# Exhibit 44

JC962 U.S. PTO

12/11/01

12-18-01

A
Box/Seq

"Express Mail" mailing label number EL920879897US.
Date of Deposit December 11, 2001

C503 U.S. PTO
10/020712
12/11/01

Case No. 9623/378

# PATENT APPLICATION TRANSMITTAL LETTER

To the Commissioner for Patents:

Transmitted herewith for filing is the patent application of: Mark Paine, Winton Davies, Don Geddis, Jon Dukes-Schlossberg and Darren Davis for : RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING. Enclosed are:

- ☒ 20 sheet(s) of drawings, 60 pages of application (including title page), and the following Appendices : two identical compact discs marked COPY 1 and COPY 2 and having a CD-R appendix containing computer source code in IBM-PC format compatible with MS-Windows operating system; a list of the 37,913 files contained on the compact discs is provided in a file at the top directory level of each compact disc in a file called "dir_s".
- ☐ Declaration.
- ☐ Power of Attorney.
- ☐ Verified statement to establish small entity status under 37 CFR §§ 1.9 and 1.27.
- ☐ Assignment transmittal letter and Assignment of the invention to : _____.
- ☒ Petition under 37 C.F.R. § 1.183, with check for $130.00.

| Claims as Filed | Col. 1 | Col. 2 |
|---|---|---|
| For | No. Filed | No. Extra |
| Basic Fee | | |
| Total Claims | 64-20 | 44 |
| Indep. Claims | 10-3 | 7 |
| Multiple Dependent Claims Present | | |

If the difference in col. 1 is less than zero, enter "0" in col. 2.

| Small Entity | | | Other Than Small Entity | |
|---|---|---|---|---|
| Rate | Fee | or | Rate | Fee |
| | $ 370 | or | | $ 740 |
| x$9= | $396 | or | x$18= | $ |
| x$42= | $294 | or | x$84= | $ |
| +$140= | $ | or | +$280= | $ |
| Total | $1060 | or | Total | $ |

- ☐ Please charge my Deposit Account No. 23-1925 in the amount of $: _____. A duplicate copy of this sheet is enclosed.
- ☒ A check in the amount of $: 1060.00 to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.
  - ☒ Any additional filing fees required under 37 CFR § 1.16.
  - ☒ Any patent application processing fees under 37 CFR §1.17.
- ☐ The Commissioner is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.
  - ☐ Any filing fees under 37 CFR § 1.16 for presentation of extra claims.
  - ☐ Any patent application processing fees under 37 CFR § 1.17.
  - ☐ The issue fee set in 37 CFR § 1.18 at or before mailing of the Notice of Allowance, pursuant to 37 CFR § 1.311(b).

Dec. 11, 2001
Date

John G. Rauch
BRINKS HOFER GILSON & LIONE
Registration No. 37,218

Rev. Oct-01
F:\COMMON\Jgr\Goto - 9623\Eight Ball\9623-378 patent application transmittal.doc

# Freeform Search

**Database:**
US Pre-Grant Publication Full-Text Database
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IBM Technical Disclosure Bulletins

**Term:** L74 and @ad<19990528

**Display:** 50 **Documents in Display Format:** - **Starting with Number** 1

**Generate:** ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search | Clear | Interrupt

## Search History

**DATE: Wednesday, February 18, 2004** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L75 | L74 and @ad<19990528 | 1 | L75 |
| L74 | search near3 results near4 bid$4 | 31 | L74 |
| L73 | L72 and (search near3 terms) | 2 | L73 |
| L72 | L71 and @ad<19990528 | 157 | L72 |
| L71 | banner near3 advertis$3 | 917 | L71 |
| L70 | L69 and @ad<19990528 | 10153 | L70 |
| L69 | banner | 18205 | L69 |
| L68 | L66 and advertis$4 | 22 | L68 |
| L67 | L66 and advertis$4.ab. | 1 | L67 |
| L66 | L65 and @ad<19990528 | 132 | L66 |
| L65 | bid$4 same search$3 | 633 | L65 |
| L64 | L63 and @ad<19990528 | 0 | L64 |
| L63 | advertiser same bid$4 same search$3 | 28 | L63 |
| L62 | L61 and @ad<19990528 | 0 | L62 |
| L61 | advertiser near3 bid$4 with search$3 | 21 | L61 |
| L60 | L59 and @ad<19990528 | 0 | L60 |

| | | | |
|---|---|---|---|
| L59 | advertiser near3 bid$4 near3 search | 20 | L59 |
| L58 | L56 and @ad<19990528 | 9 | L58 |
| L57 | L56 and @ad<19990528 | 9 | L57 |
| L56 | meta tag near3 web near3 page | 50 | L56 |
| L55 | L54 and @ad<19990528 | 2 | L55 |
| L54 | L52 and filter$3 | 50 | L54 |
| L53 | L52 same filter$3 | 4 | L53 |
| L52 | meta tag near3 page | 114 | L52 |
| L51 | L50 and @ad<19990528 | 3 | L51 |
| L50 | L46 and filter$3.ab. | 16 | L50 |
| L49 | L476and filter$3.ab. | 0 | L49 |
| L48 | L47 and filter$3.ab. | 0 | L48 |
| L47 | L46 and 6314420.pn. | 0 | L47 |
| L46 | meta tag | 412 | L46 |
| L45 | L43 and (crawling or spidering) | 5 | L45 |
| L44 | L43 and (crawling or spidering) | 5 | L44 |
| L43 | L40 and @ad<19990528 | 72 | L43 |
| L42 | L41 and (crawling or spidering) | 18 | L42 |
| L41 | L40 and ad<19990528 | 751 | L41 |
| L40 | website near3 url | 751 | L40 |
| L39 | L38 and @ad<19990528 | 4 | L39 |
| L38 | url near3 (crawling or spidering) | 21 | L38 |
| L37 | website same url same (crawling or spidering) | 12 | L37 |
| L36 | webite same url same (crawling or spidering) | 0 | L36 |
| L35 | webite near3 url near3 crawling | 0 | L35 |
| L34 | webite near3 url near3 spidering | 0 | L34 |
| L33 | L30 and collaborative | 4 | L33 |
| L32 | L30 and filter$3.ab. | 0 | L32 |
| L31 | L30 and collaborative.ab. | 0 | L31 |
| L30 | L29 and @ad<19990528 | 72 | L30 |
| L29 | website near3 url | 751 | L29 |
| L28 | L26 and collaborative | 7 | L28 |
| L27 | L25 and collaborative | 53 | L27 |
| L26 | L25 and @ad<19990528 | 61 | L26 |
| L25 | filter$3 near3 url | 228 | L25 |
| L24 | L23 and @ad<19990528 | 53 | L24 |
| L23 | L22 and (collaborative near3 filter$3) | 143 | L23 |
| L22 | url | 20793 | L22 |
| L21 | 5867799.pn. and URL | 0 | L21 |
| L20 | L13 and URL | 0 | L20 |
| L19 | L18 and @ad<20000101 | 48 | L19 |

| | | | |
|---|---|---|---|
| L18 | L17 and browser and address and line | 134 | L18 |
| L17 | string near3 complet$3 | 3688 | L17 |
| L16 | L13 and rating | 1 | L16 |
| L15 | L13 and advert$7 | 1 | L15 |
| L14 | L13 and advert$5 | 0 | L14 |
| L13 | 6314420.pn. | 1 | L13 |
| L12 | version near3 tag | 406 | L12 |
| L11 | (andrew near2 lang).in. | 20 | L11 |
| L10 | L9 and @ad<19990528 | 25 | L10 |
| L9 | lycos.as. | 36 | L9 |
| L8 | 6314420.pn. and rating | 1 | L8 |
| L7 | L6 and rating | 1 | L7 |
| L6 | 5867799.pn. | 1 | L6 |
| L5 | L4 and @ad<19990528 | 18 | L5 |
| L4 | average same rating same (search or query) | 49 | L4 |
| L3 | average near3 rating near3 (search or query) | 3 | L3 |
| L2 | L1 and predict$3 | 1 | L2 |
| L1 | 10/020712 | 1 | L1 |

END OF SEARCH HISTORY

# Refine Search

**Search Results -**

| Terms | Documents |
|---|---|
| L6 and equivalent | 1 |

**Database:**
US Pre-Grant Publication Full-Text Database
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EPO Abstracts Database
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IBM Technical Disclosure Bulletins

**Search:** L7

Refine Search

Recall Text | Clear | Interrupt

**Search History**

**DATE: Wednesday, February 18, 2004** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L7 | L6 and equivalent | 1 | L7 |
| L6 | 5404507.pn. | 1 | L6 |
| L5 | ('6282548' \|'6078916')!.PN. | 2 | L5 |
| L4 | L3 and addition$4 | 3 | L4 |
| L3 | ('6457009' \|'6415281' \|'6282548' \|'6078916')!.PN. | 4 | L3 |
| L2 | L1 and @ad<19990528 | 29 | L2 |
| L1 | advertiser near6 search | 142 | L1 |

END OF SEARCH HISTORY

# Freeform Search

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Term:** (andrew near2 lang).in.

**Display:** 50 **Documents in Display Format:** - **Starting with Number** 1

**Generate:** Hit List Hit Count Side by Side Image

Search Clear Interrupt

## Search History

**DATE: Wednesday, February 18, 2004** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L11 | (andrew near2 lang).in. | 20 | L11 |
| L10 | L9 and @ad<19990528 | 25 | L10 |
| L9 | lycos.as. | 36 | L9 |
| L8 | 6314420.pn. and rating | 1 | L8 |
| L7 | L6 and rating | 1 | L7 |
| L6 | 5867799.pn. | 1 | L6 |
| L5 | L4 and @ad<19990528 | 18 | L5 |
| L4 | average same rating same (search or query) | 49 | L4 |
| L3 | average near3 rating near3 (search or query) | 3 | L3 |
| L2 | L1 and predict$3 | 1 | L2 |
| L1 | 10/020712 | 1 | L1 |

END OF SEARCH HISTORY

# Refine Search

**Search Results -**

| Terms | Documents |
|---|---|
| 5867799.pn. and URL | 0 |

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Search:** L21

Refine Search

Recall Text | Clear | Interrupt

**Search History**

**DATE: Wednesday, February 18, 2004** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L21 | 5867799.pn. and URL | 0 | L21 |
| L20 | L13 and URL | 0 | L20 |
| L19 | L18 and @ad<20000101 | 48 | L19 |
| L18 | L17 and browser and address and line | 134 | L18 |
| L17 | string near3 complet$3 | 3688 | L17 |
| L16 | L13 and rating | 1 | L16 |
| L15 | L13 and advert$7 | 1 | L15 |
| L14 | L13 and advert$5 | 0 | L14 |
| L13 | 6314420.pn. | 1 | L13 |
| L12 | version near3 tag | 406 | L12 |
| L11 | (andrew near2 lang).in. | 20 | L11 |
| L10 | L9 and @ad<19990528 | 25 | L10 |
| L9 | lycos.as. | 36 | L9 |
| L8 | 6314420.pn. and rating | 1 | L8 |

| | | | |
|---|---|---|---|
| L7 | L6 and rating | 1 | L7 |
| L6 | 5867799.pn. | 1 | L6 |
| L5 | L4 and @ad<19990528 | 18 | L5 |
| L4 | average same rating same (search or query) | 49 | L4 |
| L3 | average near3 rating near3 (search or query) | 3 | L3 |
| L2 | L1 and predict$3 | 1 | L2 |
| L1 | 10/020712 | 1 | L1 |

END OF SEARCH HISTORY

# Freeform Search

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Term:** 6314420.pn. and thesaurus

**Display:** 50 **Documents in Display Format:** - **Starting with Number** 1

**Generate:** ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search Clear Interrupt

## Search History

**DATE: Thursday, February 19, 2004** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L13 | 6314420.pn. and thesaurus | 1 | L13 |
| L12 | L10 and thes$7 | 0 | L12 |
| L11 | L10 and thesaurus | 0 | L11 |
| L10 | 5404507.pn. | 1 | L10 |
| L9 | L7 and filter$3 | 1 | L9 |
| L8 | L7 and (crawl$3 or spider$3) | 1 | L8 |
| L7 | 5933822.pn. | 1 | L7 |
| L6 | priorit$5 near5 (id or identification or serial or number) | 20450 | L6 |
| L5 | L4 and @ad<19990528 | 17 | L5 |
| L4 | web site near3 (spider$ or crawl$3) | 161 | L4 |
| L3 | web site near3 search near3 (spider$ or crawl$3) | 29 | L3 |
| L2 | L1 and spider$3 | 1 | L2 |
| L1 | 10/020712 | 1 | L1 |

END OF SEARCH HISTORY

# Freeform Search

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Term:** L21 and bid

**Display:** 50 **Documents in Display Format:** - **Starting with Number** 1

**Generate:** Hit List Hit Count Side by Side Image

Search Clear Interrupt

## Search History

**DATE: Friday, February 20, 2004** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L22 | L21 and bid | 1 | L22 |
| L21 | 6078866.pn. | 1 | L21 |
| L20 | L19 and keyword | 11 | L20 |
| L19 | L18 and website | 15 | L19 |
| L18 | L17 and @ad<19990528 | 69 | L18 |
| L17 | meta tag or meta-tag | 412 | L17 |
| L16 | L12 and tag | 0 | L16 |
| L15 | L12 and meta-tag | 0 | L15 |
| L14 | L12 and metatag | 0 | L14 |
| L13 | L12 and meta | 0 | L13 |
| L12 | 6141101.pn. | 1 | L12 |
| L11 | L10 and url | 1 | L11 |
| L10 | 6141653.pn. | 1 | L10 |
| L9 | L3 and url | 0 | L9 |
| L8 | L3 and meaning | 0 | L8 |
| L7 | L3 and synonym | 0 | L7 |

| | | | |
|---|---|---|---|
| L6 | L3 and thesaurus | 0 | L6 |
| L5 | Ls and thesaurus | 498 | L5 |
| L4 | L3 and predicting | 0 | L4 |
| L3 | 5799268.pn. | 1 | L3 |
| L2 | L1 and advertiser | 1 | L2 |
| L1 | 6269361.pn. | 1 | L1 |

END OF SEARCH HISTORY

Search Results

Search Results for: **[spidering <AND>((collaborative <near> filter<AND> ((recommending <near> search <near> term) )) )]**
Found **7** of **127,132 searched.**

Search within Results

> Advanced Search

> Search Help/Tips

**Sort by:** Title Publication Publication Date Score Binder

**Results 1 - 7 of 7** short listing

**1** Building task-specific interfaces to high volume conversational data 52%
Loren G. Terveen , William C. Hill , Brian Amento , David McDonald , Josh Creter
**Proceedings of the SIGCHI conference on Human factors in computing systems** March 1997

**2** World Wide Web: Using navigation data to improve IR functions in the context of web search 21%
Mark H. Hansen , Elizabeth Shriver
**Proceedings of the tenth international conference on Information and knowledge management** October 2001

As part of the process of delivering content, devices like proxies and gateways log valuable information about the activities and navigation patterns of users on the Web. In this study, we consider how this navigation data can be used to improve Web search. A query posted to a search engine together with the set of pages accessed during a search task is known as a *search session*. We develop a mixture model for the observed set of search sessions, and propose variants of the classical EM a ...

**3** Strategic directions in electronic commerce and digital libraries: towards a digital agora 14%
Nabil Adam , Yelena Yesha
**ACM Computing Surveys (CSUR)** December 1996
Volume 28 Issue 4

**4** SIFTER-II: a heterogeneous agent society for information filtering 6%
Rajeev R. Raje , Mingyong Qiao , Snehasis Mukhopadhyay
**Proceedings of the 2001 ACM symposium on Applied computing** March 2001

5%

# UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/020,712 | 12/11/2001 | Mark Paine | 9623/378 | 1404 |

757 7590 01/19/2005

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

| EXAMINER |
|---|
| LEROUX, ETIENNE PIERRE |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2161 | |

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/020,712 | PAINE ET AL. | |
| | Examin r | Art Unit | |
| | Etienne P LeRoux | 2161 | |

*-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/4/2004*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

### *Claim Status:*

Claims 1-64 are pending. Claim 65 has been cancelled. Claims 1-64 are rejected as detailed below.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites "determining candidate search terms based on search terms of other advertisers on the database system." The specification does not contain a clear and concise computer-implemented method of choosing candidate search terms based on search terms of other advertisers such that the skilled artisan can make and use the invention.

Claim 1 recites "recommending the additional search terms from among the candidate search terms. The specification does not include a clear and concise computer-implemented method of recommending additional search terms selected from the candidate search terms such that the skilled artisan can make and use the invention. For purposes of this Office Action,

examiner will assume that there exists no difference between candidate search terms and additional search terms.

Claims 2-4 are rejected for being dependent from a rejected base claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the following:

- receiving a list of search terms associated with an advertiser
- a plurality of search listings which are associated with an advertiser
- at least one search term
- determining candidate search terms based on search terms of other advertisers
- recommending additional search terms from among the candidate search terms

The scope of the invention cannot be determined because the relationship between above search terms/listings is difficult to determine. For purposes of this Office Action, examiner will assume that a first list of search terms drawn from a first web site is compared with a second list of search terms which are derived from web sites other than the first web site.

Claims 2-4 are rejected for being dependent from a rejected base claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-13, 15, 16, 18, 19, 21-43, 45-49 and 51-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,078,916 to Culliss (hereafter Culliss) in view of US Pat No 6,314,420 to Lang et al (hereafter Lang)

<u>Claims 1, 41, 46 and 59:</u>

Culliss discloses:

- receiving a list of search terms [key words, col 17, line 45, col 5, lines 32-35] associated with an advertiser [col 17, lines 43-48] on the database search system, the database search system including a database having stored therein a plurality of search listings [key words, col 17, line 45] which are associated with an advertiser, at least one search term

[key word col 17, line 45], a money amount [col 17, line 46] and a computer network location [col 4, line 65 – col 5, line 10]

Culliss discloses the essential elements of the claimed invention as noted above except for determining candidate search terms based on search terms of other advertisers on the database search system and recommending the additional search terms from among the candidate search terms. Lang discloses determining candidate search terms based on search terms of other advertisers on the database search system [spider scanning + content filter, col 1, lines 23-26] and recommending the additional search terms from among the candidate search terms [collaborative filtering, col 1, lines 40-45]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Culliss to include determining candidate search terms based on search terms of other advertisers on the database search system and recommending the additional search terms from among the candidate search terms as taught by Lang for the purpose of providing better search responses to user queries [Lang, col 1, lines 10-16].

Claim 2:

The combination of Culliss and Lang discloses the elements of claim 1 as noted above.

The combination of Culliss and Lang discloses assigning ratings to search terms, computing a correlation between the advertiser and one or more of the other advertisers, using the assigned ratings of advertiser search terms [Lang, informons compared to individual user's query, informons are ranked, col 1, line 65 – col 2, line 3]

Claim 3:

The combination of Culliss and Lang discloses the elements of claims 1 and 2 as noted above and furthermore discloses predicting a likelihood that a candidate search term will be relevant to the advertiser [Lang, Fig 1, 33]

Claim 4:

The combination of Culliss and Lang discloses the elements of claims 1-3 as noted above and furthermore discloses determining a quality metric for the candidate search terms and predicting relevance of candidate search terms based on the quality metric [Lang, ranking col 1, line 65 – col 2, line 4]

Claim 5:

Culliss discloses maintaining a database of search listings, each search listing being associated with an advertiser and including associated search terms[col 17, line 45, col 5, lines 32-35], a money amount [col 17, line 46] and a computer network location [col 4, line 65 – col 5, line 10], receiving a list of search terms associated with an advertiser [key words, col 17, line 45, col 5, lines 32-35]

Culliss discloses the essential elements of the claimed invention as noted above except for computing ratings for search terms and recommending additional search terms to the advertiser based on the computed ratings. Lang discloses computing ratings for search terms and recommending additional search terms to the advertiser based on the computed ratings [col 1, line 65 – col 2, line 3]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Culliss to include computing ratings for search terms and recommending additional search terms to the advertiser based on the computed ratings as taught

by Lang for the purpose of providing better search responses to user queries [Lang, col 1, lines 10-16].

Claim 6 and 47:

The combination of Culliss and Lang discloses the elements of claims 5 and 46 as noted above and furthermore assigning ratings to search terms [Lang, col 1, line 65 – col 2, line 3]

Claims 7 and 48:

The combination of Culliss and Lang discloses the elements of claims 5 and 46 as noted above and furthermore predicting ratings for search terms [Lang, col 1, line 65 – col 2, line 3]

Claim 8:

The combination of Culliss and Lang discloses the elements of claim 8 as noted above and furthermore receiving a list of initial search terms from the advertiser [Lang, col 17, line 45]

Claim 9:

The combination of Culliss and Lang discloses identifying an existing advertiser on the database search system and forming the list of search terms from search terms of the existing advertiser [Lang, col 17, line 45].

Claim 10:

The combination of Culliss and Lang discloses the essential elements of claim 5 and receiving a website URL [Culliss, col 29, lines 30-45].

Claim 11:

The combination of Culliss and Lang discloses the essential elements of claim 5 and receiving data from pages of the website [Lang, col 1, lines 10-15], recording candidate search

terms from the data [Lang spider scanning + content filter, col 1, lines 23-26], and determining a quality metric for each search term [Lang, ranking, col 1, line 65 – col 2, line 4]

Claims 12:

The combination of Culliss and Lang discloses the elements of claims 5, 10 and 11 and sorting the candidate search terms according to the quality metric and recommending only candidate search terms having a quality metric exceeding a threshold [Lang, col 9, lines 1-15]

Claim 13:

The combination of Culliss and Lang discloses the elements of claims 5 and 10 as noted above Lang discloses receiving data from one or more pages of the site and examining text from the one or more pages for candidate search terms [Lang, col 1, lines 10-16]

Claim 15:

The combination of Culliss and Lang discloses the elements of claims 5, 10 and 13 as noted above and furthermore, receiving the advertiser's URL as the web site URL [Culliss, col 29, lines 30-45].

Claim 16:

The combination of Culliss and Lang discloses the elements of claims 5, 10 and 13 as noted above and furthermore, receiving the web site URL from the advertiser [Culliss, col 29, lines 30-45].

Claim 18:

Culliss discloses a database of search terms, each search term being associated with one or more advertisers, a money amount and a computer network location, the search terms being searchable in response to a query from a user to identify search terms which match the query, matching search listings being returnable to the user in a search result list in which the matching search listings are ordered using the money amounts for the respective matching search listings [key words, col 17, line 45, col 17, lines 43-48]. Culliss discloses the essential elements of the claimed invention as noted above except for program code configured to recommend additional search terms for an advertiser based on search terms in the database program code configured to recommend additional search terms for an advertiser based on search terms in the database [inherent in Fig 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Culliss to include program code configured to recommend additional search terms for an advertiser based on search terms in the database as taught by Lang for the purpose of providing better search responses to user queries [Lang, col 1, lines 10-16].

Claim 19:

The combination of Culliss and Lang discloses the elements of claim 18 as noted above and furthermore discloses collaborative filtering code configured to recommend the additional search terms based on search terms associated with other advertisers of the database search system [Lang, Fig 4, 260].

Claim 21:

The combination of Culliss and Lang discloses the elements of claims 18 and 19 as noted above and furthermore the program code comprises a program loop [Lang, Fig 4].

Claim 22:

The combination of Culliss and Lang discloses the elements of claims 18, 19 and 21 as noted above and furthermore, code to accept indications or reject indications from the advertiser before repeating the program loop [Lang Fig 3, step 115].

Claim 23:

The combination of Culliss and Lang discloses the elements of claims 18 as noted above and furthermore, spidering code to recommend the additional search terms [Lang, col 1, lines 60-65]

Claim 24:

The combination of Culliss and Lang discloses the elements of claim 18 as noted above and furthermore, spidering code to find initially accepted search terms in a web site; and collaborative filtering code to provide the recommended additional search terms [receiving a data stream from a computer network, [Lang col 1, line 45 – col 2, line 3].

Claim 25:

The combination of Culliss and Lang discloses the elements of claims 18 and 24 as noted above and furthermore, wherein the spidering code is configured to spider a web site of the advertiser [Lang col 1, line 45 – col 2, line 3].

Claim 26:

The combination of Culliss and Lang discloses the elements of claims 18 and 23 as noted above and furthermore, wherein the spidering code is configured to spider a web site specified by the advertiser [Lang, col 1, line 45 – col 2, line 3].

Claim 27:

The combination of Culliss and Lang discloses the elements of claims 18 as noted above and furthermore, filtering code to filter candidate search terms according to a quality metric to produce the recommended additional search terms [Lang, Fig 6, 427, 430 432].

Claim 28:

The combination of Culliss and Lang discloses the elements of claims 5, 10, 13 and 15 as noted above and furthermore, search engine program code configured to search the database in response to a search query from a user [Lang, information filtering per col 8, lines 4-13].

Claim 29:

The combination of Culliss and Lang discloses spidering a specified web site to obtain an initial list of advertiser search terms for an advertiser [Lang col 1, line 45 – col 2, line 3], filtering the initial list of advertiser search terms using search terms of other advertisers [Lang col 1, line 45 – col 2, line 3], storing in a search listing database search listings for the advertiser [Lang, Fig 1, 31], the search listings formed with the filtered search terms [Lang col 1, line 45 – col 2, line 3], the search listing database being searchable by a search engine web server which identifies listings having a search term matching a search query entered by a user [Lang, Fig 3], orders the identified listings using advertiser bid amounts associated with the search term

in the search listing and generates a result list including at least some of the ordered listings [Culliss col 17, lines 43-48]

Claim 30:

The combination of Culliss and Lang discloses the elements of claim 29 as noted above and furthermore, wherein the specified web site comprises an advertiser specified website [Lang, col 2, lines 20-27, web sites are inherently advertiser web sites]

Claim 31:

The combination of Culliss and Lang discloses the elements of claim 29 as noted above and furthermore, wherein the specified web site comprises a web site specified by the database search system [Lang, col 2, lines 20-27].

Claim 32:

The combination of Culliss and Lang discloses the elements of claim 29 as noted above and furthermore, assigning ratings to search terms and computing a correlation between the advertiser and one or more of the other advertisers and using the assigned ratings of advertiser search terms [Lang, informons compared to individual user's query, informons are ranked, col 1, line 65 – col 2, line 3]

Claim 33:

The combination of Culliss and Lang discloses the elements of claims 29 and 32 as noted above and furthermore, predicting a likelihood that a search term will be relevant to the advertiser [Lang , Fig 1, 33]

Claim 34:

The combination of Culliss and Lang discloses the elements of claims 29, 32 and 33 as noted above and furthermore, determining a quality metric for candidate search terms and predicting a relevance of candidate search terms based on the quality metric [Lang, ranking col 1, line 65 – col 2, line 4]

Claim 35:

The combination of Culliss and Lang discloses the elements of claims 29 as noted above and furthermore, wherein spidering the specified web site comprises: receiving data from pages of the specified website [Lang, inherently disclosed in internet connections of claim 88]; recording candidate search terms from the data [Lang, information filtering per col 8, lines 4-13]; and determining a quality metric for each candidate search term [Lang, Fig 6, 427, 430, 432].

Claim 36:

The combination of Culliss and Lang discloses he elements of claims 29 and 35 as noted above and furthermore, sorting the candidate search terms according to the quality metric and recommending only candidate search terms having a quality metric exceeding a threshold [Lang, col 9, lines 1-15].

Claim 37:

The combination of Culliss and Lang discloses the elements of claims 29 as noted above and furthermore, determining a correlation between a web site of the advertiser and web sites of other advertisers on the database system [Lang, Fig 4, 260], using the correlation [Lang, Fig 4, 260], determining ratings for each advertiser search term in the initial list of the advertiser search terms and organizing search terms of the initial list of advertiser search terms according to the ratings [Lang, Fig 6, 427, 430 and 432].

Claims 38 and 39:

The combination of Culliss and Lang discloses the elements of claims 29 as noted above and furthermore, presenting the organized search terms to the advertiser and receiving advertiser acceptance indications for the organized search terms [Lang, presenting the proposed informon to the user, col 4, lines 43-63], adjusting the list of advertiser search terms according to the acceptance indications, filtering the adjusted list [Lang, adapting the content profile per col 4, lines 43-63].

Claim 40:

The combination of Culliss and Lang discloses the elements of claims 29 and 38 as noted above and furthermore, receiving a search query from a user [Lang, col 1, lines 10-15], searching for matching search terms in the search listing database [col 1, lines 15-33] , preparing search results by formatting search terms according to advertiser bid amounts associated with the matching search listings [Culliss, col 17, lines 43-48], communicating the search results to the user [Fig 2, 64b]

Claim 42:

The combination of Culliss and Lang discloses the elements of claim 41 as noted below and furthermore, matching one or more text strings from the received search term with a database of search terms [Lang, Fig 3]

Claim 43:

The combination of Culliss and Lang discloses the elements of claims 38 and 29 as noted above and furthermore, matching one or more text strings from the received term with a thesaurus [Lang, col 13, lines 35-50]

Claim 45:

The combination of Culliss and Lang discloses entering the selected search term as a default value in each of the one or more search listings [Lang, user profile per col 7, lines 31-54].

Claim 49:

The combination of Culliss and Lang discloses the elements of claim 46 as noted above and furthermore, computing correlations for the advertiser and the other advertisers based on the information describing the advertiser and information describing the other advertisers [Lang, Fig 6, 432], and recommending search terms based at least in part on the correlations [Lang, Fig 6, 432]

Claims 51-55:

The combination of Culliss and Lang discloses downloading web pages rooted at a specified uniform resource locator (URL) [Culliss col 29, lines 30-45] and recommending to an

advertiser who maintains search listings in the pay for placement market system search terms that appear in the body text of the web pages [Lang col 1, line 45 – col 2, line 3]

Claim 56:

The combination of Culliss and Lang discloses calculating a quality metric for candidate search terms, the quality metric for a respective candidate search term being a function of the respective search term's web frequency and a function of a search term's search frequency [Lang, col 10, lines 20-45] and recommending search terms for which the calculated quality metric exceeds a threshold [Lang, col 9, lines 1-15] .

Claim 57:

The combination of Culliss and Lang discloses the elements of claim 56 as noted above and furthermore, a second metric [Lang, collaborative filtering, col 2, lines 5-20].

Claim 58:

The combination of Culliss and Lang discloses the elements of claim 56 as noted above and furthermore, automatically calibrating the quality threshold [col 9, lines 1-20].

Claim 60:

The combination of Culliss and Lang discloses the elements of claim 59 as noted above and furthermore, determining candidate search terms by collaborative filtering and recommending search terms from the candidate search terms [Lang, col 1, line 45 – col 2, line 3]

Claims 61 and 62:

The combination of Culliss and Lang discloses the elements of claim 59 as noted above and furthermore, downloading web pages rooted at a uniform resource locator and recommending the search terms based on terms that appear in body text of the web pages [Culliss col 29, lines 30-45]

Claim 63:

The combination of Culliss and Lang discloses the elements of claims 59 and 63 and furthermore, calculating a quality metric for candidate search terms, the quality metric for a respective candidate search term being a function of the respective search term's web frequency and a function of a search term's search frequency, and recommending the search terms based on search terms for which the calculated quality metric exceeds a quality threshold [Lang, col 9, lines 1-21]

Claim 64:

The combination of Culliss and Lang discloses the elements of claim 59 as noted above and furthermore, receiving feedback from the advertiser on the recommended search terms; and changing the recommended search terms based on the feedback [Lang, col 4, lines 55-60].

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lang and Culliss and further in view of US Pat No 6,141,010 to Hoyle (hereafter Hoyle).

Claim 14:

The combination of Lang and Culliss discloses the elements of claims 5, 10 and 13 as noted above but fails to disclose examining meta tags from the one or more pages. Hoyle discloses examining meta tags from the one or more pages [col 15, line 54 through col 16, line 8]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Lang and Culliss to include examining meta tags from the one or more pages as taught by Hoyle. The ordinarily skilled artisan would have been motivated to modify the combination of Lang and Culliss per the above for the purpose of obtaining key words which are embedded in a web page.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lang and Culliss in view of US Pat No 6,078,866 issued to Buck et al (hereafter (Buck).

Claim 17:

The combination of Lang and Culliss discloses the elements of claim 5 as noted above. The combination of Lang and Culliss fails to disclose preparing search results by formatting matching search terms according to advertiser bid amounts associated with the search listings; and communicating the search results to the user. Buck discloses preparing search results by formatting matching search terms according to advertiser bid amounts associated with the search listings; and communicating the search results to the user [claim1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Culliss and Lang to include preparing search results by formatting matching search terms according to advertiser bid amounts associated with the search listings; and communicating the

search results to the user as taught by Buck. The ordinarily skilled artisan would have been motivated to modify the combination of Culliss and Lang per the above for the purpose of providing a means for generating revenue for the internet service provider.

Claims 20 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Culliss and Lang in view of US Pat No 5,872,850 to Klein et al (hereafter Klein).

Claim 20:

The combination of Culliss and Lang discloses the essential elements of the claimed invention as noted above in claims 18, 19 and except for assigning ratings to search terms and computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms. Klein discloses assigning ratings to search terms and computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms [col 10, lines 9-34]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Culliss and Lang to include assigning ratings to search terms and computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms as taught by Klein for the purpose of determining a similarity factor between two users [col 10, lines 9-13].

Claim 50:

The combination of Lang and Culliss discloses the elements of claims 18, 19, 46 and 49 as noted above. The combination of Lang and Culliss fails to disclose wherein the collaborative filtering code comprises Pearson correlation code. Klein discloses wherein the collaborative filtering code comprises Pearson correlation code [col 10, lines 9-34]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Culliss and Lang to include wherein the collaborative filtering code comprises Pearson correlation code as taught by Klein. The ordinarily skilled artisan would have been motivated to modify the combination of Culliss and Lang per the above for the purpose of determining a similarity factor between two users [col 10, lines 9-13].

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lang and Culliss in view of US Pat No 5,799,268 to Boguraev.

Claim 44:

The combination of Lang and Culliss discloses the elements of claim 41 as noted above. The combination of Lang and Culliss fails to disclose displaying a form for entering one or more search listings for a selected search term. Boguraev discloses displaying a form for entering one or more search listings for a selected search term [Fig 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Culliss and Lang to include displaying a form for entering one or more search listings for a selected search term as taught by Boguraev. The ordinarily skilled artisan would have been motivated to

modify Lang per the above for the purpose of providing a convenient means of inputting user data.

***Response to Arguments***

Applicant's arguments filed 8/4/2004 with respect to claims 1-64 have been considered but are moot in view of above new ground(s) of rejection necessitated by applicant's amendment. Nevertheless, it is expedient to consider the gist of applicant's comments.

**Applicant Argues:**

Applicant states in the third paragraph on page 15 "Lang is completely unrelated to a pay for placement marketplace. Lang actually relates to information filtering in a computer system receiving a data stream from a computer network. Entities of information relevant to a user, called 'informons,' are extracted from the data stream. Column 6, line 66 – column 7, line 4. Lang does not disclose any features of a pay for placement marketplace, such as advertisers, bid amounts, search listings, etc.

**Examiner Responds:**

Examiner is nt persuaded. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., pay for placement marketplace and bid amounts) are not recited in the amended claim 1. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**Applicant Argues:**

Applicant states in the third paragraph on page 16 "Thus, unlike the method and apparatus of amended claims 1-64 which relate to a pay for placement system relying on bid amounts chargeable to the system operator for an event such as a clickthrough, Buck instead discloses a subscription service."

**Examiner Responds:**

Examiner is not persuaded. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a pay for placement system relying on bid amounts chargeable to the system operator for an event such as a clickthrough) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Consider the following claim 1 limitation "at least one search term, a money amount and a computer network" in light of Buck's disclosure, col3, line 52 through column 4, line 39 which is reproduced as following:

> It is therefore a principal object of the present invention to devise a method and system for **Internet searching and indexing in which Web site owners can determine for themselves the rankings that their information or services should receive in competition with others**, and not through computation of a ranking based on arbitrary factors or subjective determination by a search service. It is a further object that the Web site owners be able to readily upgrade or downgrade their rankings based upon their assessment of market factors on an on-going basis. It is also desirable that this system be readily implemented at manageable cost and readily understood by users without having to accept a new search orthodoxy or unfamiliar change of search usage.

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> In accordance with the present invention, a method and system of network site searching and listing comprises a listing server connected to a network accessible by a plurality of users, having a site listings database containing a plurality of site listings, each of which is provided by a site listing subscriber and includes a title or description of the content of the respective site, a network address at which the site can be accessed on the network, **and a denominated value to be paid by the subscriber associated with the site listing while it is maintained on the listing server, wherein said listing server provides a search report of listings relevant to a search inquiry from a user in which the listings are ranked in order according to the denominated values associated with the listings.**

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> In the preferred embodiment, subscribers pay a **monetary amount of their own choosing as a subscription fee to list a site with the listing service for a defined subscription period. The higher the amount paid for a given subscription period in relation to other listers, the higher the site's ranking on the service's search reports.** Subscribers can monitor the ranking of their listings in relation to others, and can modify their rankings by raising or lowering their subscription fees, through a subscription monitoring interface provided with the listing server. Changes to the subscription fees, and consequently to the rankings, may be handled by the listing service at defined adjustment intervals, such as daily, weekly, monthly, etc. The denominated value may be based upon a monetary value, or even a credit or point system, depending upon the type of subscriber base being solicited by the listing service.

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> **The denominated-value approach to rankings may also be used in conjunction with the index search method or the category search method. In the first case, an index search of the listing service's database is performed using keywords, and the resulting listings found are ranked according to their subscription fee values.** In the second case, the subscribers' listings are assigned to appropriate categories, then when the user inputs a selection of categories of interest, the resulting listings found are ranked according to their subscription fee values.

Examiner maintains that above disclosure by Buck reads on the claims 1 limitation "at least one search term, a money amount and a computer network location."

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US Pub No 2003/0088554 to Ryan et al discloses content providers bidding for different keywords and profile types.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (571) 272-4023.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Patent related correspondence can be forwarded via the following FAX number (703) 872-9306

Etienne LeRoux

1/10/2005

S Metjahic

SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

OIPE JC
JUL 13 2004
MAIL DATE
PATENT & TRADEMARK OFFICE

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AUG 04 2004
PATENT & TRADEMARK OFFICE

| FORM PTO-1449 | SERIAL NO. 10/020,712 | CASE NO. 9623/378 |
|---|---|---|
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | FILING DATE December 11, 2001 | GROUP ART UNIT ~~2171~~ 2161 |
| (use several sheets if necessary) | APPLICANT(S): Mark Paine et al. | |

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (If known) | DATE | NAME | CLASS/ SUBCLASS | FILING DATE |
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| | D2 | 5,931,907 | 8/03/1999 | Davies et al. | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (If known) | DATE | COUNTRY | CLASS/ SUBCLASS | TRANSLATION YES OR NO |
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| EMR | D7 | WO 00/16218 A | 03/23/2000 | WIPO | | |
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| EXAMINER INITIAL | OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published. | |
|---|---|---|
| EMR | D8 | European Patent Office Search Report for corresponding application No. EP 0 25 8082.3, dated April 6, 2004, 3 pages. |
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| ✓ | D11 | Cohen, William W. et al., "Web-collaborating filtering: recommending music by crawling the Web", *Computer Networks 33*, 2000, pp. 685-698. |

| EXAMINER | DATE CONSIDERED |
|---|---|
| EP Lekwuoe | 1/10/2005 |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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| FORM PTO-1449 | SERIAL NO. 10/020,712 | CASE NO. 9623/378 |
|---|---|---|
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | FILING DATE December 11, 2001 | GROUP ART UNIT 2171 |
| (use several sheets if necessary) | APPLICANT(S): Mark Paine et al. | |

| EXAMINER INITIAL | OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published. | |
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| EXAMINER | DATE CONSIDERED |
|---|---|
| E Plehaus | 1/10/2005 |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Rev. Feb.-97
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| Notice of References Cited | Application/Control No. 10/020,712 | Applicant(s)/Patent Under Reexamination PAINE ET AL. | |
|---|---|---|---|
| | Examiner Etienne P LeRoux | Art Unit 2171 | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|---|---|---|---|
| | A | US-6,314,420 | 11-2001 | Lang et al. | 707/3 |
| | B | US-6,078,916 | 06-2000 | Culliss, Gary | 707/5 |
| | C | US-2003/0088554 | 05-2003 | Ryan et al. | 707/3 |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
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| | J | US- | | | |
| | K | US- | | | |
| | L | US- | | | |
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**FOREIGN PATENT DOCUMENTS**

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
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**NON-PATENT DOCUMENTS**

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

| Search Notes | Application No. | Applicant(s) |
|---|---|---|
| | 10/020,712 | PAINE ET AL. |
| | Examin r | Art Unit |
| | Etienne P LeRoux | 2161 |

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| SEARCH NOTES (INCLUDING SEARCH STRATEGY) | | |
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| Index of Claims | Application No. | Applicant(s) |
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| | Examiner | Art Unit |
| | Etienne P LeRoux | 2161 |

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U.S.P.S. EXPRESS MAIL "POST OFFICE TO ADDRESSEE" SERVICE
DEPOSIT INFORMATION

Express Mail Label No.: EV 655029654 US

Date of Deposit: July 13, 2005

BRINKS
HOFER
GILSON
&LIONE

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Paine, Mark et al.

Appln. No.: 10/020,712

Filed: December 11, 2001

For: RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING

Attorney Docket No: 9623/378

Examiner: Leroux, Etienne Pierre

Art Unit: 2161

Mail Stop RCE
Commissioner for Patents
U.S. Patent and Trademark Office
P. O. Box 1450
Alexandria, VA 22313-1450

## REQUEST FOR CONTINUED EXAMINATION (37 C.F.R. § 1.114)

Sir:

Applicant(s) requests continued examination of the above-identified application under 37 C.F.R. §1.114.

☒ Submission under 37 CFR 1.114 (*check at least one of the following*):

- ☐ Previously submitted:
  - ☐ Applicant(s) requests nonentry of any previously-filed unentered amendments.
  - ☐ Please enter and consider the Amendment After Final Under 37 C.F.R. §1.116 previously filed on_____
  - ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
  - ☐ Other: _____
- ☒ Attached is/are:
  - ☒ An Information Disclosure Statement
  - ☒ An Amendment to the written description, claims, or drawings
  - ☐ New Arguments and/or New Evidence in support of Patentability
  - ☐ Other: _____

☐ Request for suspension of action:

Applicant(s) hereby request suspension of action on the above-identified application under 37 C.F.R. §1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; requires Processing Fee under 37 C.F.R. §1.17(i)).

☐ Small Entity Status:

- ☐ Applicant hereby asserts entitlement to claim small entity status under 37 CFR §§ 1.9 and 1.27.
- ☐ A small entity statement or assertion of entitlement to claim small entity status was filed in prior application no._____/_____ and such status is still proper and desired.
- ☐ Is no longer desired.

☒ Applicant(s) calculate the following fees to be due in connection with this Request:

- ☒ A Request fee of $790 under 37 C.F.R. §1.17(e).
- ☐ A suspension processing fee of $_____ under 37 C.F.R. §1.17(i).
- ☐ An additional filing fee of $_____ under 37 C.F.R. §1.16 (_____ additional independent claims and/or _____ additional total claims).
- ☒ An extension fee of $1020 under 37 C.F.R. §1.17(a) for a three-month extension of time.

☒ Fee payment to cover the above-enumerated fee(s):

- ☒ Checks in the amount of $790 and $1020 are enclosed.
- ☐ Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of $_____. A copy of this Request is enclosed for this purpose.
- ☐ A payment by credit card in the amount of $_____ (Form PTO-2038 is attached).
- ☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE). A copy of this Request is enclosed for this purpose.

Respectfully submitted,

7/13/05
Date

John G. Rauch (Reg. No. 37,218)

U.S.P.S. EXPRESS MAIL "POST OFFICE TO ADDRESSEE" SERVICE
DEPOSIT INFORMATION

Express Mail Label No.: EV 655029654 US

Date of Deposit: July 13, 2005



Our Case No. 9623/378

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|---|---|---|
| In re Application of: | ) | |
| | ) | |
| Paine, Mark et al. | ) | |
| | ) | Examiner Leroux, Etienne Pierre |
| Serial No. 10/020,712 | ) | |
| | ) | Group Art Unit No. 2161 |
| Filing Date: December 11, 2001 | ) | |
| | ) | |
| For RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING | ) | |

## AMENDMENT

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This amendment is submitted in conjunction with a Request for Continued Examination under 37 C.F.R. § 1.114. Please amend the application as follows:

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 7.

## Amendments to the Claims

Please cancel claims 1-64.

Please add new claim 66-83 as shown below.

### Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-65 (Cancelled)

66. (New) A method for recommending search terms in a computer network search apparatus for generating a result list of items representing a match with information entered by a user through an input device connected to the computer network, the search apparatus including a computer system operatively connected to the computer network and a plurality of items stored in a database, each item including information to be communicated to a user and having associated with it at least one search term, an information provider and a bid amount, the method comprising:

(a) obtaining a set of potential search terms for acceptance by a new information provider who is adding items to the database;

(b) computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the database;

(c) computing an estimated rating for the each potential search term for the new information provider;

(d) sorting the potential search terms according to the computed estimated ratings;

(e) presenting to the new information provider on an output device the sorted potential search terms;

(f) receiving from the new information provider at an input device an indication of accepted search terms;

(g) repeating (b) through (e) until a completion indication is received from the new information provider.

67. (New) The method of claim 66 wherein obtaining a set of potential search terms comprises:

receiving from the new information provider a website uniform resource locator (URL); and

spidering the website associated with the website URL to obtain search terms for the set of potential search terms.

68. (New) The method of claim 67 wherein spidering the website comprises:

receiving data from pages of the website;

recording potential search terms from the data; and

determining a quality metric for each candidate search term.

69. (New) The method of claim 67 wherein computing an estimated rating comprises:

combining a rating based on the computed correlations and a rating based on the quality metric determined for each candidate search term.

70. (New) The method of claim 68 further comprising:

sorting the candidate search terms according to the quality metric; and

adding to the set of potential search terms only candidate search terms having a quality metric exceeding a threshold.

71. (New) The method of claim 66 wherein spidering comprises:

receiving data from one or more pages of the website; and

examining text from the one or more pages for candidate search terms.

72. (New) The method of claim 71 wherein examining text comprises:
examining substantially all text from the one or more pages; and
examining meta tags from the one or more pages.

73. (New) The method of claim 71 wherein receiving a website URL comprises:
receiving the advertiser's URL as the web site URL.

74. (New) The method of claim 71 wherein receiving a website URL comprises:
receiving the web site URL from the advertiser.

75. (New) The method of claim 66 wherein computing correlations comprises:
assigning ratings to search terms; and
computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms.

76. (New) The method of claim 75 wherein computing an estimated rating comprises:
predicting a likelihood that a search term will be relevant to the advertiser.

77. (New) The method of claim 76 wherein predicting comprises:
determining a quality metric for candidate search terms; and
predicting relevance of candidate search terms based on the quality metric.

78. (New) The method of claim 66 wherein presenting the sorted potential search terms to the new information provider comprises sending the sorted potential search terms with a web page to the output device.

79. (New) A computer network search engine apparatus which includes a database having stored therein a plurality of search listings, each search listing being associated with an information provider, at least one keyword, a money amount, and a computer network location and a search engine to identify search listings having a keyword matching a keyword entered by

a searcher, to order the identified listings using the money amounts for the respective identified listings, and to generate a result list including at least some of the ordered listings, the apparatus comprising:

an account management server including a processing system which is operative in conjunction with program code to recommend potential search terms to a new information provider adding search listings to the database;

collaborative filtering code operable in conjunction with the processing system to compute correlations between potential search terms for the new information provider and search terms of other information providers stored in the database and to compute an estimated rating for the each potential search term for the new information provider;

sorting code operable in conjunction with the processing system and configured to sort the potential search terms according to the computed estimated ratings;

an output device configured to provide the sorted potential search terms to the new information provider for review; and

an input device configured to receive from the new information provider an indication of accepted search terms.

80. (New) The computer network search engine apparatus further comprising:

spidering code operable in conjunction with the processing system to find initially accepted search terms in a web site by spidering the web site and to include the initially accepted search terms among the sorted potential search terms provided to the new information provider for review.

81. (New) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to spider a web site of the new information provider.

82. (New) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to spider a web site specified by the new information provider.

83. (New) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to retrieve pages from the web site of the new information provider, record terms contained in the retrieved pages and score the terms according to a quality metric.

84. (New) The computer network search engine apparatus of claim 83 wherein the spidering code is configured to include terms scoring above a threshold score among the sorted potential search terms

## REMARKS

This amendment is submitted in conjunction with a Request for Continued Examination. In response to the final office action dated January 19, 2005, claims 1-64 have been cancelled and new claims 66-83 are submitted. No new matter is added by these amendments, which find support throughout the application, particularly in FIGS. 10-20 and the associated text. Reconsideration of the application is respectfully requested.

In the final office action, claims were rejected over two cited references, U.S. patent number 6,078,916 to Culliss and U.S. patent number 6,314,420 to Lang. New claims 66-83 have been added to better define the subject matter defined by the present application. Culliss relates to a search system which receives a search query and identifies matching items or articles. In addition, the system provides for displaying advertising banners in response to certain paid-for key words entered by the user. Lang discloses a search system including collaborative filtering.

New claims 66-83 define an invention not disclosed or suggested by these references. The present invention defined by claims 66-83 relates to a method and apparatus for making search term recommendations to an information provider or advertiser in a *pay for placement market system* such as is described in conjunction with FIGS. 1-9 of the present application. The method for making search term recommendations is particularly described in conjunction with figures 10-20 of the application. Two particular techniques for identifying search terms to recommend are spidering (see, e.g., FIG. 11) and collaborative filtering (see, e.g., FIG. 12).

A pay for placement market system generally includes a database of search listings (such as databases 38, 40, of the present application). Stored on the database is a plurality of search listings such as search listing 344. Information providers who wish to display their search listings to users of the database enter and maintain search listings in the database. Each information provider specifies a "keyword" or search term that is compared with a search term received by the database as part of a search query from a user. If the information provider's search listing includes the received search term, information from the information provider's search listing is returned to the user with other search results that matched the search query. The information provider pays a money amount (sometimes referred to as a bid or bid amount) to the

operator of the pay for placement market system upon occurrence of a predetermined event, such as selection ("clickthrough") by the user. The information provider can thus use the pay for placement market system to advertise his web site and drive potential customers to his web site.

In the pay for placement marketplace, the information providers can control the positioning of their search listings in the search results. This is done by adjusting the bid amount of a search listing. The search listing can include a number of components or fields, including the keyword or search term (352) and bid amount (358). When a search query is received, the search results that match the query are ordered according to bid amount, so that the search listings with the highest bid amounts appear highest in the search result list, where they are most likely to be seen by the user. By adjusting the bid amount of his search listing in relation to the bid amounts of other information providers in the pay-for-placement marketplace system, the information provider can control where in the search result list his search listing will appear. If a searcher clicks on the information provider's search listing, his account with the marketplace operator is chargeable by a money amount corresponding to the bid amount for the search listing. Thus, the advertiser "pays for the placement" of his advertisement or search listing in the search result list.

The information providers may choose any search listings to bid upon, and they are generally related in some way to the product or service offered by the information provider. The present invention defined by claims 66-83 provides a method and apparatus for recommending search terms to an information provider on a pay-for-placement search system. The method and apparatus make search term recommendations based on the contents of the information provider's web site and by comparing the advertiser to other similar information providers and recommending search terms they have chosen. In this manner, the system recommends good search terms, or terms having a relation to the advertiser's web site or its content, while avoiding bad search terms which have no such relation. The system is interactive with the information provider, allowing him to decide when the set of search terms is sufficient for his requirements. However, the process of identifying and ranking search terms is automated and is based on actual pages of the advertiser's web site and by comparisons to other information providers.

Thus, the Culliss reference, which discloses a search system including banner advertisements, is quite different from the presently claimed system. Culliss fails to disclose a

pay for placement market system having the features of independent method claim 66 and independent apparatus claim 79. Lang does not provide the missing teaching.

Accordingly, consideration of claim 66-83 and allowance of the application are respectfully requested.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

John G. Rauch
Registration No. 37,218
Attorney for Applicant

July 13, 2005

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

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PATENT & TRADEMARK OFFICE

BRINKS
HOFER
GILSON
&LIONE

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Paine, Mark ET AL.

Appln. No.: 10/020,712

Filed: December 11, 2001

For: RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING

Examiner: Leroux, Etienne Pierre

Art Unit: 2161

Attorney Docket No: 9623/378

Mail Stop RCE
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

## TRANSMITTAL

Sir:

**Attached is/are:**

☒ Checks for $790 and $1020; Request for Continued Examination (37 CFR Section 1.114), in duplicate; Petition and Fee for Extension of Time (37 CFR Section 1.136(a)), in duplicate; Amendment; Information Disclosure Statement Accompanying Request for Continued Examination; PTO-1449 (one sheet); copies of references E1-E2

☒ Return Receipt Postcard

**Fee calculation:**

☒ No additional fee is required.

☒ An extension fee in an amount of $1020 for a three-month extension of time under 37 C.F.R. § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 C.F.R. § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

| | | | | | | Small Entity | | | Not a Small Entity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Claims Remaining After Amendment | | Highest No. Previously Paid For | Present Extra | | Rate | Add'l Fee | or | Rate | Add'l Fee |
| Total | 19 | Minus | 64 | 0 | | x $25= | | | x $50= | 0 |
| Indep. | 3 | Minus | 10 | 0 | | X100= | | | x $200= | 0 |
| First Presentation of Multiple Dep. Claim | | | | | | +$180= | | | + $360= | |
| | | | | | | Total | $ | | Total | $0 |

**Fee payment:**

☒ Checks in the amount of $970 and 1020 are enclosed.

☐ Please charge Deposit Account No. 23-1925 in the amount of $ . A copy of this Transmittal is enclosed for this purpose.

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

7/13/05
Date

John G. Rauch (Reg. No. 37,218)

"Express Mail" mailing label number
EV 655029654 US

Date of Deposit: July 13, 2005



**Case No. 9623/378**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Paine, Mark et al.

Serial No: 10/020,712

Filed: December 11, 2001

For: RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING

Examiner: Leroux, Etienne Pierre

Group Art Unit: 2161

**PETITION AND FEE FOR EXTENSION OF TIME (37 CFR § 1.136(a))**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a petition for an extension of the time to respond to the final office action dated January 19, 2005 for a period of three month(s).

☒ Applicant:

☐ claims small entity status. See 37 C.F.R. §1.27.

☒ is other than small entity

| | Extension Months | Other Than Small Entity | Small Entity |
|---|---|---|---|
| ☐ | One Month | $120.00 | $60.00 |
| ☐ | Two Months | $450.00 | $225.00 |
| ☒ | Three Months | $1,020.00 | $510.00 |
| ☐ | Four Months | $1,590.00 | $795.00 |
| ☐ | Five Months | $2,160.00 | $1,080.00 |

**Fee Payment**

☒ Attached is a check for $1020 for the Petition fee.

☐ Attached is a credit card authorization form for $_____ for the Petition fee.

☐ Charge Petition fee to Deposit Account No. 23-1925. A duplicate copy of this Petition is attached.

☒ Charge any additional fee required or credit for any excess fee paid to Deposit Account No. 23-1925. A duplicate copy of this Petition is attached.

Respectfully submitted,

Dated: July 13, 2005

John G. Rauch
Registration No. 37,218
Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610
(312)321-4200

"Express Mail" mailing label number EV 655029654 US

Date of Deposit: July 13, 2005



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | |
|---|---|---|
| In re Appln. of: | Paine, Mark ET AL. | |
| Appln. No.: | 10/020,712 | Examiner: Leroux, Etienne Pierre |
| Filed: | December 11, 2001 | Art Unit: 2161 |
| For: | RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING | |
| Attorney Docket No: | 9623/378 | |

**INFORMATION DISCLOSURE STATEMENT**
**ACCOMPANYING REQUEST FOR CONTINUED EXAMINATION**

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98, and more particularly in accordance with 37 C.F.R. §1.97(b), Applicants hereby cite the following reference(s):

| |
|---|
| McCallum, A.; Nigam, K.; Rennie, J.; and Seymore, K, Building Domain-Specific Search Engines with Machine Learning Techniques, 1999. Proc. AAAI-99 Spring Symposium on Intelligent Agents in Cyberspace |
| Maltz, D., and Ehrlich, K., Pointing The Way: Active Collaborative Filtering, 1995. Proc. ACM SIGCHI Conference, Published in the Proceedings of the CHI '95, May 1995. |

Applicants are enclosing Form PTO-1449 (one sheet), along with a copy of each listed reference for which a copy is required under 37 C.F.R. §1.98(a)(2). As each of

the listed references is in English, no further commentary is believed to be necessary, 37 C.F.R §1.98(a)(3). Applicants respectfully request that the citation(s) be placed into the file wrapper of the application.

By submitting this Statement, Applicants are attempting to fully comply with the duty of candor and good faith mandated by 37 C.F.R. §1.56. As such, this Statement is not intended to constitute an admission that any of the enclosed references, or other information referred to therein, constitutes "prior art" or is otherwise "material to patentability," as that phrase is defined in 37 C.F.R. §1.56(a).

Applicants have calculated no fee to be due in connection with the filing of this Statement. However, the Director is authorized to charge any fee deficiency associated with the filing of this Statement to a deposit account, as authorized in the Transmittal accompanying this Statement.

Respectfully submitted,

July 13, 2005
Date

John G. Rauch (Reg. No.37,218)

| FORM PTO-1449 | SERIAL NO. 10/020,712 | CASE NO. 9623/378 |
|---|---|---|
| **LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT** | FILING DATE December 11, 2001 | GROUP ART UNIT 2171 |
| (use several sheets if necessary) | APPLICANT(S): Mark Paine, et al. | |

**REFERENCE DESIGNATION** **U.S. PATENT DOCUMENTS**

| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (if known) | DATE | NAME | CLASS/ SUBCLASS | FILING DATE |
|---|---|---|---|---|---|---|
| | | | | | | |

**FOREIGN PATENT DOCUMENTS**

| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (if known) | DATE | COUNTRY | CLASS/ SUBCLASS | TRANSLATION YES OR NO |
|---|---|---|---|---|---|---|
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| EXAMINER INITIAL | | OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published. |
|---|---|---|
| | E1 | McCallum, A.; Nigam, K.; Rennie, J.; and Seymore, K, Building Domain-Specific Search Engines with Machine Learning Techniques, 1999. Proc. AAAI-99 Spring Symposium on Intelligent Agents in Cyberspace |
| | E2 | Maltz, D., and Ehrlich, K., Pointing The Way: Active Collaborative Filtering, 1995. Proc. ACM SIGCHI Conference, Published in the Proceedings of the CHI '95, May 1995. |
| | | |

| EXAMINER | DATE CONSIDERED |
|---|---|
| | |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

# PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 2001

Application or Docket Number
~~9623/378~~ 10/020,712

## CLAIMS AS FILED - PART I

| | (Column 1) | (Column 2) |
|---|---|---|
| TOTAL CLAIMS | 65 | |
| FOR | NUMBER FILED | NUMBER EXTRA |
| TOTAL CHARGEABLE CLAIMS | 65 minus 20= | * 45 |
| INDEPENDENT CLAIMS | 10 minus 3 = | * 7 |
| MULTIPLE DEPENDENT CLAIM PRESENT | | ☐ |

* If the difference in column 1 is less than zero, enter "0" in column 2

| SMALL ENTITY TYPE ☐ | | OR | OTHER THAN SMALL ENTITY | |
|---|---|---|---|---|
| RATE | FEE | | RATE | FEE |
| BASIC FEE | 370.00 | OR | BASIC FEE | 740.00 |
| X$ 9= | 405 | OR | X$18= | |
| X42= | 294 | OR | X84= | |
| +140= | | OR | +280= | |
| TOTAL | 1069 | OR | TOTAL | |

## CLAIMS AS AMENDED - PART II

AMENDMENT A

| | (Column 1) CLAIMS REMAINING AFTER AMENDMENT | | (Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3) PRESENT EXTRA |
|---|---|---|---|---|
| Total | * 64 | Minus | ** 65 | = 0 |
| Independent | * 10 | Minus | *** 10 | = 0 |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM | | | | ☐ |

| SMALL ENTITY | | OR | OTHER THAN SMALL ENTITY | |
|---|---|---|---|---|
| RATE | ADDITIONAL FEE | | RATE | ADDITIONAL FEE |
| X$ 9= | | OR | X$18= | |
| X42= | | OR | X84= | |
| +140= | | OR | +280= | |
| TOTAL ADDIT. FEE | | OR | TOTAL ADDIT. FEE | |

7/13/05

AMENDMENT B

| | (Column 1) CLAIMS REMAINING AFTER AMENDMENT | | (Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3) PRESENT EXTRA |
|---|---|---|---|---|
| Total | * 19 | Minus | ** | = |
| Independent | * 4 | Minus | *** | = |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM | | | | ☐ |

| | | | | |
|---|---|---|---|---|
| RATE | ADDITIONAL FEE | | RATE | ADDITIONAL FEE |
| X$ 9= | | OR | X$18= | |
| X42= | | OR | X84= | |
| +140= | | OR | +280= | |
| TOTAL ADDIT. FEE | | OR | TOTAL ADDIT. FEE | |

AMENDMENT C

| | (Column 1) CLAIMS REMAINING AFTER AMENDMENT | | (Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3) PRESENT EXTRA |
|---|---|---|---|---|
| Total | * | Minus | ** | = |
| Independent | * | Minus | *** | = |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM | | | | ☐ |

| | | | | |
|---|---|---|---|---|
| RATE | ADDITIONAL FEE | | RATE | ADDITIONAL FEE |
| X$ 9= | | OR | X$18= | |
| X42= | | OR | X84= | |
| +140= | | OR | +280= | |
| TOTAL ADDIT. FEE | | OR | TOTAL ADDIT. FEE | |

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/020,712 | 12/11/2001 | Mark Paine | 9623/378 | 1404 |

757 7590 08/24/2005

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

| EXAMINER |
|---|
| LEROUX, ETIENNE PIERRE |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2161 | |

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 10/020,712 | PAINE ET AL. |
| | Examiner | Art Unit |
| | Etienne P LeRoux | 2161 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *66-84* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *66, 67, 69, 71-76 and 78-84* is/are rejected.

7)☐ Claim(s) *68, 70 and 77* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/13/2005*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

### *Continued Examination*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/13/2005 has been entered.

### *Claim Status:*

Claims 66-84 are pending; claims 1-65 have been cancelled. Claims 68, 70 and 77 are objected to and claims 66, 67, 69, 71-76 and 78-84 are rejected as detailed below.

### *Specification*

The attempt to claim priority by reference to application serial No 09/911,674 filed July 24, 2001 and application serial No. 09/322,677 filed on May 28, 1999 is improper because the above applications do not support the limitations of the newly revised claims.

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. At least paragraphs 6, 8 and 99 include an embedded hyperlink.

### *Claim Objection*

Claims 68, 70 and 77 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 68 recites "determining a quality metric for each candidate search term." Each candidate search term does not further limit any of the elements of claim 66.

Claim 70 is objected to for being dependent from a rejected claim.

Claim 77 recites "determining a quality metric for candidate search terms and predicting relevance of candidate search terms based on the quality metric." Candidate search terms does not further limit any of the elements of claim 76.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 66-84 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 66 recites "obtaining a set of potential search terms." The specification does not contain a clear and concise description of the claimed computer-implemented method of obtaining a set of potential search terms such that the skilled artisan can make and use the invention.

Claim 66 recites "other information providers." The specification does not contain a clear and concise description of other information providers such that the skilled artisan can make and use the invention.

Claim 66 recites "a new information provider." The specification does not contain a clear and precise description of a new information provider such that a skilled technician can make and use the invention." In particular, paragraph 31 of the specification indicates that a server acts as an information provider; paragraph 35 includes various network providers such as account management server 22, search engine server 24, advertising server 14 and paragraph 39 states that client computers 12 may be network information providers such as advertising web site promoters or owners having advertiser web pages 30 located on web server 14. The skilled technician would not be able to make and use the invention because it is unclear which one of the above plurality of servers is the "new information provider."

Claim 66 recites "receiving from the new information provider at an input device an indication of accepted search terms." The specification does not contain a clear and concise description of the claimed computer-implemented method of receiving accepted search terms from the new information provider such that the skilled artisan can make and use the invention.

Claim 66 recites repeating (b) through (e) until a completion indication is received from the new information provider." The specification does not contain a clear and concise

description of the claimed computer-implemented method of receiving a completion indication such that a skilled artisan can make and use the invention.

Claim 66 recites "sorting the potential search terms according to the computed estimated ratings." The specification does not contain a clear and concise description of the claimed computer-implemented method of "sorting the potential search terms" such that a skilled artisan can make and use the invention.

Claim 79 is rejected on a basis similar to claim 66

Claims 67-78 and 80-84 are rejected for being dependent from a rejected base claim.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 66, 71, 75, 76, 78, 79, 83 and 84 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 6,314,420 issued to Lang et al (hereafter Lang), as best examiner is able to ascertain.

**Claims 66 and 75:**

Lang discloses:

(a) obtaining search terms [user enters query, col 1, lines 17-25, col 1, lines 55-60]

(b) computing correlations between the search terms and search terms in a database [query is profiled in storage on a content basis and adaptively updated over time, col 1, lines 56-60]

(c) computing an estimated rating for the search terms [informons[1] are compared to the query profile by relevancy ranking, col 1, lines 55-60, col 23, lines 33-38, col 1, lines 40-45]

(d) sorting the search terms [Figs 1-7 and col 24, lines 49-60]

(e) presenting the search terms [col 1, line 65 – col 2, line 3]

(f) receiving accepted search terms [col 2, lines 5-20]

(g) completing receiving accepted search terms [col 2, lines 5-20]

**Claims 71, 78 and 83:**

Lang discloses receiving data from one or more pages of the website and examining text from the one or more pages for candidate search terms [col 4, lines 23-30].

**Claim 76:**

Lang discloses predicting a likelihood that a search term will be relevant to the advertiser [col 2, lines 5-20].

**Claim 79:**

Lang discloses

an account management server including a processing system which is operative in conjunction with program code to recommend potential search terms to a new information

[1] Informons read on search terms because Lang discloses in column 1 lines 23-27 that "the search site typically employs a spider scanning system and a content based filter in a search engine to search the internet and find information which match the query. This process is basically a pre-search process in which matching informons are found at the time of initiating a search for the user's query, by comparing informons in an informon data base to the user's query." This is in line with applicant's Abstract which states that a first technique involves looking for search terms directly on an advertiser's web site.

provider adding search listings to the database [spider plus content-based filter, col 1, lines 20-25];

collaborative filtering code operable in conjunction with the processing system to compute correlations between potential search terms for the new information provider and search terms of other information providers stored in the database and to compute an estimated rating for the each potential search term for the new information provider [col 1, lines 45-65],

sorting code operable in conjunction with the processing system and configured to sort the potential search terms according to the computed estimated ratings [col 1, line 65 through col 2, line 5];

an output device configured to provide the sorted potential search terms to the new information provider for review [Fig 9, search return processor 48C, col 26, lines 1-8]; and

an input device configured to receive from the new information provider an indication of accepted search terms [Fig 9, 34C, col 25, lines 5-20, col 26, lines 1-8]

**Claim 84:**

Lang discloses wherein the spidering code is configured to include terms scoring above a threshold score among the sorted potential search terms [Abstract].

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 67, 72-74 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang as noted above in claims 66 and 79 in view of US Pat No 6,078,916 to Culliss (hereafter Culliss), as best examiner is able to ascertain.

**Claims 67, 69, 73, 74, 80, 81 and 82:**

Lang discloses the essential elements of the claimed invention as noted above and furthermore, Lang discloses spidering the website to obtain search terms for the set of potential search terms [col 1, lines 20-25] but does not disclose receiving from the new information provider a website uniform resource locator (URL). Culliss discloses receiving from the new information provider a website uniform resource locator (URL) [col 29, lines 30-45]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lang to include receiving from the new information provider a website uniform resource locator (URL) as taught by Culliss for the purpose of adopting the well-known means of accessing a website such that information can be down-loaded from the website.

**Claim 69:**

The combination of Lang and Culliss discloses the elements of claims 66 and 67 as noted above and furthermore, Lang discloses combining a rating based on the computed correlations and a rating based on the quality metric determined for each candidate search term [ col 1, lines 40-45].

**Claim 72:**

Lang discloses the elements of claims 66 and 71 as noted above and furthermore Lang discloses examining substantially all text from the one or more pages and Culliss discloses examining meta tags from the one or more pages [col 5, lines 15-20].

***Response to Arguments***

Applicant's arguments filed 7/13/2005 with respect to claims 66-84 have been considered but are moot in view of above new ground(s) of rejection necessitated by applicant's amendment. Nevertheless, it is expedient to consider the gist of applicant's comments.

**Applicant Argues:**

Applicant states in the paragraph joining pages 8 and 9 "Culliss fails to disclose a pay for placement market system having the features of independent claim 66 and independent apparatus claim 79. Lang does not provide the missing teaching."

**Examiner Responds:**

Examiner is nt persuaded. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., pay for placement market system) are not recited in the amended claims 66 and 79. Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday trough Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux
8/11/2005

| FORM PTO-1449 | SERIAL NO. 10/020,712 | CASE NO. 9623/378 |
|---|---|---|
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | FILING DATE December 11, 2001 | GROUP ART UNIT 2171 |
| (use several sheets if necessary) | APPLICANT(S): Mark Paine, et al. | |

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (If known) | DATE | COUNTRY | CLASS/ SUBCLASS | TRANSLATION YES OR NO |
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| EXAMINER INITIAL | | OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published. |
|---|---|---|
| Elch | E1 | McCallum, A.; Nigam, K.; Rennie, J.; and Seymore, K, Building Domain-Specific Search Engines with Machine Learning Techniques, 1999. Proc. AAAI-99 Spring Symposium on Intelligent Agents in Cyberspace |
| Elch | E2 | Maltz, D., and Ehrlich, K., Pointing The Way: Active Collaborative Filtering, 1995. Proc. ACM SIGCHI Conference, Published in the Proceedings of the CHI '95, May 1995. |
| | | |

| EXAMINER E Elchanan | DATE CONSIDERED 8/11/05 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

| FORM PTO-1449 | SERIAL NO. 10/020,712 | CASE NO. 9623/378 |
|---|---|---|
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | FILING DATE Dec. 11, 2011 | GROUP ART UNIT 2171 |
| (use several sheets if necessary) | APPLICANT(S): Mark paine et al. | |

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (if known) | DATE | NAME | CLASS/ SUBCLASS | FILING DATE |
|---|---|---|---|---|---|---|
| Eleh | C1 | US 2001/0047354 A1 | 11/29/2001 | Davis et al. | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER Number-Kind Code (if known) | DATE | COUNTRY | CLASS/ SUBCLASS | TRANSLATION YES OR NO |
|---|---|---|---|---|---|---|
| Eleh | C2 | WO 02/03303 A1 | 01/10/2002 | WIPO | | |
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| EXAMINER INITIAL | | OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published. |
|---|---|---|
| Eleh | C3 | Great Britain Search Report for corresponding patent application No. GB 0227454.6, dated May 6, 2003, 1 page. |
| | C | |
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| EXAMINER E P Le Roux | DATE CONSIDERED 8/11/05 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Rev. Dec.-99
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| Hilty, "GoTo.Hell-What Happens When On Line Search Engine Accepts Cash From Web Sites?" from http://www.ocweekly.com/link/archives/97/27/byte-3.11.98-1.html, March 1998. |
| Flynn, "With GoTo.com's Search Engine, the Highest Bidder Shall Be Ranked First", by the New York Times, March 1998. |
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In accordance with 37 C.F.R. § 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

This Information Disclosure Statement is being filed prior to the receipt of the first Official Action reflecting an examination on the merits and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these material, the Commissioner is hereby authorized to deduct said fees from Brinks Hofer Gilson & Lione's deposit account number 23-1925.

This application is a continuation-in-part application of U.S. Serial No. 09/911,674, filed July 24, 2001 which a continuation of 09/322,677, filed May 28, 1999, now issued US Patent No. 6,269,361 and is relied upon for an earlier filing date under

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In accordance with 37 C.F.R. § 1.97(g),(h), this Second Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

This Second Supplemental Information Disclosure Statement is being filed prior to the receipt of the first Official Action reflecting an examination on the merits and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with filing of this Second Supplemental Information Disclosure Statement. However, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Brinks Hofer Gilson & Lione Deposit Account No. 23-1925.

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## *Index of Claims*

| Application No. | Applicant(s) |
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| 10/020,712 | PAINE ET AL. |
| **Examiner** | **Art Unit** |
| Etienne P LeRoux | 2161 |

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| Search Notes | Application No. | Applicant(s) | |
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| | 10/020,712 | PAINE ET AL. | |
| | Examiner | Art Unit | |
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| SEARCH NOTES (INCLUDING SEARCH STRATEGY) | | |
|---|---|---|
| | DATE | EXMR |
| searched WEST, search notes included | 1/10/2005 | EPL |
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| APPLICATION NUMBER | PATENT NUMBER | GROUP ART UNIT | FILE WRAPPER LOCATION |
|---|---|---|---|
| 10/020,712 | | 2161 | 37M1 |

# Correspondence Address / Fee Address Change

**The following fields have been set to Customer Number 56020 on 09/09/2005**

- Correspondence Address
- Maintenance Fee Address

**The address of record for Customer Number 56020 is:**
BRINKS HOFER GIBSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO,IL 60610

IFW 2161 2161

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the below date:
Date: November 21, 2005 Name: John G. Rauch Signature: John G Rauch

BRINKS HOFER GILSON & LIONE

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Appln. of: Paine, Mark et al.

Appln. No.: 10/020,712

Filed: December 11, 2001

For: RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING

Attorney Docket No: 9623/378

Examiner: Leroux, Etienne Pierre

Art Unit: 2161

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

# TRANSMITTAL

Sir:

**Attached is/are**:

☒ Amendment (18 pages)

☒ Return Receipt Postcard

**Fee calculation**:

☒ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a _____-month extension of time under 37 C.F.R. § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 C.F.R. § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

| | | | | | | Small Entity | | | Not a Small Entity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Claims Remaining After Amendment | | Highest No. Previously Paid For | Present Extra | | Rate | Add'l Fee | or | Rate | Add'l Fee |
| Total | 19 | Minus | 64 | 0 | | x $25= | | | x $50= | 0 |
| Indep. | 3 | Minus | 10 | 0 | | x 100= | | | x $200= | 0 |
| First Presentation of Multiple Dep. Claim | | | | | | +$180= | | | + $360= | |
| | | | | | | Total | $ | | Total | $0 |

**Fee payment:**

☐ A check in the amount of $_____ is enclosed.

☐ Please charge Deposit Account No. 23-1925 in the amount of $ . A copy of this Transmittal is enclosed for this purpose.

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

November 21, 2005
Date

John G. Rauch (Reg. No. 37,218)

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the below date:

Date: November 21, 2005 Name: John G. Rauch Signature: _____

Our Case No. 9623/378

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | |
|---|---|
| In re Application of: | |
| Paine, Mark et al. | |
| Serial No. 10/020,712 | Examiner Leroux, Etienne Pierre |
| Filing Date: December 11, 2001 | Group Art Unit No. 2161 |
| For RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING | |

## AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This amendment is submitted in response to the Office Action mailed August 24, 2005. Please amend the application as follows:

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 6 of this paper.

**Remarks** begin on page 11.

IFW 2161 2161

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8
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Date: November 21, 2005 Name: John G. Rauch Signature: John G. Rauch

BRINKS HOFER GILSON & LIONE

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Appln. of: Paine, Mark et al.

Appln. No.: 10/020,712

Filed: December 11, 2001

For: RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING

Attorney Docket No: 9623/378

Examiner: Leroux, Etienne Pierre

Art Unit: 2161

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

# TRANSMITTAL

Sir:

**Attached is/are**:

☒ Amendment (18 pages)

☒ Return Receipt Postcard

**Fee calculation**:

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☐ Small Entity.

☐ An extension fee in an amount of $_____ for a _____-month extension of time under 37 C.F.R. § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 C.F.R. § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

| | | | | | | Small Entity | | | Not a Small Entity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Claims Remaining After Amendment | | Highest No. Previously Paid For | Present Extra | | Rate | Add'l Fee | or | Rate | Add'l Fee |
| Total | 19 | Minus | 64 | 0 | | x $25= | | | x $50= | 0 |
| Indep. | 3 | Minus | 10 | 0 | | x 100= | | | x $200= | 0 |
| First Presentation of Multiple Dep. Claim | | | | | | +$180= | | | + $360= | |
| | | | | | | Total | $ | | Total | $0 |

**Fee payment:**

☐ A check in the amount of $_____ is enclosed.

☐ Please charge Deposit Account No. 23-1925 in the amount of $ . A copy of this Transmittal is enclosed for this purpose.

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

November 21, 2005
Date

John G. Rauch (Reg. No. 37,218)

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

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Date: November 21, 2005 Name: John G. Rauch Signature: _____

Our Case No. 9623/378

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of: | |
| Paine, Mark et al. | |
| Serial No. 10/020,712 | Examiner Leroux, Etienne Pierre |
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P.O. Box 1450
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**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 6 of this paper.

**Remarks** begin on page 11.

## Amendments to the Specification

1. Please replace the paragraph beginning at page 2, line 29, with the following rewritten paragraph:

Unfortunately, few advertisers understand how to create a good list of search terms, and right now there are only limited tools to help them. The typical state of the art is the Search Term Suggestion Tool (STST) provided by Overture Services, Inc., located on the Internet at an internal page of overture.com ~~http://inventory.overture.com~~. STST provides suggestions based on string matching. Given a word, STST returns a sorted list of all the search terms that contain that word. This list is sorted by how often users have searched for the terms in the past month. In the seafood example, if the advertiser enters the word "fish", his results will include terms like "fresh fish," "fish market," "tropical fish," and "fish bait," but not words like "tuna" or "halibut" because they do not contain the string "fish." To create his initial list of search terms, a new advertiser will often enter a few words into STST and then bid on all of the terms that it returns.

2. Please replace the paragraph beginning at page 3, line 22, with the following rewritten paragraph:

An improved version of STST is the GoTo Super Term Finder (STF) which may be found at an internal web page of idealab.com, users.idealab.com/~charlie/advertisers/start.html ~~http://users.idealab.com/~charlie/advertisers/start.html~~. This tool keeps track of two lists: an accept list of good words for an advertiser's site, and a reject list of bad words or words that have no relation to the advertiser's site or its content. STF displays a sorted list of all the search terms that contain a word in the first list, but not in the second list. As with STST, the result list is sorted by how often users have searched for the terms in the past month. In the seafood example, if the accept list contains the words "fish," and the reject list contains the word "bait," then the

output will display terms like "fresh fish" and "tropical fish" but not "fish bait." An advertiser can use this output to refine his accept and reject lists in an iterative process.

3. Please replace the paragraph beginning at page 4, line 16, with the following rewritten paragraph:

A system that finds semantically related terms is Wordtracker, which may be found at wordtracker.com ~~http://www.wordtracker.com~~. Given a search term, Wordtracker recommends new terms in two ways. First, Wordtracker recommends words by looking them up in a thesaurus. Second, Wordtracker recommends words by searching for them using an algorithm called *lateral search*. Lateral search runs the original search term through two popular web search engines. It then downloads the top 200 web page results, extracts all the terms from the KEYWORD and DESCRIPTION meta tags for the pages and returns a list sorted by how frequently each term appears in these tags.

4. Please replace the paragraph beginning at page 9, line 30, with the following rewritten paragraph:

The second server type contemplated is a search engine web server 24. A search engine program permits network users, upon navigating to the search engine web server URL or sites on other web servers capable of submitting queries to the search engine web server 24 through their browser program 16, to type keyword queries to identify pages of interest among the millions of pages available on the World Wide Web. In a preferred embodiment of the present invention, the search engine web server 24 generates a search result list that includes, at least in part, relevant entries obtained from and formatted by the results of the bidding process conducted by the account management server 22. The search engine web server 24 generates a list of hypertext links to documents that contain information relevant to search terms entered by the user at the client computer 12. The search engine web server transmits this list, in the form of a web page, to the network user, where it is displayed on the browser 16 running on the client computer 12. A presently preferred embodiment of the search engine web server may be found

by navigating to the web page at URL goto.com ~~http://www.goto.com/~~. In addition, the search result list web page, an example of which is presented in FIG. 7, will be discussed below in further detail.

5. Please replace the paragraph beginning at page 33, line 28, with the following rewritten paragraph:

Spidering is a simple technology for downloading a web site rooted at a uniform resource locator (URL). A program downloads the home page given by the URL, then scans it for hyperlinks to other pages and downloads them. The spidering process continues until the program reaches a predefined link depth, downloads a predetermined number of pages, or reaches some other stopping criterion. The order in which pages are downloaded can be either breadth-first or depth-first. In breadth-first spidering, the program adds new URL's to the end of its list of pages to download; in depth-first spidering, it adds them to the beginning. These algorithms are straightforward and well known to engineers skilled in the state of the art. Further information about these techniques may be found by consulting Cho, Molina, and Page, "Efficient Crawling through URL Ordering", available from ResearchIndex~~,~~ ~~http://citeseer.nj.nec.com~~ on the Internet at citeseer.nj.nec.com or Nilsson, *Principles of Artificial Intelligence*, ISBN 0934613109.

6. Please replace the paragraph beginning at page 37, line 9, with the following rewritten paragraph:

These formulas provide a straightforward technique for calculating ratings based on similarity. There are many similar formulas and variations. For example, when making predictions it is usually better not to take a weighted average over all advertisers, but just over the 10-20 most highly correlated ones. There are also techniques for improving the efficiency of the calculations, or for doing collaborative filtering without using correlations or distance metrics. These variations are readily found in the literature on collaborative

filtering, and the current embodiments are not constrained to any one of them. More details on the advantages and disadvantages of different collaborative filtering algorithms can be found at the GroupLens web site at www.cs.umn.edu/Research/GroupLens ~~http://www.cs.umn.edu/Research/GroupLens~~.

**Amendments to the Claims**

Please amend claims 66, 68, 77 and 79 as shown below.

**Listing of Claims**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-65 (Cancelled)

66. (Currently amended) A method for recommending search terms in a computer network search apparatus for generating a result list of items representing a match with information entered by a user through an input device connected to the computer network, the search apparatus including a computer system operatively connected to the computer network and a plurality of items stored in a database, each item including information to be communicated to a user and having associated with it at least one search term, an information provider and a bid amount, the method comprising:

(a) obtaining a set of potential search terms for acceptance by a new information provider who is adding items to the database;

(b) computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the database;

(c) computing an estimated rating for the each potential search term for the new information provider;

(d) sorting the potential search terms according to the computed estimated ratings;

(e) presenting to the new information provider on an output device the sorted potential search terms;

(f) receiving from the new information provider at an input device an indication of accepted search terms;

(g) repeating (b) through (e) until a completion indication is received from the new information provider; and

(h) storing the accepted search terms in the database for the new information provider upon receipt of the completion indication.

67. (Previously presented) The method of claim 66 wherein obtaining a set of potential search terms comprises:

receiving from the new information provider a website uniform resource locator (URL); and

spidering the website associated with the website URL to obtain search terms for the set of potential search terms.

68. (Currently amended) The method of claim 67 wherein spidering the website comprises:

receiving data from pages of the website;

recording potential search terms from the data; and

determining a quality metric for each potential ~~candidate~~ search term.

69. (Previously presented) The method of claim 67 wherein computing an estimated rating comprises:

combining a rating based on the computed correlations and a rating based on the quality metric determined for each candidate search term.

70. (Previously presented) The method of claim 68 further comprising:

sorting the candidate search terms according to the quality metric; and

adding to the set of potential search terms only candidate search terms having a quality metric exceeding a threshold.

71. (Previously presented) The method of claim 66 wherein spidering comprises:

receiving data from one or more pages of the website; and

examining text from the one or more pages for candidate search terms.

72. (Previously presented) The method of claim 71 wherein examining text comprises:

examining substantially all text from the one or more pages; and

examining meta tags from the one or more pages.

73. (Previously presented) The method of claim 71 wherein receiving a website URL comprises:

receiving the advertiser's URL as the web site URL.

74. (Previously presented) The method of claim 71 wherein receiving a website URL comprises:

receiving the web site URL from the advertiser.

75. (Previously presented) The method of claim 66 wherein computing correlations comprises:

assigning ratings to search terms; and

computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms.

76. (Previously presented) The method of claim 75 wherein computing an estimated rating comprises:

predicting a likelihood that a search term will be relevant to the advertiser.

77. (Currently amended) The method of claim 76 wherein predicting comprises:

determining a quality metric for potential ~~candidate~~ search terms; and

predicting relevance of the potential ~~candidate~~ search terms based on the quality metric.

78. (Previously presented) The method of claim 66 wherein presenting the sorted potential search terms to the new information provider comprises sending the sorted potential search terms with a web page to the output device.

79. (Currently amended) A computer network search engine apparatus which includes a database having stored therein a plurality of search listings, each search listing being associated

with an information provider, at least one keyword, a money amount, and a computer network location and a search engine to identify search listings having a keyword matching a keyword entered by a searcher, to order the identified listings using the money amounts for the respective identified listings, and to generate a result list including at least some of the ordered listings, the apparatus comprising:

an account management server including a processing system which is operative in conjunction with program code to recommend potential search terms to a new information provider adding search listings to the database;

collaborative filtering code operable in conjunction with the processing system to compute correlations between potential search terms for the new information provider and search terms of other information providers stored in the database and to compute an estimated rating for the each potential search term for the new information provider;

sorting code operable in conjunction with the processing system and configured to sort the potential search terms according to the computed estimated ratings;

an output device configured to provide the sorted potential search terms to the new information provider for review; and

an input device configured to receive from the new information provider an indication of accepted search terms, <u>the accepted search terms being stored in the database in association with the new information provider upon receipt of the indication from the new information provider</u>.

80. (Previously presented) The computer network search engine apparatus further comprising:

spidering code operable in conjunction with the processing system to find initially accepted search terms in a web site by spidering the web site and to include the initially accepted search terms among the sorted potential search terms provided to the new information provider for review.

81. (Previously presented) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to spider a web site of the new information provider.

82. (Previously presented) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to spider a web site specified by the new information provider.

83. (Previously presented) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to retrieve pages from the web site of the new information provider, record terms contained in the retrieved pages and score the terms according to a quality metric.

84. (Previously presented) The computer network search engine apparatus of claim 83 wherein the spidering code is configured to include terms scoring above a threshold score among the sorted potential search terms

## REMARKS

Claims 66-84 are pending in the application. By this paper, claims 66, 68, 77 and 79 have been amended. Reconsideration and allowance of claims 66-84 are respectfully requested.

Objections to the Specification

**Claim to priority**

The specification stands objected to based on the claim to priority of earlier-filed applications. According to the office action, "the attempt to claim priority by reference to application to serial no. 09/911,674 filed July 24, 2001 and application serial no. 09/322,677 filed on May 28, 1999 is improper because the above applications do not support the limitations of the newly revised claims.

Withdrawal of this objection is respectfully requested. It is submitted that the claim for priority included at page 1 of the present application states that "this application is a continuation in part" of the noted applications. "A continuation-in-part is an application filed during the lifetime of an earlier nonprovisional application, repeating some substantial portion or all of the earlier nonprovisional application and *adding matter not disclosed* in the said earlier nonprovisional application." MPEP 201.08. Support for the limitations of the claims of this application is found throughout the application, including in material of the parent applications and in the added matter not disclosed in the earlier applications. Moreover, "an alleged continuation-in-part application should be permitted to claim the benefit of the filing date of an earlier non-provisional application if the alleged continuation-in-part application complies with the following formal requirements of 35 U.S.C. § 120:

"(A) The first application and the alleged continuation-in-part application were filed with at least one common inventor;

"(B) The alleged continuation-in-part application was 'filed before the patenting or abandonment of ...the first application or an application similarly entitled to the benefit of the filing date of the first application'; and

"(C) The alleged continuation-in-part application 'contains ... a specific reference to the earlier filed application.'"

Each of these requirements is fulfilled in the present application. With respect to requirement (A), inventor Darren J. Davis is common to the present application and the two parent applications. With respect to requirement (B), the present application was filed on December 11, 2001 and the immediate parent application, serial number 09/911,674, is still pending as of November 21, 2005. With respect to requirement (C), the application was filed with the required reference beginning at page 1, line 4. Accordingly, it is submitted that the claim for priority is properly made. Withdrawal of the objection to the specification and acknowledgement of the claim to priority is respectfully requested.

**Embedded Hyperlinks**

The disclosure is further objected to as containing an embedded hyperlink in paragraphs 6, 8, and 99. Deletion of the embedded hyperlink is required.

By this paper, the specification has been amended at several places to delete the embedded hyperlinks. No new matter is added by these amendments. Withdrawal of the objection to the disclosure is respectfully requested.

Claim Objections

Claims 68, 70 and 77 stand objected to under 37 C.F.R. § 1.75(c) as being of independent form. Claim 68 recites "determining a quality metric for each candidate search term." According to the office action, "each candidate search term" does not further limit any elements of claim 66.

Claim 68 has been amended so that it now recites "determining a quality metric for each potential search term" *(emphasis added)*, referring back to the potential search terms recited in claims 66 and 67. It is submitted that as amended, claim 68 properly limits claim 66 and withdrawal of the objection to claim 68 is respectfully requested.

Claim 70 stands "objected to for being dependent from a rejected claim." For reasons stated elsewhere in this paper, it is submitted that claim 68 is allowable. Withdrawal of the objection to claim 70 is respectfully requested.

Claim 77 also stand objected to. According to the office action, "claim 77 recites 'determining a quality metric for candidate search terms; and predicting relevance of candidate search terms based on the quality metric.'" Further according to the office action, "Candidate search term does not further limit any elements of claim 76."

Claim 77 has been amended so that it now recites "... potential search terms..." *(emphasis added)* in place of the reference to "candidate search terms". It is submitted that as amended, claim 77 properly limits claim 66 and withdrawal of the objection to claim 77 is respectfully requested.

Claim rejections under 35 U.S.C. § 112

Claims 66-84 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. According to the office action, the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention.

According to the office action, claim 66 recites "obtaining a set of potential search terms," which was not clearly and concisely contained in the specification. However, the published patent application no 2003/0055816 at paragraph [00107], beginning at page 37, line 19 of the application as filed, recites

> The technique gets its initial list of accepted terms in one of three ways: either directly from the advertiser, or from an existing advertiser's bid list, or from the list of recommendations returned by running the web spider on the new advertiser's web site.

In claim 66, the terminology "potential search term" is used to emphasize that the search term is to be provided or offered to the information provider for acceptance as a search term to be associated with him and stored in the database—it is at this point just a *potential* search term of the advertiser. It is respectfully submitted that this clearly shows how the claimed method may "obtain[] a set of potential search terms."

Further according to the office action, claim 66 recites "other information providers," which is considered to be absent from the specification. However, as noted above, the published patent application no 2003/0055816 at paragraph [00107], beginning at page 37, line 19 of the

application as filed, recites "[t]he technique gets its initial list of accepted terms in one of three ways: either directly from the advertiser, or from an existing advertiser's bid list...." *(emphasis added)*. This is illustrated at, for example, block 1012 of FIG. 10 of the application as filed. As used in the present application, "information provider" is generally synonymous with "advertiser," as explained a paragraph [0039], the paragraph beginning at page 10, line 24, of the application as filed.

Further according to the office action, claim 66 recites "a new information provider," which is considered unsupported in the specification as filed. However, the published patent application no 2003/0055816 at paragraph [00108], beginning at page 38, line 4 of the application as filed, recites

> In typical use, a new advertiser will start with the URL of his web site and go through 3-5 iterations of accepting and rejecting terms. As long as his web site is similar to those of existing advertisers, the system will quickly identify them and make high quality recommendations.

As noted above, as used in the present application, "information provider" is generally synonymous with "advertiser," as explained a paragraph [0039]. The invention defined by claim 66 recites "obtaining a set of potential search terms for acceptance by a new information provider who is adding items to the database." Thus, in the context of claim 66, it is presumed that there are *preexisting advertisers* or information providers who already have search terms stored on the database. Claim 66 relates to adding a new advertiser and his associated search terms to the database.

Further according to the office action, claim 66 recites "receiving from the new information provider at an input device an indication of accepted search terms," which is considered unsupported in the specification as filed. However, published patent application no 2003/0055816 at paragraph [00112], beginning at page 39, line 12 of the application as filed, recites

> The advertiser accepts and rejects terms by clicking on suitable check boxes next to the terms. When he is done making his changes, he clicks a button to transmit the page of data to the server and rerun the collaborative filtering algorithm. The advertiser can continue through as many iterations as he likes, repeating the loop, block 1014, until he is satisfied with the terms he has accepted. He then clicks a final button to exit the loop, block 1020, and store or print out his selected search terms. *(emphasis added)*

It is respectfully submitted that this clearly shows how the claimed method may "receiv[e] from the new information provider at an input device an indication of accepted search terms."

Further according to the office action, claim 66 recites "repeating (b) through (e) until a completion indication is received from the new information provider," which is considered unsupported in the specification as filed. However, published patent application no 2003/0055816 at paragraph [00112], beginning at page 39, line 20 of the application as filed, recites

> The advertiser can continue through as many iterations as he likes, repeating the loop, block 1014, until he is satisfied with the terms he has accepted. He then clicks a final button to exit the loop, block 1020, and store or print out his selected search terms. *(emphasis added)*

It is respectfully submitted that this clearly shows how the claimed method may "repeat[e] (b) through (e) until a completion indication is received from the new information provider."

Further according to the office action, claim 66 recites "sorting the potential search terms according to the computed estimated rating," which is alleged to lack support in the specification as filed. However, published patent application no 2003/0055816 at paragraphs [00104] – [0105, beginning at page 35, line 19 through page 37, line 8 of the application as filed, recites

> Quantitatively, collaborative filtering computes the Pearson correlation between the new advertiser and all of the existing advertisers. To calculate this correlation, a numeric rating is assigned to each entry in the advertiser/term table.... The output of the collaborative filter is the list of search terms sorted by their estimated ratings.

Further, at paragraphs [00118], beginning at page 35, line 19 through page 37, line 8, the application as filed recites

> After processing all search terms, the loop is exited at block 1210. At the end of the algorithm terms are sorted by their predicted ratings, block 1212. The method returns the final list as its ranked list of recommendations and then ends at block 1214.

It is respectfully submitted that this clearly shows how the claimed method may "sort[] the potential search terms according to the computed estimated ratings."

According to the office action, claim 79 stands rejected on a similar basis as claim 66. Independent claim 79 recites a computer network search engine apparatus. It is submitted that

support for limitations of claim 79 is found throughout the application as filed, including at the locations noted above for the limitations of claim 66. Withdrawal of the rejection to the claims under 35 U.S.C. § 112 is respectfully requested.

Prior art rejections

Claims 66, 71, 75, 76, 78, 79, 83 and 84 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent number 6,314,420 to Lang, et al. ("Lang"). Claims 67 72-74 and 80-82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lang in view of U.S. patent no. 6,078,916 to Culliss ("Culliss").

The present invention defined by claims 66-83 relates to a method and apparatus for making search term recommendations to an information provider in a computer network search apparatus. In the particular network search apparatus of claim 66, items stored in a database "hav[e] associated with [them] at least one search term, an information provider and a bid amount," as recited in the preamble of claim 66. Thus, there is an association between the items or search listings and the information provider. The present invention defined by claims 66-83 provides a method and apparatus for recommending search terms to a new information provider, i.e., one who has not previously stored search terms on the database or associated search terms with himself. Because the advertiser or information provider may not know what search terms to specify, or may wish to have a broader range of search terms than he can think up spontaneously, the advertiser may seek recommendations of other search terms. The claimed method and apparatus make search term recommendations based on the contents of the information provider's own web site and by comparing the advertiser to other similar information providers and recommending search terms they have chosen.

The method acts of claim 66 define how search terms are recommended to one such information provider, particularly a "new information provider" who is establishing search listings on the computer network search apparatus. Generally, according to the method, a set of potential search terms is obtained, computations are done including an estimated rating for each potential new search term, the potential search terms are sorted and presented to the new information provider who provides an indication of which are accepted search terms. Claim 66 has been amended to clarify that, upon receipt of the indication, the search terms which have

been accepted by the new information provider are stored. Thus, the claimed method provides an way in which a new information provider can establish search listings in a search system database by making suggestions of possible search terms to the advertiser.

In contrast, Lang actually relates to a search engine system which employs a content-based filtering system for receiving informons from a network on a continuing basis and for filtering the informons for relevancy to a wire or demand query from a user (Summary). Lang fails to disclose "a method for recommending search terms" to an information provider who is associated with items such as search terms stored in the database. Lang is related to a search engine system, but it is not of the type in which stored items are "associated with at least one search term, an information provider and a bid amount." These are features of a *pay for placement* database search system and are nowhere shown, described or suggested by Lang.

Culliss does not provide the missing teaching. As noted in the Amendment filed July 13, 2005, the Culliss reference discloses a search system including banner advertisements which is quite different from the presently claimed system. Culliss discloses a system in which search activity of a user is monitored and used to organize articles displayed in search results (Summary, pages 2-3). As users enter search queries and select articles, the scores of the articles are altered and then used in subsequent searches to organize articles matching a search query. Culliss thus fails to disclose a search system in which items in a database are associated with an advertiser or information provider--a pay for placement market system

Claim 79 has been amended along with claim 66, to distinguish the cited references. No new matter is added by this amendment, which finds support throughout the application and particularly at page 39, lines 12-26, paragraph [0112] of U.S. patent publication number 2003/0055816. Thus, independent claims 66 and 79 each recite limitations nowhere shown, described or in any way suggested by Lang. Accordingly, each of these independent claims is patentable over this reference. Claims 67-78 and 68-84 are dependent from claims 66 and 79, respectively, and each is therefore allowable for the same reasons. Accordingly, reconsideration and allowance of claims 66-84 are respectfully requested.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

John G. Rauch
Registration No. 37,218
Attorney for Applicant

November 21, 2005

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PTO/SB/06 (12-04)
Approved for use through 7/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE


# PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 10-020,718

## APPLICATION AS FILED – PART I

| FOR | (Column 1) NUMBER FILED | (Column 2) NUMBER EXTRA | SMALL ENTITY RATE ($) | SMALL ENTITY FEE ($) | OR | OTHER THAN SMALL ENTITY RATE ($) | OTHER THAN SMALL ENTITY FEE ($) |
|---|---|---|---|---|---|---|---|
| BASIC FEE (37 CFR 1.16(a), (b), or (c)) | | | | | | | |
| SEARCH FEE (37 CFR 1.16(k), (l), or (m)) | | | | | | | |
| EXAMINATION FEE (37 CFR 1.16(o), (p), or (q)) | | | | | | | |
| TOTAL CLAIMS (37 CFR 1.16(i)) | minus 20 = | * | x = | | OR | x = | |
| INDEPENDENT CLAIMS (37 CFR 1.16(h)) | minus 3 = | * | x = | | | x = | |
| APPLICATION SIZE FEE (37 CFR 1.16(s)) | If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). | | | | | | |
| MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) | | | | | | | |
| | | | TOTAL | | | TOTAL | |

* If the difference in column 1 is less than zero, enter "0" in column 2

## APPLICATION AS AMENDED – PART II

| | | (Column 1) CLAIMS REMAINING AFTER AMENDMENT | | (Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3) PRESENT EXTRA | SMALL ENTITY RATE ($) | SMALL ENTITY ADDITIONAL FEE ($) | OR | OTHER THAN SMALL ENTITY RATE ($) | OTHER THAN SMALL ENTITY ADDITIONAL FEE ($) |
|---|---|---|---|---|---|---|---|---|---|---|
| AMENDMENT A | Total (37 CFR 1.16(i)) | * | Minus | ** | = | x = | | OR | x = | |
| | Independent (37 CFR 1.16(h)) | * | Minus | *** | = | x = | | OR | x = | |
| | Application Size Fee (37 CFR 1.16(s)) | | | | | | | | | |
| | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | OR | | |
| | | | | | | TOTAL ADD'L FEE | | OR | TOTAL ADD'L FEE | |

11/23/05

| | | (Column 1) CLAIMS REMAINING AFTER AMENDMENT | | (Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3) PRESENT EXTRA | RATE ($) | ADDITIONAL FEE ($) | OR | RATE ($) | ADDITIONAL FEE ($) |
|---|---|---|---|---|---|---|---|---|---|---|
| AMENDMENT B | Total (37 CFR 1.16(i)) | * 19 | Minus | ** 65 | = — | x = | | OR | x = | |
| | Independent (37 CFR 1.16(h)) | * 3 | Minus | *** 10 | = — | x = | | OR | x = | |
| | Application Size Fee (37 CFR 1.16(s)) | | | | | | | | | |
| | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | OR | | |
| | | | | | | TOTAL ADD'L FEE | | OR | TOTAL ADD'L FEE | |

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

# Refine Search

**Search Results -**

| Term | Documents |
|---|---|
| BID | 9312 |
| BIDS | 3964 |
| PAY | 61497 |
| PAYS | 18658 |
| (15 AND (BID OR PAY)).PGPB,USPT. | 1 |
| (L15 AND (BID OR PAY)).PGPB,USPT. | 1 |

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Search:** L16

Refine Search

Recall Text Clear Interrupt

**Search History**

**DATE: Friday, January 13, 2006** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L16 | L15 and (bid or pay) | 1 | L16 |
| L15 | ('6421675')!.PN. | 1 | L15 |
| L14 | L13 and @ad<19990101 | 64 | L14 |
| L13 | (bid or pay) adj2 (term or search or keyword) | 499 | L13 |
| L12 | L10 and @ad<19990501 | 57 | L12 |
| L11 | 6269361.pn. | 1 | L11 |
| L10 | (bid or pay) near3 (search or keyword) | 527 | L10 |
| L9 | L8 and search term | 66 | L9 |
| L8 | pay near3 plac$5 | 1155 | L8 |

| | | | |
|---|---|---|---|
| L7 | monotonic near memory | 5 | L7 |
| L6 | monotonic near6 memory near6 (token or string) | 0 | L6 |
| L5 | monotonic near6 memory near6 token | 0 | L5 |
| L4 | monotonic near3 memory near3 token | 0 | L4 |
| L3 | monotonic near3 memory | 23 | L3 |
| L2 | monotonic near6 memory | 65 | L2 |
| L1 | monotonic nondecreasing | 7 | L1 |

END OF SEARCH HISTORY

# Freeform Search

**Database:**
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Term:** 20030088554

**Display:** 50 **Documents in Display Format:** - **Starting with Number** 1

**Generate:** ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search Clear Interrupt

## Search History

**DATE: Thursday, January 19, 2006** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| | *DB=PGPB,USPT; PLUR=YES; OP=ADJ* | | |
| L12 | 20030088554 | 1 | L12 |
| L11 | L10 and (meta tag or metatag) | 1 | L11 |
| L10 | 6078916.pn. | 1 | L10 |
| L9 | L7 and meta tag | 1 | L9 |
| L8 | L7 and quality metric | 1 | L8 |
| L7 | 20030055816 | 1 | L7 |
| L6 | L4 and craw$4 | 1 | L6 |
| L5 | L4 and craw4 | 0 | L5 |
| L4 | 6421675.pn. | 1 | L4 |
| L3 | L1 and craw$ | 0 | L3 |
| L2 | L1 and craw$3 | 0 | L2 |
| L1 | 6289341.pn. | 1 | L1 |

END OF SEARCH HISTORY

HN

# UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/020,712 | 12/11/2001 | Mark Paine | 9623/378 | 1404 |

56020 7590 01/23/2006

BRINKS HOFER GILSON & LIONE / YAHOO! OVERTURE
P.O. BOX 10395
CHICAGO, IL 60610

| EXAMINER |
|---|
| LEROUX, ETIENNE PIERRE |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2161 | |

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 10/020,712 | PAINE ET AL. |
| | Examiner | Art Unit |
| | Etienne P LeRoux | 2161 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *66-84* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *66-84* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

### *Claim Status:*

Claims 66-84 are pending; claims 1-65 have been cancelled. Claims 66-84 are rejected as detailed below.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 66-71 and 73-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,421,675 issued to Ryan et al (hereafter Ryan) in view of US Pat No 6,289,341 issued to Barney (hereafter Barney).

**Claims 66, 79 and 80:**

Ryan discloses::

(a) obtaining a set of potential search terms for acceptance by a new information provider who is adding items to the database [keyword 52, Fig 2, col 5, line 13]

(c) computing an estimated rating for the each potential search term for the new information provider [Crawler key-word list, col 7, line 63-col 8, line 5]

(d) sorting the potential search terms according to the computed estimated ratings[

(e) presenting to the new information provider on an output device the sorted potential search terms [Crawler key-word list, col 7, line 63-col 8, line 5]

(f) receiving from the new information provider at an input device an indication of accepted search terms [Surfer keyword list col 8, lines 15-20]

(g) repeating (b) through (e) until completion indication is received from the new information provider [successive surfer key-word lists, col 8, line 30]

(h) storing the accepted search terms in the database for the new information provider upon receipt of the completion indicator [keyword table, 164, Fig 4, col 11, lines 20-40].

Ryan discloses the elements of the claimed invention as noted above but does not disclose (b) computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the database. Barney discloses (b) computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the database [col 5, lines 20-35]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ryan to include (b) computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the

database as taught by Barney for the purpose of making a statistical comparison between the potential search terms and the database comprising keywords generated from existing websites.

**Claims 67, 81 and 82:**

The combination of Ryan and Barney discloses the elements of claim 66 as noted above and furthermore, Ryan disclose receiving from the new information provider a website uniform resource locator and spidering the website [col 7, lines 60-65] associated with the website URL [col 6, lines 35-30] to obtain search terms for the set of potential search terms.

**Claim 68 and 83:**

The combination of Ryan and Barney discloses the elements of claims 66 and 67 as noted above and furthermore, Ryan discloses receiving data from pages of the website, recording potential search terms from the data and determining a quality metric for each potential search term [Surfer keyword list col 8, lines 15-20]

**Claim 69**

The combination of Ryan and Barney discloses the elements of claims 66 and 67 as noted above and furthermore discloses combining a rating based on the computed correlations and a rating based on the quality metric determined for each candidate search term [Barney, col 5, lines 20-35, Ryan Surfer keyword list col 8, lines 15-20]

**Claim 70 and 84:**

The combination of Ryan and Barney discloses the elements of claims 66-68 as noted above and furthermore, Ryan discloses sorting the candidate search terms according to a quality metric and adding the set of potential search terms only candidate search terms having a quality metric exceeding a threshold [key-word suggester, col 8, line 28]

**Claim 71:**

The combination of Ryan and Barney discloses the elements of claims 66 as noted above and furthermore, Ryan discloses receiving data from one or more pages of the website and examining text from the one or more pages for candidate search terms [Crawler key-word list, col 7, line 63-col 8, line 5]

**Claim 73:**

The combination of Ryan and Barney discloses the elements of claims 66 and 71 as noted above and furthermore, Ryan discloses receiving a website URL comprises receiving the advertiser's URL as the web site URL [col 6, lines 35-30]

**Claim 74:**

The combination of Ryan and Barney discloses the elements of claims 66 and 71 as noted above and furthermore, Ryan discloses receiving the website from the advertiser [col 6, lines 35-30].

**Claim 75:**

The combination of Ryan discloses the elements of claim 66 as noted above and furthermore, discloses assigning ratings to search terms and computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms [Barney, [col 5, lines 20-35].

**Claim 76:**

The combination of Ryan and Barney discloses the elements of claims 66 and 75 as noted above and furthermore, Ryan discloses predicting a likelihood that a search term will be relevant to the advertiser [col 8, lines 25-30]

**Claim 77:**

The combination of Ryan and Barney discloses the elements of claims 66, 75 and 76 as noted above and furthermore, Ryan discloses determining a quality metric for potential search terms and predicting relevance of the potential search terms based on the quality metric [Surfer keyword list col 8, lines 15-20]

**Claim 78:**

The combination of Ryan and Barney discloses the elements of claim 66 as noted above and furthermore, Ryan discloses wherein presenting the sorted potential search terms to the new information provider comprises sending the sorted potential search terms with a web page to the output device [Fig 1A, 38]

Claims 67, 72-74 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ryan and Barney and further in view of US Pat No 6,078,916 to Culliss (hereafter Culliss).

**Claim 72:**

The combination of Ryan and Barney discloses the elements of claims 66 and 71 as noted above and furthermore, Ryan discloses examining substantially all text from the one or more pages but does not disclose examining meta tags from the one or more pages. Culliss discloses examining meta tags from the one or more pages [col 5, lines 15-20]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

combination of Ryan and Barney to include examining meta tags from the one or more pages as taught by Culliss for the purpose of attaching scores to each article.

### *Response to Arguments*

Applicant's arguments filed 11/23/2005 with respect to claims 66-84 have been considered and found partially persuasive but are now moot in view of above new ground(s) of rejection.

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday trough Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

1/19/2005

| Notice of References Cited | Application/Control No. 10/020,712 | Applicant(s)/Patent Under Reexamination PAINE ET AL. | |
|---|---|---|---|
| | Examiner Etienne P LeRoux | Art Unit 2161 | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|---|---|---|---|
| | A | US-6,421,675 | 07-2002 | Ryan et al. | 707/3 |
| | B | US-6,289,341 | 09-2001 | Barney, Matthew F. | 707/6 |
| | C | US- | | | |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
| | H | US- | | | |
| | I | US- | | | |
| | J | US- | | | |
| | K | US- | | | |
| | L | US- | | | |
| | M | US- | | | |

**FOREIGN PATENT DOCUMENTS**

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
|---|---|---|---|---|---|---|
| | N | | | | | |
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| | P | | | | | |
| | Q | | | | | |
| | R | | | | | |
| | S | | | | | |
| | T | | | | | |

**NON-PATENT DOCUMENTS**

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

| Index of Claims | Application No. | Applicant(s) |
|---|---|---|
| | 10/020,712 | PAINE ET AL. |
| | Examiner | Art Unit |
| | Etienne P LeRoux | 2161 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| √ | Rejected | – | (Through numeral) Cancelled | N | Non-Elected | A | Appeal |
| = | Allowed | ÷ | Restricted | I | Interference | O | Objected |

| Claim Final | Claim Original | Date 1/19/06 | | | | | | | | |
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| Search Notes | Application No. | Applicant(s) |
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| | 10/020,712 | PAINE ET AL. |
| | Examiner | Art Unit |
| | Etienne P LeRoux | 2161 |

| SEARCHED | | | |
|---|---|---|---|
| Class | Subclass | Date | Examiner |
| 707 | 1 | 1/19/2006 | EPL |
| 707 | 2 | 1/19/2006 | EPL |
| 707 | 5 | 1/19/2006 | EPL |
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| SEARCH NOTES (INCLUDING SEARCH STRATEGY) | | |
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CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the below date:
Date: April 24, 2006 Name: John G. Rauch Signature: John G. Rauch

BRINKS HOFER GILSON & LIONE

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Appln. of: Paine, Mark et al

Appln. No.: 10/020,712

Examiner: Leroux, Etienne Pierre

Filed: December 11, 2001

Art Unit: 2161

For: RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING

Attorney Docket No: 9623/378

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

# TRANSMITTAL

Sir:

**Attached is/are:**

☒ Amendment (10 pages)

☒ Return Receipt Postcard

**Fee calculation:**

☐ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a _____-month extension of time under 37 C.F.R. § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 C.F.R. § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

| | | | | | | Small Entity | | | Not a Small Entity | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Claims Remaining After Amendment | | Highest No. Previously Paid For | Present Extra | | Rate | Add'l Fee | or | Rate | Add'l Fee |
| Total | | Minus | | 0 | | x $25= | 0 | | x $50= | 0 |
| Indep. | | Minus | | 0 | | x 100= | | | x $200= | 0 |
| First Presentation of Multiple Dep. Claim | | | | | | +$180= | | | + $360= | 0 |
| | | | | | | Total | $0 | | Total | $0 |

**Fee payment:**

☐ A check in the amount of $_____ is enclosed.

☐ Please charge Deposit Account No. 23-1925 in the amount of $ . A copy of this Transmittal is enclosed for this purpose.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

4/24/06
Date

John G. Rauch
John G. Rauch (Reg. No. 37,218)

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the below date:

Date: April 24, 2006 Name: John G. Rauch Signature: John G. Rauch



Our Case No. 9623/378

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of: | ) | |
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| Paine, Mark et al. | ) | |
| | ) | Examiner Leroux, Etienne Pierre |
| Serial No. 10/020,712 | ) | |
| | ) | Group Art Unit No. 2161 |
| Filing Date: December 11, 2001 | ) | |
| | ) | |
| For RECOMMENDING SEARCH TERMS USING COLLABORATIVE FILTERING AND WEB SPIDERING | ) | |

## AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This amendment is submitted in response to the Office Action mailed January 23, 2006. Please amend the application as follows:

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 7.

**Amendments to the Claims**

Please amend claims 80 as shown below.

**Listing of Claims**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-65 (Cancelled)

66. (Previously Presented) A method for recommending search terms in a computer network search apparatus for generating a result list of items representing a match with information entered by a user through an input device connected to the computer network, the search apparatus including a computer system operatively connected to the computer network and a plurality of items stored in a database, each item including information to be communicated to a user and having associated with it at least one search term, an information provider and a bid amount, the method comprising:

(a) obtaining a set of potential search terms for acceptance by a new information provider who is adding items to the database;

(b) computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the database;

(c) computing an estimated rating for the each potential search term for the new information provider;

(d) sorting the potential search terms according to the computed estimated ratings;

(e) presenting to the new information provider on an output device the sorted potential search terms;

(f) receiving from the new information provider at an input device an indication of accepted search terms;

(g) repeating (b) through (e) until a completion indication is received from the new information provider; and

(h) storing the accepted search terms in the database for the new information provider upon receipt of the completion indication.

67. (Previously presented) The method of claim 66 wherein obtaining a set of potential search terms comprises:

receiving from the new information provider a website uniform resource locator (URL); and

spidering the website associated with the website URL to obtain search terms for the set of potential search terms.

68. (Previously presented) The method of claim 67 wherein spidering the website comprises:

receiving data from pages of the website;

recording potential search terms from the data; and

determining a quality metric for each potential search term.

69. (Previously presented) The method of claim 67 wherein computing an estimated rating comprises:

combining a rating based on the computed correlations and a rating based on the quality metric determined for each candidate search term.

70. (Previously presented) The method of claim 68 further comprising:

sorting the candidate search terms according to the quality metric; and

adding to the set of potential search terms only candidate search terms having a quality metric exceeding a threshold.

71. (Previously presented) The method of claim 66 wherein spidering comprises:

receiving data from one or more pages of the website; and

examining text from the one or more pages for candidate search terms.

72. (Previously presented) The method of claim 71 wherein examining text comprises:

examining substantially all text from the one or more pages; and

examining meta tags from the one or more pages.

73. (Previously presented) The method of claim 71 wherein receiving a website URL comprises:

receiving the advertiser's URL as the web site URL.

74. (Previously presented) The method of claim 71 wherein receiving a website URL comprises:

receiving the web site URL from the advertiser.

75. (Previously presented) The method of claim 66 wherein computing correlations comprises:

assigning ratings to search terms; and

computing a correlation between the advertiser and one or more of the other advertisers using the assigned ratings of advertiser search terms.

76. (Previously presented) The method of claim 75 wherein computing an estimated rating comprises:

predicting a likelihood that a search term will be relevant to the advertiser.

77. (Previously presented) The method of claim 76 wherein predicting comprises:

determining a quality metric for potential search terms; and

predicting relevance of the potential search terms based on the quality metric.

78. (Previously presented) The method of claim 66 wherein presenting the sorted potential search terms to the new information provider comprises sending the sorted potential search terms with a web page to the output device.

79. (Previously presented) A computer network search engine apparatus which includes a database having stored therein a plurality of search listings, each search listing being associated

with an information provider, at least one keyword, a money amount, and a computer network location and a search engine to identify search listings having a keyword matching a keyword entered by a searcher, to order the identified listings using the money amounts for the respective identified listings, and to generate a result list including at least some of the ordered listings, the apparatus comprising:

an account management server including a processing system which is operative in conjunction with program code to recommend potential search terms to a new information provider adding search listings to the database;

collaborative filtering code operable in conjunction with the processing system to compute correlations between potential search terms for the new information provider and search terms of other information providers stored in the database and to compute an estimated rating for the each potential search term for the new information provider;

sorting code operable in conjunction with the processing system and configured to sort the potential search terms according to the computed estimated ratings;

an output device configured to provide the sorted potential search terms to the new information provider for review; and

an input device configured to receive from the new information provider an indication of accepted search terms, the accepted search terms being stored in the database in association with the new information provider upon receipt of the indication from the new information provider.

80. (Currently amended) The computer network search engine apparatus <u>of claim 79</u> further comprising:

spidering code operable in conjunction with the processing system to find initially accepted search terms in a web site by spidering the web site and to include the initially accepted search terms among the sorted potential search terms provided to the new information provider for review.

81. (Previously presented) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to spider a web site of the new information provider.

82. (Previously presented) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to spider a web site specified by the new information provider.

83. (Previously presented) The computer network search engine apparatus of claim 80 wherein the spidering code is configured to retrieve pages from the web site of the new information provider, record terms contained in the retrieved pages and score the terms according to a quality metric.

84. (Previously presented) The computer network search engine apparatus of claim 83 wherein the spidering code is configured to include terms scoring above a threshold score among the sorted potential search terms.

## REMARKS

Claims 66-84 are pending in the application. Reconsideration and allowance of claims 66-84 are respectfully requested.

Prior art rejections

Claims 66-71 and 73-84 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent number 6,421,675 to Ryan, et al. ("Ryan") in view of U.S. patent number 6,289,341 to Barney ("Barney"). Claims 67, 72-74 and 80-82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ryan and Barney and further in view of U.S. patent no. 6,078,916 to Culliss ("Culliss").

The present invention defined by claims 66-84 relates to a method and apparatus for making search term recommendations to an information provider in a computer network search apparatus. In the particular network search apparatus of claim 66, items stored in a database "hav[e] associated with [them] at least one search term, an information provider and a bid amount," as recited in the preamble of claim 66. Thus, there is an association between the items or search listings and the information provider. The present invention defined by claims 66-83 provides a method and apparatus for recommending search terms to a new information provider, i.e., one who has not previously stored search terms on the database or associated search terms with himself. Because the advertiser or information provider may not know what search terms to specify, or may wish to have a broader range of search terms than he can think up spontaneously, the advertiser may seek recommendations of other search terms. The claimed method and apparatus make search term recommendations based on the contents of the information provider's own web site and by comparing the advertiser to other similar information providers and recommending search terms they have chosen.

The method acts of claim 66 define how search terms are recommended to one such information provider, particularly a "new information provider" who is establishing search listings on the computer network search apparatus. Generally, according to the method, a set of potential search terms is obtained, computations are done including an estimated rating for each potential new search term, the potential search terms are sorted and presented to the new

information provider who provides an indication of which are accepted search terms. Thus, the claimed method provides a way in which a new information provider can establish search listings in a search system database by making suggestions of possible search terms to the advertiser.

Ryan actually relates to a search system which provides keyword suggestion to a user of the search system. From column 5, line 13, a keyword is "the word or phrase that the user enters to find a list of web pages." The search process is described at column 4, lines 30-40. The system suggests keywords to the user, based on a keyword that the user entered. Column 7, lines 63-66; column 8, lines 28-32.

Since the keywords are suggested to the user, Ryan fails to disclose the present invention of claims 66-84 which relates to suggesting keywords to an information provider. Information providers are present in the system disclosed by Ryan, e.g., FIG. 1B "Developer site/computer" 104A, B; column 4, lines 3-11. However, Ryan's keyword suggestion feature serves the user who submits search requests, not the developer who provides content and other information.

Accordingly, Ryan fails to disclose many limitations of the present claims. Ryan is not related to a system and method for suggesting keywords to an information provider and therefore can't show, describe or suggest the features of the presently claimed invention. For example, claim 66 recites "obtaining a set of potential search terms for acceptance by a new information provider who is adding items to the database." Ryan does not relate to a new information provider or potential search terms for acceptance by such an information provider. Ryan is instead directed to another party in the search system, the user or searcher. Further, as another example, claim 66 recites "presenting to the new information provider on an output device the sorted potential search terms." For this limitation, the office action refers to Ryan's Surfer keyword list at column 8, lines 15-20. However, the Surfer keyword list is described as "a data set comprised of a list of key-words that the individual user found useful after the keyword was selected" *(emphasis added)*. Thus, in accordance with the fundamental distinction between Ryan and the presently claimed invention, the Surfer keyword list is a user feature, not a list presented to the new information provider. Ryan just doesn't relate to the problem solved by the claimed invention.

The office action relies on Barney as disclosing (in claim 66) step (b) "computing correlations." However, Barney describes a "site examiner" which traverses web sites of others and makes comparisons between web site data and "IP indicia," or information about an owners intellectual property. The site examiner may user correlations for this comparison. However, Barney does not show or suggest "computing correlations between the potential search terms for the new information provider and search terms of other information providers stored in the database" as recited by claim 66. First, Barney is not related to potential search terms of a new information provider. Second, in the limitation of claim 66, relevant information is stored in "a database" and the correlations are computed on data stored in the database. Barney teaches crawling others' web sites and performing correlations on the crawled data.

Accordingly, Barney does not provide the missing teaching. Barney is even more remote from the present invention defined by claims 66-84.

Moreover, the keyword suggestion techniques of Ryan, for suggesting keywords to a user or searcher, can not be properly extended to a keyword suggestion device and method for an information provider, such as the method and apparatus in accordance with claims 66-84. The new information provider may not know what search terms to specify, or may wish to have a broader range of search terms than he can think up spontaneously, and therefore the information provider may seek recommendations of other search terms.

In contrast, a user generally seeks a narrower, more focused range of results when he enters a search terms, as Ryan explains at column 1, lines 41-58. Ryan's device then provides

> a method of updating an internet search engine database with the results of a user's selection of specific web page lists from the general web page listing provided to the user as a result of his initial keyword search entry. *By updating the database with the selections of many different users*, the database can be updated to prioritize those web listings that have been selected the most with respect to a given keyword, and hereby presenting first the most popular web page listings in a subsequent search using the same keyword search entry *(emphasis added)*.

Ryan, column 2, lines 27-36.

Accordingly, even though both Ryan and the presently claimed invention broadly provide "keyword suggestion," it is not proper to extend Ryan's device to the problem of keyword

suggestion for information providers. And even if this extension is made, Ryan simply operates differently to provide keywords to users. The claimed method and apparatus make search term recommendations based on the contents *of the information provider's own web site* and by comparing the advertiser *to other similar information providers* and recommending search terms they have chosen. Ryan is not related to this process. Accordingly, it is submitted that claim 66 is allowable over the cited references.

While only claim 66 has been discussed in detail herein, it is submitted that independent claim 79 includes similar limitations and is allowable for the same reasons. Withdrawal of the rejections of claims 66-84 is respectfully requested.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

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Attorney for Applicant

April 24, 2006

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