Paper No. 28

Date: October 7, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC, Petitioner,

v.

UNILOC 2017 LLC, Patent Owner.

IPR2020-00755 Patent 6,366,908 B1

Before SALLY C. MEDLEY, KRISTEN L. DROESCH, and SHEILA F. McSHANE, *Administrative Patent Judges*.

MEDLEY, Administrative Patent Judge.

JUDGMENT Final Written Decision Determining All Challenged Claims Unpatentable 35 U.S.C. § 318(a)



I. INTRODUCTION

Google LLC ("Petitioner") filed a Petition for *inter partes* review of claims 6–12 of U.S. Patent No. 6,366,908 B1 (Ex. 1001, "the '908 patent"). Paper 1 ("Pet."). Uniloc 2017 LLC ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp."). In accordance with Board authorization, Petitioner filed a Reply to the Preliminary Response (Paper 9) and Patent Owner filed a Sur-reply (Paper 11). Upon review of the papers, we instituted *inter partes* review, pursuant to 35 U.S.C. § 314, as to claims 6–12 based on the challenges set forth in the Petition. Paper 14 ("Decision to Institute" or "Dec.").

Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 17, "PO Resp."), Petitioner filed a Reply to Patent Owner's Response (Paper 19, "Pet. Reply"), and Patent Owner filed a Sur-reply (Paper 20, "Sur-reply"). On July 15, 2021, we held an oral hearing. A transcript of the hearing is of record. Paper 27 ("Tr.").

For the reasons that follow, we conclude that Petitioner has proven by a preponderance of the evidence that claims 6–12 of the '908 patent are unpatentable.

A. Related Matters

Petitioner and Patent Owner indicate that the '908 patent is the subject of court proceeding, *Uniloc 2017 LLC v. Google LLC*, No. 2:18-cv-00553 (E.D. Tex.). Pet. 93; Prelim. Resp. 3. Petitioner's motion to transfer the district court case to the Northern District of California was granted. Ex. 1046. According to Petitioner, "the Northern District of California found that at least Fortress Credit Co. LLC held sufficient rights in the challenged patent that Uniloc lacked standing to sue. The court then



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dismissed the litigation for lack of subject matter jurisdiction." Paper 18, 1 (citing *Uniloc 2017 LLC v. Google LLC*, No. 4:20-cv-05345-YGR (N.D. Cal. Entered Dec. 22, 2020 (single order addressing eleven cases)). Petitioner states "Uniloc filed a notice of appeal on December 31, 2020." *Id.*

B. The '908 Patent¹

The '908 patent describes a keyfact-based text retrieval method and a keyfact-based text index method. Ex. 1001, 1:6–7. The '908 patent states that a keyfact is "an important fact contained in sentences which constitute a document," where the keyfact is "represented by an object and property information through syntactic analysis of a sentence." *Id.* at 1:15–18. As described in the '908 patent, a keyword-based text retrieval method was the mainstream in conventional text retrieval methods, but the precision of a keyword-based text retrieval method was less than ideal for several reasons. *Id.* at 1:19–22. First, the meaning of the document was not precisely represented because the document was represented by keywords, which are nouns. *Id.* at 1:22–25. Second, when a query included a natural language phrase, sentence, or keywords, the intention of the user's query was not reflected precisely in a keyword-based text retrieval method. *Id.* at 1:27–32. Therefore, the keyword-based text retrieval method had a fundamental limitation in retrieval precision because it performed document retrieval by keywords. *Id.* at 1:32–34. Phrase-based text retrieval methods perform more precise text retrieval than the keyword-based text retrieval method, but performs less precise text retrieval than a concept-based text retrieval method, which expresses text by concept units. *Id.* at 1:45–49.

¹ The '908 patent appears to be expired.



The '908 patent further describes a new approach to keyfact-based text retrieval that overcomes the shortcomings of the keyword-based text retrieval method and generalized phrase-based text retrieval methods. *Id.* at 1:50–53. In a keyfact-based text retrieval method, parts of text that represent the same meaning are described as a keyfact, where the phrases or words having the same meaning are indexed as the same indexing terms. *Id.* at 1:53–55, 1:60–62. According to the '908 patent, since the keyfact-based retrieval method is a concept-based retrieval method, indexing and retrieval of the keyfact-based retrieval method are performed with the unit of the keyfact, and precision of the retrieval is greatly improved. *Id.* at 1:55–59.

A block diagram of a keyfact-based text retrieval system is illustrated in Figure 1, reproduced below.

FIG. 1

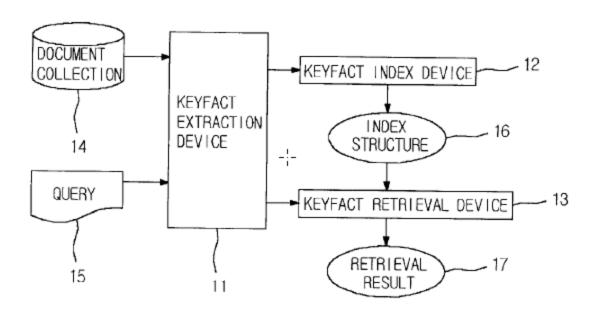


Figure 1 is a block diagram illustrating a keyfact-based text retrieval system. *Id.* at 4:22–23. The keyfact-based text retrieval system comprises



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keyfact extraction device 11, keyfact index device 12, and keyfact retrieval device 13. *Id.* at 4:23–26. The '908 patent describes that once a document collection 14 or a query 15 is given, the keyfact extraction device 11 extracts words without ambiguity by performing morphological analysis and tagging. *Id.* at 4:42–45. The keyfact generation rule is applied to the words and then the keyfacts are extracted. *Id.* at 4:45–46. The keyfact index device 12 indexes the document collection 14 or the query 15 with the unit of keyfact and calculates the frequencies of the keyfacts. *Id.* at 4:47–49. The frequencies of the keyfacts are stored into the index structure 16 with the document ID information. *Id.* at 4:49–51. The keyfact retrieval device 13 orders documents using a similarity calculation method and shows retrieval results. *Id.* at 4:51–53.

A block diagram of a keyfact extraction device of a keyfact-based text retrieval system is illustrated in Figure 3, reproduced below.



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