

# EXHIBIT 5

1 UNITED STATES PATENT AND TRADEMARK OFFICE  
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3 GOOGLE INC., )  
4 )  
5 Petitioner, )  
6 )  
7 vs. ) Patent No.  
8 ) 8,904,464  
9 NETWORK-1 TECHNOLOGIES, INC., )  
10 )  
11 Patent Owner. )

12 DEPOSITION OF PIERRE MOULIN, Ph.D.  
13 Champaign, Illinois  
14 Monday, December 7, 2015  
15  
16  
17  
18  
19  
20  
21

22  
23 Reported by:  
24 RACHEL F. GARD, CSR, RPR, CLR, CRR  
25 JOB NO. 100828

Page 2

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3  
4           December 7, 2015  
5           9:14 a.m.  
6  
7           Deposition of PIERRE MOULIN, Ph.D., at the  
8 I Hotel and Conference Center, 1900 South First  
9 Street, Champaign, Illinois, pursuant to notice  
10 before Rachel F. Gard, Illinois Certified  
11 Shorthand Reporter, Registered Professional  
12 Reporter, Certified LiveNote Reporter,  
13 Certified Realtime Reporter.  
14  
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16  
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1                           I N D E X  
2 WITNESS                           PAGE  
3 PIERRE MOULIN, Ph.D.  
4       Cross-Examination by Mr. Dovel           5  
5       Redirect Examination by Mr. Goldberg   102  
6  
7                           E X H I B I T S  
8 EXHIBIT                           PAGE  
9 Exhibit 1001 Patent Number '464           5  
10  
11       Exhibit 1003 Declaration           5  
12       Exhibit 1006 Ferris reference           5  
13       Exhibit 1007 Lambert reference           85  
14       Exhibit 1008 Gionis reference           98  
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1   A P P E A R A N C E S:  
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17   BY: GREGORY SCOTT DOVEL, ESQ.  
18       (Via videoconference)  
19  
20  
21  
22  
23  
24   ALSO PRESENT: RICH SONNENTAG, Google  
25

Page 5

1                           (Witness sworn.)  
2   WHEREUPON:  
3       PIERRE MOULIN, Ph.D.,  
4   called as a witness herein, having been first  
5   duly sworn, was examined and testified as  
6   follows:  
7                           CROSS-EXAMINATION  
8   BY MR. DOVEL:  
9       Q. Dr. Moulin, good to see you again.  
10      A. Likewise.  
11         (Exhibit Number 1001 marked for  
12      identification.)  
13      Q. I'm going to place a number of  
14      exhibits in front of you. I'm going to have  
15      marked as Exhibit 1001, Patent Number '464.  
16      I'll have that placed in front of you.  
17      A. Thank you.  
18         (Exhibit Number 1003 marked for  
19      identification.)  
20      Q. I'm going to mark as Exhibit 1003, a  
21      declaration you filed in connection with this  
22      proceeding. That will be Exhibit 1003 in this  
23      deposition as well.  
24         (Exhibit Number 1006 marked for  
25      identification.)

1 Q. And I'll have marked as  
2 Exhibit 1006, a copy of the Ferris reference.

3 Dr. Moulin, I'd like to have you  
4 turn in your declaration, which is  
5 Exhibit 1003, to Page 20 -- Actually, let's  
6 start with Page 16, Paragraph 37. Dr. Moulin,  
7 in this paragraph, you describe a portion of  
8 what's happening in the '464 patent; is that  
9 correct?

10 A. Yes.

11 Q. And you refer to a unique identifier  
12 is entered into a work identification, WID,  
13 database.

14 Do you see that?

15 A. Yes.

16 Q. And above that you quote a portion  
17 of the '464 patent. It says: The signals may  
18 be processed to extract a representative  
19 feature vector, and this feature vector is  
20 assigned a unique identifier.

21 Do you see that?

22 A. Yes.

23 Q. Okay. I'd like you to turn to the  
24 '464 patent, which is Exhibit 1001.

25 A. Yes.

1 Q. I'd like you to turn to column 6.  
2 In column 6, starting at Line 10, there's a  
3 sentence that reads: Each item or record 112  
4 may associate a feature vector of a work 114  
5 with a preferably unique work identifier 116.

6 Do you see that?

7 A. Yes.

8 Q. What is your understanding of what  
9 is meant by work identifier 116?

10 A. So it is something that identifies  
11 the work.

12 Q. I'd like you to look at Figure 9 in  
13 the patent.

14 A. Yes.

15 Q. Do you see where at the top of  
16 Figure 9, it has a table, one of the rows of  
17 which is work identifier?

18 A. Yes.

19 Q. And then there's some examples of  
20 work identifiers. Do you see those?

21 A. Yes.

22 Q. In the '464 patent, is the work  
23 identifier a character or group of characters  
24 that are used to identify or name an item?

25 A. It does not have to.

1 Q. Doesn't have to what?

2 A. It does not have to be characters or  
3 numbers as in Figure 9.

4 Q. What can it be?

5 A. Anything that identifies a work.

6 Q. When we talk about work, we're  
7 talking about in the case of the '464 patent,  
8 electronic media works; is that right?

9 A. Yes.

10 Q. What is an electronic media work?

11 A. It is a media work that is  
12 represented electronically.

13 Q. What does it mean to be represented  
14 electronically?

15 A. Which can be represented on a  
16 computer, as an example.

17 Q. Is an electronic media work a media  
18 work that must be processed by an electronic  
19 device in order to be perceived by the audience  
20 or by a user?

21 A. An electronic media work is just a  
22 work which can be represented electronically,  
23 again as an example, by a computer. The user  
24 filters is not matter. It's just a work that  
25 can be represented electronically.

1 Q. When the '464 patent refers to an  
2 electronic media work identifier, does the word  
3 identifier have some special meaning in the  
4 patent? Or is it used with its ordinary  
5 meaning in the field?

6 A. My understanding is it's the  
7 ordinary meaning in the field.

8 Q. In your declaration, did you  
9 identify what the ordinary meaning in the field  
10 was for identifier?

11 A. I do not believe I defined it  
12 explicitly, no.

13 Q. Are you familiar with an  
14 organization called the IEEE?

15 A. Yes.

16 Q. Would you accept the IEEE Standard  
17 Dictionary of Electrical and Electronic Terms  
18 as an authoritative source of the ordinary  
19 meaning of identifier in the field?

20 A. Not necessarily. There are multiple  
21 possible definitions.

22 Q. What are the multiple possible  
23 definitions of identifier?

24 A. One could be a definition taken from  
25 a dictionary.

1 Q. Well, my question is this: Does the  
2 IEEE Standard Dictionary of Electrical and  
3 Electronic Terms capture the ordinary meaning  
4 of terms in the field?

5 A. You would have to give me the  
6 definition. I do not know it.

7 Q. Do you have any reason to think  
8 the -- Well, withdrawn.

9 In general is it your understanding  
10 that the IEEE Standard Dictionary of Electrical  
11 and Electronic Terms captures the ordinary  
12 meaning of terms in the field?

13 A. Not necessarily.

14 Q. In what instance would the --  
15 Withdrawn.

16 Can you give me an example of when  
17 the IEEE Standard Dictionary of Electrical and  
18 Electronic Terms would not set forth the  
19 ordinary meaning of a term?

20 A. Well, IEEE is the international  
21 organization of electrical and electronics  
22 engineers. So it is geared towards electronics  
23 and electrical engineers, not to say computer  
24 science people. Computer science people may  
25 have their own definition of the name

1 Q. Yeah, when it's something that  
2 identifies something, the first something, the  
3 thing that's doing the identifying, the  
4 identifier --

5 A. Yes.

6 Q. -- to be an identifier, it's going  
7 to have to be some sort of name, label,  
8 alphanumeric group, or symbol that identifies  
9 something, correct?

10 A. Not necessarily.

11 Q. Why not?

12 A. There could be other ways to  
13 identify something.

14 Q. What other ways?

15 A. Well, for instance, if I think of  
16 President Obama's address to nation last night,  
17 I can just say it's President Obama's address  
18 to nation last night. It's not written. It's  
19 not converted to numbers or anything. It's  
20 just words, and someone else may say  
21 differently. It still identifies the event and  
22 the TV work.

23 Q. All right. You gave me an example  
24 of a spoken identifier. The example you gave  
25 me was a group of words; is that correct?

1 identifier.

2 So if you look at the ACM community,  
3 which is the main community for computer  
4 science people, they may have their own  
5 definition of identifier. I'm not going to say  
6 that one definition is better than the other  
7 one.

8 Q. Does the -- Is the term identifier  
9 as its used by electro-electronic engineers  
10 differ in any way from how it's used in the  
11 field of computer science?

12 A. I need to know what the definition  
13 is. There are glossaries and so on. I would  
14 need to know what the definition is.

15 Q. In computer science, what does  
16 identifier mean?

17 A. Again, it is something that  
18 identifies something.

19 Q. Now, if we -- When you say it's  
20 something that identifies something, does the  
21 something have to be a symbol, character, group  
22 of characters?

23 MR. GOLDBERG: Objection to form.

24 A. Which something? There are two  
25 somethings in my sentence.

1 A. In my example, yes.

2 Q. Let's assume we have an identifier  
3 that's recorded in a computer system.  
4 Withdraw.

5 Is it your understanding that the  
6 electronic media work identifier that's used in  
7 the '464 patent is an identifier that is stored  
8 in a computer system?

9 A. Not necessarily.

10 Q. When would it not be stored in the  
11 computer system?

12 A. It could be stored on another  
13 medium, let's say a VHS tape.

14 Q. If an identifier is stored on a VHS  
15 tape, then it would not be stored in a computer  
16 system; is that correct?

17 A. The tape itself is not a computer.

18 Q. Is it the case that to be an  
19 electronic media -- Withdrawn.

20 Is it the case that for something to  
21 be an electronic media work identifier as used  
22 in the '464 patent, it is going to have to be  
23 either created by a computer system and  
24 temporarily stored in a computer system or  
25 permanently stored in a computer system?

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