

1 UNITED STATES PATENT AND TRADEMARK OFFICE

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3  
4 BEFORE THE BOARD OF PATENT APPEALS  
5 AND INTERFERENCES

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8 *Ex parte* GREG LINDEN

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10  
11 Appeal 2007-0702  
12 Application 09/538,679  
13 Technology Center 3600

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15  
16 Decided: January 17, 2008

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18  
19 Before HUBERT C. LORIN, ANTON W. FETTING, and  
20 JOSEPH A. FISCHETTI, *Administrative Patent Judges*.

21 FETTING, *Administrative Patent Judge*.

22 DECISION ON APPEAL

23  
24 STATEMENT OF CASE

25 Greg Linden (Appellant) seeks review under 35 U.S.C. § 134 of a  
26 Final Rejection of claims 1-36, 56, and 57, the only claims pending and not  
27 withdrawn in the application on appeal.<sup>1</sup>

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<sup>1</sup> Claims 42-53 are cancelled and claims 37-41 and 54-55 are withdrawn.

1           We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b)  
2 (2002).

3  
4           We AFFIRM-IN-PART.

5           The Appellant invented a way for automatically identifying similar  
6 purchasing opportunities. For example, for an initial auction, the invention  
7 can identify auctions, or purchasing opportunities of other types, that offer  
8 the same or a similar item, similar prices or other terms (Specification 2:14-  
9 17).

10           Descriptive information about an initial purchasing opportunity is  
11 used to identify purchasing opportunities that are similar to the initial  
12 purchasing opportunity. The descriptive information may describe the item  
13 offered, as well as other terms of the purchasing opportunity, such as price,  
14 availability, seller identity or location, purchasing opportunity type  
15 (Specification 2:18-24).

16           Initially, key words occurring in the descriptive information for an  
17 initial purchasing opportunity are identified whose occurrence tend to best  
18 differentiate the initial purchasing opportunity from others. Then a score is  
19 attributed to each key word quantifying this tendency. In a preferred  
20 embodiment, key words are identified and scores attributed using the inverse  
21 document frequencies of the terms occurring in the descriptive information  
22 for the initial purchasing opportunity. The inverse document frequency of a  
23 term measures the fraction of occurrences of the term among the descriptive  
24 information for all of the purchasing opportunities that occur in the  
25 descriptive information for the initial purchasing opportunity. For example,  
26 if a particular term occurred three times in the descriptive information for

1 the initial purchasing opportunity and occurred 100 times in the descriptive  
2 information for all of the purchasing opportunities, that term would have an  
3 inverse document frequency of 3%, or .03 (Specification 2:25-3:9).

4 The descriptive information is searched for all of the purchasing  
5 opportunities to determine, for each key word, which purchasing  
6 opportunities' descriptive information contains the key word. Then  
7 similarity scores are generated for at least some of the other purchasing  
8 opportunities by, for each such purchasing opportunity, summing the scores  
9 of key words that occur in the purchasing opportunities (Specification 3:10-  
10 17).

11 The purchasing opportunity scores may then be used to order the  
12 purchasing opportunities based upon their level of similarity to the initial  
13 purchasing opportunity (Specification 3:18-27).

14 An understanding of the invention can be derived from a reading of  
15 exemplary claims 1 and 2, which are reproduced below [bracketed matter  
16 and some paragraphing added].

- 17 1. A method in one or more computer systems for identifying  
18 auctions offering units of the same item, comprising:  
19 [1] displaying information about a first auction,  
20 the information including a description of a first item unit  
21 offered in the first auction;  
22 [2] receiving user input requesting information about other  
23 auctions offering item units that are units of the same item as  
24 the first item unit;  
25 [3] determining,  
26 for the description of the first item unit  
27 among descriptions of item units

1                            offered in a group of auctions including the first  
2                            auction,  
3                            the inverse document frequency of terms occurring  
4                            within the description of the first item unit;  
5        [4] selecting a plurality of terms  
6                            within the description of the first item unit  
7                            having the largest inverse document frequencies;  
8        [5] for each of the selected terms,  
9                            conducting a search for auctions in the group  
10                           whose item descriptions contain the selected term;  
11        [6] for each auction found in at least one of the conducted  
12        searches,  
13                           determining which of the selected terms occur in the  
14                           auction's item description;  
15        [7] identifying  
16                           as an auction offering an item unit that is a unit of the  
17                           same item as the first item unit[,]  
18                           an auction among the found auctions  
19                           where the sum of the inverse document  
20                           frequencies of the selected terms that occur in the  
21                           item description for the auction exceeds a  
22                           threshold; and  
23        [8] displaying information about the identified auction.

24        2. A method in a computer system for identifying purchasing  
25        opportunities within a set of purchasing opportunities that are  
26        similar to a distinguished purchasing opportunity, the  
27        distinguished purchasing opportunity having descriptive  
28        information associated with it, comprising:  
29        [1] for each of a plurality of terms occurring in the descriptive  
30        information associated with the distinguished purchasing  
31        opportunity,  
32                           generating a term score

1 reflecting the extent to which  
2 the occurrence of the term in the descriptive  
3 information associated with the  
4 distinguished purchasing opportunity  
5 differentiates  
6 the distinguished purchasing opportunity  
7 from other purchasing opportunities in the  
8 set;

9 [2] selecting as key words a plurality of terms having the  
10 highest term scores;

11 [3] identifying purchasing opportunities of the set containing  
12 one or more key words;

13 [4] establishing a purchasing opportunity score  
14 for each identified purchasing opportunity

15 by summing the term score of the one or more key words  
16 occurring in descriptive information associated with the  
17 identified purchasing opportunities; and

18 [5] displaying information about one or more of the identified  
19 purchasing opportunities.

20  
21 This appeal arises from the Examiner's Final Rejection, mailed June  
22 14, 2004. The Appellant filed an Appeal Brief in support of the appeal on  
23 May 9, 2005. An Examiner's Answer to the Appeal Brief was mailed on  
24 May 19, 2006. A Reply Brief was filed on July 19, 2006. The Appellant  
25 presented arguments telephonically at a hearing on December 19, 2007.

26 PRIOR ART

27 The Examiner relies upon the following prior art:

28	Ishikawa	US 5,848,407	Dec. 8, 1998
29	Sato	US 6,212,517 B1	Apr. 3, 2001

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1 Phillips Semiconductors; PIP for Compandor SA571,  
2 <http://www.kwantlen.bc.ca/electroncis/eltn2319/edata/lab/datasheets/compa>  
3 [ndor571.html](http://www.kwantlen.bc.ca/electroncis/eltn2319/edata/lab/datasheets/compandor571.html) (last visited Aug. 27, 2003).

4 REJECTIONS

5 Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph, as not  
6 enabling a person of ordinary skill in the art to make and use the claimed  
7 subject matter from the original disclosure.

8 Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as  
9 failing to particularly point out and distinctly claim the invention.

10 Claims 1-36, 56, and 57 stand rejected under 35 U.S.C. § 103(a) as  
11 unpatentable over Phillips, Sato, and Ishikawa.

12 ISSUES

13 The issues pertinent to this appeal are

- 14 • Whether the Appellant has sustained its burden of showing that the  
15 Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, first  
16 paragraph, as not enabling a person of ordinary skill in the art to make  
17 and use the claimed subject matter from the original disclosure.
- 18 • Whether the Appellant has sustained its burden of showing that the  
19 Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, second  
20 paragraph, as failing to particularly point out and distinctly claim the  
21 invention.
- 22 • Whether the Appellant has sustained its burden of showing that the  
23 Examiner erred in rejecting claims 1-36, 56, and 57 under 35 U.S.C. §  
24 103(a) as unpatentable over Phillips, Sato, and Ishikawa.



- 1 text base and providing a list of keywords ranked in order of  
2 importance in the selected text group (Sato 1:7-11).
- 3 05. Sato describes a computation of a degree of importance for each  
4 search term that is based upon, among other variables, an inverse  
5 document frequency for that term. Sato performs a search based  
6 upon the degree of importance of terms (Sato 5:58 – 7:33).
- 7 06. Sato does not describe identifying information based on a  
8 measure exceeding a threshold.
- 9 *Ishikawa*
- 10 07. Ishikawa is directed toward a hypertext document retrieving  
11 apparatus in which a plurality of hypertext documents likely to  
12 meet a user's retrieval request are retrieved from a large volume of  
13 hypertext documents and are presented to the user (Ishikawa 1:7-  
14 12).
- 15 08. Ishikawa describes a computation of a product for each search  
16 term of an occurrence frequency (TF) with an inverse document  
17 frequency (IDF). Sato performs a ranking of results based upon  
18 these products of the terms (Ishikawa 7:45 – 8:9). This ranking  
19 may also be on the sum of the products (Ishikawa 11:31-40).
- 20 09. Ishikawa describes a user entering keywords for a search, and  
21 documents containing one or more of those keywords are  
22 retrieved. These documents are then ranked as in FF 08.
- 23 10. Ishikawa does not describe identifying information based on a  
24 measure exceeding a threshold.

1 PRINCIPLES OF LAW

2 *Claim Construction*

3 During examination of a patent application, pending claims are  
4 given their broadest reasonable construction consistent with the  
5 specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In*  
6 *re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

7 Limitations appearing in the specification but not recited in the claim  
8 are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d  
9 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted “in view of the  
10 specification” without importing limitations from the specification into the  
11 claims unnecessarily).

12 Although a patent applicant is entitled to be his or her own  
13 lexicographer of patent claim terms, in *ex parte* prosecution it must be  
14 within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant  
15 must do so by placing such definitions in the specification with sufficient  
16 clarity to provide a person of ordinary skill in the art with clear and precise  
17 notice of the meaning that is to be construed. *See also In re Paulsen*, 30  
18 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the  
19 specific terms used to describe the invention, this must be done with  
20 reasonable clarity, deliberateness, and precision; where an inventor chooses  
21 to give terms uncommon meanings, the inventor must set out any  
22 uncommon definition in some manner within the patent disclosure so as to  
23 give one of ordinary skill in the art notice of the change).

24 *Enablement*

25 The test of enablement is whether one reasonably skilled in the art  
26 could make and use the claimed invention based on the specification coupled

1 with information known in the art without undue experimentation.

2 *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384  
3 (Fed. Cir. 1986), *cert. denied*, 107 S.Ct. 1606 (1987).

4 *Indefiniteness*

5 If a claim is amenable to construction, “even though the task may be  
6 formidable and the conclusion may be one over which reasonable persons  
7 will disagree,” the claim is not indefinite. *Exxon Res. & Eng’g Co. v. United*  
8 *States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

9 *Obviousness*

10 A claimed invention is unpatentable if the differences between it and  
11 the prior art are “such that the subject matter as a whole would have been  
12 obvious at the time the invention was made to a person having ordinary skill  
13 in the art.” 35 U.S.C. § 103(a) (2000); *KSR Int’l v. Teleflex Inc.*, 127 S.Ct.  
14 1727, 1729-30 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14  
15 (1966).

16 In *Graham*, the Court held that that the obviousness analysis is  
17 bottomed on several basic factual inquiries: “[1] the scope and content of  
18 the prior art are to be determined; [2] differences between the prior art and  
19 the claims at issue are to be ascertained; and [3] the level of ordinary skill  
20 in the pertinent art resolved.” 383 U.S. at 17. *See also KSR Int’l v. Teleflex*  
21 *Inc.*, 127 S.Ct. at 1734. “The combination of familiar elements according to  
22 known methods is likely to be obvious when it does no more than yield  
23 predictable results.” *KSR*, at 1739.

24 “When a work is available in one field of endeavor, design incentives  
25 and other market forces can prompt variations of it, either in the same field  
26 or [in] a different one. If a person of ordinary skill [in the art] can

1 implement a predictable variation, § 103 likely bars its patentability.” *Id.* at  
2 1740.

3 “For the same reason, if a technique has been used to improve one  
4 device, and a person of ordinary skill in the art would recognize that it would  
5 improve similar devices in the same way, using the technique is obvious  
6 unless its actual application is beyond his or her skill.” *Id.*

7 “Under the correct analysis, any need or problem known in the field  
8 of endeavor at the time of invention and addressed by the patent can provide  
9 a reason for combining the elements in the manner claimed.” *Id.* at 1742.

10 ANALYSIS

11 *Claim 1 rejected under 35 U.S.C. § 112, first paragraph, as not enabling a*  
12 *person of ordinary skill in the art to make and use the claimed subject*  
13 *matter from the original disclosure.*

14 The Examiner has failed to make out a prima facie case of a lack of  
15 enablement. As best we understand it, the Examiner takes the position that  
16 the claimed method is inoperable if the term “same” used in claim 1 means  
17 identical. However, the test for enablement is whether one reasonably skilled  
18 in the art could make and use the claimed invention based on the  
19 specification coupled with information known in the art without undue  
20 experimentation, not whether the Examiner has interpreted the claim so as to  
21 read on an inoperable embodiment. The Examiner does not appear to have  
22 considered the Specification and thus has not established that one reasonably  
23 skilled in the art could *not* make and use the claimed invention based on the  
24 specification coupled with information known in the art without undue  
25 experimentation. It is examiner’s burden to show that one skilled in the art

1 would have to resort to undue experimentation in order to practice the  
2 invention as broadly claimed. See *In re Marzocchi*, 439 F.2d 220, 224, 169  
3 USPQ 367, 370 (CCPA 1971).

4 The Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, first  
5 paragraph, as not enabling a person of ordinary skill in the art to make and  
6 use the claimed subject matter from the original disclosure.

7 *Claim 1 rejected under 35 U.S.C. § 112, second paragraph, as failing to*  
8 *particularly point out and distinctly claim the invention.*

9 The Examiner found that the Appellant gave the word “same” a  
10 meaning different from identical, and further found the use of the word  
11 “same” to be indefinite because claim 1 is not specific regarding which  
12 definition applies (Answer 5).

13 The Appellant contends that its use of the term "same" in the context  
14 of "units of the same item" is consistent with its ordinary and customary  
15 meaning. Taking an item example of the Specification, a same item might  
16 be an item of the exact same model. This understanding of the term "units  
17 of the same item" is consistent both with the ordinary meaning of the term  
18 "same" and with the use of the term in the Specification itself (Appeal Br.  
19 7:Bottom ¶ - 8:Top ¶).

20 We agree that one of ordinary skill would have known that a same  
21 item would be something like an item with the same model number.  
22 Although this is merely an example, one of ordinary skill in sales and  
23 auctions would understand the word “same” applied to “item” to be within  
24 the context of the items sold or auctioned. While the term is broad, it is  
25 amenable to construction.



1           The Examiner cites Ishikawa column 7, line 53 to column 8 line 9 and  
2 column 11, lines 33-45 for identifying information where the sum of the  
3 inverse document frequencies of the selected terms that occur in the item  
4 description for the auction exceeds a threshold. The Appellant argues this  
5 portion of Ishikawa examines Ishikawa's importance degrees, not its inverse  
6 document frequency, and the Examiner never has a finding as to identifying  
7 by exceeding a threshold. We agree (FF 08, 10, and 06). Since the Examiner  
8 has not shown that either reference identifies information where the sum of  
9 the inverse document frequencies of the selected terms that occur in the item  
10 description for the auction exceeds a threshold, the Examiner has not made a  
11 prima facie case as to element [7].

12           The Appellant has sustained its burden of showing that the Examiner  
13 erred in rejecting claims 1, 56, and 57 under 35 U.S.C. § 103(a) as  
14 unpatentable over Phillips, Sato, and Ishikawa.

15 *Claim 2*

16           The Appellant argues claims 2-36 as a group.

17           Accordingly, we select claim 2 as representative of the group.

18           The Examiner found that Phillips described identifying purchasing  
19 opportunities and element [5]. The Examiner found that Sato described  
20 elements [1] and [2], and that Ishikawa describes elements [3] and [4]  
21 (Answer 7-8).

22           The Appellant contends that (1) Ishikawa's key words are (1a)  
23 selected by a user rather than from an item description, and (1b) are  
24 computed differently than as computed in the Appellant's Specification  
25 (Reply Br. 13:First ¶); (2) that Ishikawa fails to use term scores in the two

1 distinct ways recited in claim 2 of (2a) selecting keywords and (2b) scoring  
2 purchasing opportunities (Reply Br. 13:Bottom ¶ - 14:Top ¶); and (3)  
3 Phillips relies on product categories rather than product descriptions to find  
4 products (Appeal Br. 15).

5 As to the arguments regarding the search terms, the scope of the claim  
6 is not commensurate with argument (1a) because the terms a user enters in  
7 Ishikawa (FF 09), within the context of searching for an item as a purchasing  
8 opportunity, such as in Phillips, would be descriptive information associated  
9 with a a purchasing opportunity as in claim 2. Whether the terms are  
10 selected by a user makes terms no less associated with the item the terms  
11 describe. Whether the score for search terms are computed as in the  
12 Appellant's Specification is not pertinent since claims are construed  
13 according to their broadest reasonable interpretation during examination, and  
14 claim 2 does not specify the steps in scoring.

15 As to the arguments regarding the use of the scores, although both  
16 Sato and Ishikawa score keywords, it is Sato, not Ishikawa, that ranks  
17 keywords for searching (FF 05) and Ishikawa that ranks the results based on  
18 the sum of keyword scores (FF 08) that would represent purchasing  
19 opportunities within the context of searching for such opportunities. Thus,  
20 Sato teaches choosing the best search terms as in claim elements [1] and [2]  
21 and Ishikawa describes ranking results as in claim elements [3] and [4].

22 As to the argument regarding product category versus product  
23 description searching, although Phillips does not explicitly recite searching  
24 for items, the very presence of Phillips information in a web based document  
25 suggests one of ordinary skill would have alternatively employed the

1 ubiquitous search engines such as in Sato and Ishikawa to find products if  
2 one was not already on the Phillips web site.

3 The Appellant has not sustained its burden of showing that the  
4 Examiner erred in rejecting claims 2-36 under 35 U.S.C. § 103(a) as  
5 unpatentable over Phillips, Sato and Ishikawa.

6 CONCLUSIONS OF LAW

7 The Appellant has sustained its burden of showing that the Examiner  
8 erred in rejecting claims 1, 56, and 57, but has not sustained its burden of  
9 showing that the Examiner erred in rejecting claims 2-36, under 35 U.S.C. §  
10 103(a) as unpatentable over Phillips, Sato, and Ishikawa.

11 DECISION

12 To summarize, our decision is as follows:

- 13 • The rejection of claim 1 under 35 U.S.C. § 112, first paragraph, as not  
14 enabling a person of ordinary skill in the art to make and use the  
15 claimed subject matter from the original disclosure is not sustained.
- 16 • The rejection of claim 1 under 35 U.S.C. § 112, second paragraph, as  
17 failing to particularly point out and distinctly claim the invention is  
18 not sustained.
- 19 • The rejection of claims 1, 56, and 57 under 35 U.S.C. § 103(a) as  
20 unpatentable over Phillips, Sato, and Ishikawa is not sustained.
- 21 • The rejection of claims 2-36 under 35 U.S.C. § 103(a) as unpatentable  
22 over Phillips, Sato, and Ishikawa is sustained.

