to Chong et al. ("the '908 Patent"). WordNet, including any material incorporated by reference into WordNet, anticipates claims 6-12 ("the Asserted Claims") of the '908 Patent under 35 U.S.C. § 102. WordNet also renders obvious the asserted claims under 35 U.S.C. § 103, alone or in combination with the art and/or in combination with one or more references identified in Google's Patent Local Rule 3-3 disclosures.

To the extent Plaintiff alleges that the WordNet does not disclose any particular limitation of Asserted Claims of the '908 Patent, either expressly or inherently, it would have been obvious to a person of ordinary skill in the art as of the priority date of the '908 Patent to modify the WordNet and/or to combine the teachings of the WordNet with other prior art references, in addition to the limited to the present prior art references found in Exhibits A-1 to A-23 and the relevant section of charts for other prior art references, in a manner that would have rendered the Asserted Claims invalid as obvious.

With respect to the obviousness of the Asserted Claims under 35 U.S.C. § 103, one or more of the principles enumerated in the United States Supreme Court in *KSR v. Teleflex*, 550 U.S. 398 (2007) apply, including: (a) combining various cl

¹ WordNet includes all predecessor and subsequent versions of WordNet, and all products (commercial or otherwise) that practice any of the aforementioned technologies, including the SMART system developed at Cornell University and IRENE developed at University of Nijmegen Netherlands.

² Google notes that Uniloc appears in many instances to be pursuing overly broad constructions of various limitations of the '908 Patent in an effort to piece together an infringement claim where none exists and to accuse a party of practicing the claims. This claim chart takes into account Uniloc's overly broad construction of the claim limitation that a particular limitation is disclosed by a prior art reference or references may be based on Uniloc's apparent construction, not intended to be, and is not, an admission that such constructions are supportable or proper. Google is investigating this claim chart has not yet completed discovery from third parties, who may have relevant information concerning the prior art, Cornell University, their affiliated companies, and/or their employees, and therefore, Google reserves the right to supplement this claim chart if additional discovery is received. To the extent that any of the prior art discloses the same or similar functionality of the accused products, Google reserves the right to argue that said feature or functionality does not practice any of the Asserted Claims, and to argue, in the alternative, that if said feature or functionality is found to practice any of the Asserted Claims of the '908 Patent, then the prior art reference teaches the limitation and that the claim is not

known in the prior art according to known methods to yield a predictable result; and/or (b) making a simple substitution of more known elements for another to obtain a predictable result; and/or (c) using a known technique to improve a method in the same way; and/or (d) applying a known technique to a known device or method ready for improvement to obtain a predictable result; and/or (e) choosing from a finite number of identified, predictable solutions with a reasonable expectation of success or, in other words, the solution was one which was “obvious to try”; and/or (f) a known work in one field of knowledge prompting variations of it for use either in the same field or a different field based on given design incentives or other known limitations which the variations were predictable to one of ordinary skill in the art; and/or (g) a teaching, suggestion, or motivation that would have led one of ordinary skill in the art to modify the prior art reference or to combine the teachings of multiple references to arrive at the claimed invention. It therefore would have been obvious to one of ordinary skill in the art in view of the disclosures of these references in accordance with the principles and rationales set forth above.

The citations to portions of any reference in this chart are exemplary only. For example, a citation that refers to a claim or figure item should be understood to also incorporate by reference that figure and any additional descriptions or limitations set forth fully therein. Google reserves the right to rely on the entirety of the references cited in this chart to show that the Claims are invalid. Citations presented for one claim limitation are expressly incorporated by reference into all other limitations of that claim as well as all limitations of all claims on which that claim depends. Google also reserves the right to rely on other citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, Uniloc’s infringement contentions, and/or information obtained during discovery as the case progresses.

At least the following documents³ describe the relevant functionality disclosed by WordNet:

- Julio Gonzalo et al., *Indexing with WordNet Synsets Can Improve Text Retrieval* (1998) (“WordNet Indexing”);
- Sanda M. Harabagiu et al., *WordNet 2 – A Morphologically and Semantically Enhanced Resource*, in *STANDARDIZING LEXICAL RESOURCES 1* (1999) (“WordNet 2”);
- Claudia Leacock et al., *Using Corpus Statistics and WordNet Relations for Sense Identification*, 24 *COMPUTATIONAL LINGUISTICS*, no. 1, at 147 (1998) (“WordNet Sense Identification”);

³ Each of the following documents describing WordNet also qualifies as a printed publication under 35 U.S.C. § 102(b) and/or 103 in its own right. These documents, alone or in combination with each other, also anticipate or render the Claims, as set forth in the chart below. One of ordinary skill in the art would have ample motivation to combine the references because they all describe features and functionality of the same prior art system, WordNet.

- Stan Szpakowicz, *A WordNet-based Algorithm for Word Sense Disambiguation*, in 95 IJCAI 1368 (1995) (“Sense Disambiguation”);
- Rila Mandala et al., *The Use of WordNet in Information Retrieval*, in USAGE OF WORDNET IN NATURAL LANGUAGE PROCESSING SYSTEMS (1998) (“WordNet Information Retrieval”);
- George A. Miller, *Nouns in WordNet: A Lexical Inheritance System*, 4 INT’L J. OF LEXICOGRAPHY, no. 4, (1990) (“WordNet Nouns”);
- George A. Miller, *WordNet: A Lexical Database for English*, 38 COMMUN’CS OF THE ACM, no. 11, at 39 (1995) (“WordNet Lexical Database”);
- George A. Miller et al., *Introduction to WordNet: An On-line Lexical Database*, 3 INT’L J. OF LEXICOGRAPHY, no. 1, (1990) (“Introduction to WordNet”);
- Philip Resnik, *Disambiguating Noun Groupings with Respect to WordNet Senses*, in NATURAL LANGUAGE & THEORY 77 (1998) (“Disambiguating WordNet Senses”);
- R. Richardson et al., *Using WordNet as a Knowledge Base for Measuring Semantic Similarity Between Words*, in WORDNET: A LEXICAL DATABASE FOR ENGLISH (1998) (“WordNet Knowledge Base”);
- Sam Scott & Stan Matwin, *Text Classification Using WordNet Hypernyms*, USAGE OF WORDNET IN NATURAL LANGUAGE PROCESSING SYSTEMS (1998) (“WordNet Hypernyms”);
- Ellen M. Voorhees, *Using WordNet to Disambiguate Word Senses for Text Retrieval*, in PROC. OF THE 16TH ANNUAL ACM SIGIR CONF. ON RESEARCH AND DEVELOPMENT IN INFORMATION RETRIEVAL 171 (1993) (“Voorhees”);
- *WordNet*, WIKIPEDIA, available at <https://en.wikipedia.org/wiki/WordNet> (last accessed Aug. 22, 2019) (“WordNet Wikipedia”).

This chart is based on a limited amount of publicly available information that was located regarding WordNet; our research describing WordNet also likely anticipates and/or renders obvious the Asserted Claims. Google is in the process of gathering additional information from Princeton University, their affiliated companies and/or their employees and researchers to supplement this chart after additional discovery is received.

