

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE INC.  
Petitioner,

v.

NETWORK-1 TECHNOLOGIES, INC.,  
Patent Owner.

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Case IPR2015-00345  
Patent 8,205,237 B2

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Before KEVIN F. TURNER, LYNNE E. PETTIGREW, and  
JON B. TORNQUIST, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION  
Institution of *Inter Partes* Review  
37 C.F.R. § 42.108

## I. INTRODUCTION

Google Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–27, 29, 30, 32–35, 37, 38, and 40 of U.S. Patent No. 8,205,237 B2 (Ex. 1001, “the ’237 Patent”). Network-1 Technologies, Inc. (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 5 (“Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

For the reasons set forth below, on this record, Petitioner demonstrates a reasonable likelihood of prevailing in showing the unpatentability of claims 1–16, 21–27, 29, 30, 33–35, 37, and 38 of the ’237 Patent. Accordingly, we institute *inter partes* review as to claims 1–16, 21–27, 29, 30, 33–35, 37, and 38 of the ’237 Patent on the grounds specified below.

### A. *Related Proceedings*

The parties inform us that the ’237 Patent is the subject of the following lawsuit: *Network-1 Technologies, Inc. v. Google Inc. and YouTube, LLC*, Case No. 1:14-cv-02396 (S.D.N.Y.). Pet. 1. YouTube, LLC is a subsidiary of Petitioner, and is acknowledged as a real party-in-interest. *Id.* In addition, three additional patents, U.S. Patent Nos. 8,2640,179, 8,010,988, and 8,656,441, all issuing from applications related to the ’237 Patent, are subject to requests for *inter partes* review, namely IPR2015-00343, IPR2015-00347, and IPR2015-00348, respectively, where institution of those proceedings are being decided concurrently.

B. *The '237 Patent*

The '237 Patent relates to identifying a work, such as a digital audio or video file, without the need to modify the work. Ex. 1001, 1:31–36, 4:25–31. This identification can be accomplished through the extraction of features from the work, and comparison of those extracted features with records of a database or library. *Id.* at Abstract. Thereafter, an action may be determined based on the identification determined. *Id.* at 4:24–25. Patent Owner refers to Figure 1 as illustrating the steps of the claimed computer-implemented methods (Prelim. Resp. 4):

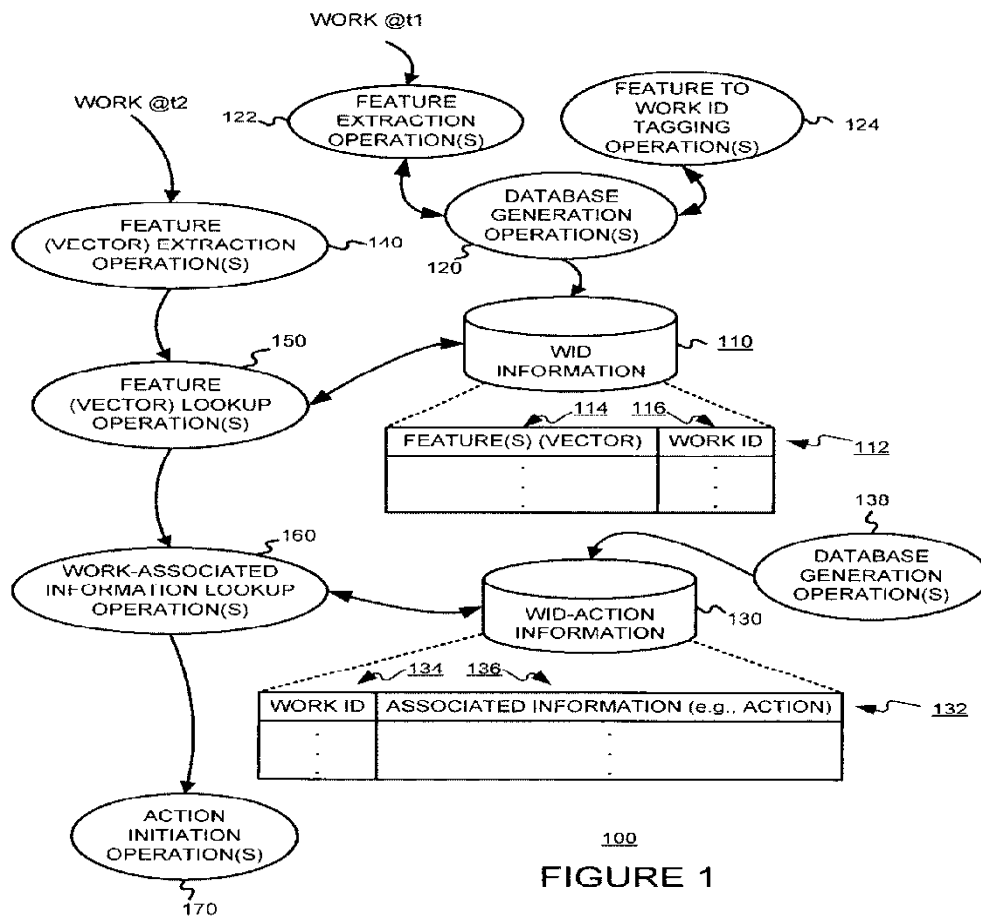


Fig. 1 of the '237 Patent illustrating the claimed method

C. *Illustrative Claim*

Claim 1 is independent, is considered representative of the claims challenged, and is reproduced below:

1. A computer-implemented method comprising:
  - a) receiving, by a computer system including at least one computer, features that were extracted from a media work by a client device;
  - b) determining, by the computer system, an identification of the media work using the received features extracted from the media work to perform a sub-linear time search of extracted features of identified media works to identify a neighbor; and
  - c) transmitting, by the computer system, information about the identified media work to the client device.

Ex. 1001, 25:2–13.

D. *Evidence of Record*

Petitioner relies on the following references and Declaration (*see* Pet. 2–3):

<b>Reference or Declaration</b>	<b>Exhibit No.</b>
Sunil Arya, et al., “An Optimal Algorithm for Approximate Nearest Neighbor Searching in Fixed Dimensions” <i>Journal of the ACM</i> , 45(6), 891–923 (1998) (“Arya”)	Ex. 1006
Christian Böhm, et al., “Efficient Similarity Search in Digital Libraries” <i>IEEE Advances in Digital Libraries</i> , 193–199 (2000) (“Böhm”)	Ex. 1007
U.S. Patent No. 7,444,353 (“Chen”)	Ex. 1008
U.S. Patent No. 5,874,686 (“Ghias”)	Ex. 1010
U.S. Patent No. 6,597,405 (“Iggulden”)	Ex. 1011
U.S. Patent No. 6,188,010 (“Iwamura”)	Ex. 1012
U.S. Patent No. 6,505,160 (“Levy”)	Ex. 1013
U.S. Patent No. 7,743,092 (“Wood”)	Ex. 1015
Declaration of Dr. Pierre Moulin	Ex. 1004

E. *Asserted Grounds of Unpatentability*

Petitioner asserts that the challenged claims are unpatentable on the following grounds (*see* Pet. 2):

<b>Claims Challenged</b>	<b>Basis</b>	<b>Reference(s)</b>
1, 3–5, 7–9, 11–13, 15, 16, 21–25, 29, 30, 33, 37, and 38	§ 102(e)	Iwamura
1–25, 29, 30, 32, 33, 37, 38, and 40	§ 103	Levy and Arya
25, 32, 33, and 40	§ 103	Iggulden and Böhm
1–3, 5–7, 9–11, 13–15, and 21–24	§ 102(b)	Ghias
9–16, 23, and 24	§ 102(e)	Wood
26, 27, 34, and 35	§ 103	Iwamura
26, 27, 34, and 35	§ 103	Iwamura and Chen
26, 27, 34, and 35	§ 103	Levy, Arya, and Chen

II. ANALYSIS

A. *Claim Construction*

The claims of an unexpired patent are interpreted using the broadest reasonable interpretation in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1281–82 (Fed. Cir. 2015). On this record and for purposes of this decision, we determine that only the claim terms addressed below require express construction.

1. *Nonexhaustive*

Independent claim 25 of the '237 Patent recites that the “determining” step occurs through performance of “a nonexhaustive search of reference extracted features.” Petitioner argues that the term “nonexhaustive search” should be construed to mean “a search that locates a match without conducting a brute force comparison of all possible matches, and all data

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