

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,779,011 B2
APPLICATION NO. : 11/312908
DATED : August 17, 2010
INVENTOR(S) : Sashikumar Venkataraman et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims:

At column 8, claim 1, line 53, "which determining letters" should read --determining which letters--.

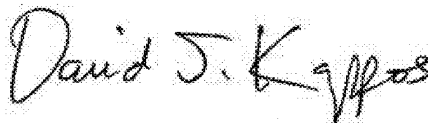
At column 9, claim 1, line 9, "mapped to said items received so" should read --mapped to said items so--.

At column 9, claim 9, line 52, "which determine letters" should read --determine which letters--.

At column 10, claim 17, line 54, "which determine letters" should read --determine which letters--.

At column 11, claim 17, line 10, "mapped to said items received so" should read --mapped to said items so--.

Signed and Sealed this
Fifteenth Day of February, 2011

A handwritten signature in black ink, reading "David J. Kappos". The signature is stylized with a large "D" and "K".

David J. Kappos
Director of the United States Patent and Trademark Office

Veveo Ex. 2012
Comcast v. Veveo
IPR2019-00291

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Sashikumar VENKATARAMAN et al. Confirmation No.: 4622
Application No.: 11/312,908 Art Unit: 2167
Filed: December 20, 2005 Examiner: M. D. Reyes
Title: METHOD AND SYSTEM FOR DYNAMICALLY PROCESSING
AMBIGUOUS, REDUCED TEXT SEARCH QUERIES AND
HIGHLIGHTING RESULTS THEREOF

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

Amendment in Response to Notice to File Corrected Application Papers

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Notice to File Corrected Application Papers dated July 16, 2010, please amend the above-identified U.S. patent application as follows:

Amendments to the Drawings are reflected on page 2 of this paper.

Remarks/Arguments begin on page 3 of this paper.

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIG. 2A. We respectfully request entry of these replacement drawings. No new matter has been introduced in these drawings.

Attachment: Replacement sheets

REMARKS

This amendment is in response to the Notice to File Corrected Application Papers dated July 16, 2010. That Notice states that the drawings filed on March 30, 2006, included FIG. 2A but that the specification's brief description of the drawings does not describe a drawing with that designation.

The drawings originally submitted included FIG. 2. In our reply to a Notice to File Missing Parts, we submitted a set of replacement sheets, wherein we erroneously changed the label of original FIG. 2 to FIG. 2A. No substantive change was made to the figure.

Herewith, we submit a replacement sheet that includes FIG. 2, and we request that this figure replace current FIG. 2A. We submit this amendment will resolve any inconsistencies between the specification and the drawings. We respectfully request reconsideration.

We believe no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0290672.00129US2 from which the undersigned is authorized to draw.

Respectfully submitted,

Dated: July 16, 2010

/John V. Hobgood/
John V. Hobgood
Registration No.: 61,540
Attorney for Applicant(s)

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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NOTICE OF ALLOWANCE AND FEE(S) DUE

23483 7590 06/29/2010

WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109

EXAMINER

REYES, MARIELA D

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 06/29/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/312,908

12/20/2005

Sashikumar Venkataraman

0290672.00129US2

4622

TITLE OF INVENTION: METHOD AND SYSTEM FOR DYNAMICALLY PROCESSING AMBIGUOUS, REDUCED TEXT SEARCH QUERIES AND HIGHLIGHTING RESULTS THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	09/29/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

23483 7590 06/29/2010

**WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/312,908	12/20/2005	Sashikumar Venkataraman	0290672.00129US2	4622

TITLE OF INVENTION: METHOD AND SYSTEM FOR DYNAMICALLY PROCESSING AMBIGUOUS, REDUCED TEXT SEARCH QUERIES AND HIGHLIGHTING RESULTS THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	09/29/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
REYES, MARIELA D	2167	707-742000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/312,908	12/20/2005	Sashikumar Venkataraman	0290672.00129US2	4622
23483	7590	06/29/2010	EXAMINER	
WILMERHALE/BOSTON 60 STATE STREET BOSTON, MA 02109			REYES, MARIELA D	
			ART UNIT	PAPER NUMBER
			2167	
DATE MAILED: 06/29/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 234 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 234 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/312,908	VENKATARAMAN ET AL.	
	Examiner	Art Unit	
	Mariela D. Reyes	2167	

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 03/26/2010.
2. ☒ The allowed claim(s) is/are 2-4, 6-9, 11-13, 15-18, 27-29 and 31-37.
3. ☐ 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 the:
 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)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>03/25/2010</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20100618</u>. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|--|--|

Examiner-Initiated Interview Summary	Application No. 11/312,908	Applicant(s) VENKATARAMAN ET AL.	
	Examiner Mariela D. Reyes	Art Unit 2167	

All Participants:

(1) Mariela D. Reyes.

(2) John Hobgood.

Status of Application: _____

(3) _____.

(4) _____.

Date of Interview: 16 June 2010

Time: _____

Type of Interview:

- ☒ Telephonic
☐ Video Conference
☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☒ No

If Yes, provide a brief description: _____.

Part I.

Rejection(s) discussed:

N/A

Claims discussed:

N/A

Prior art documents discussed:

N/A

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

Examiner contacted applicant to advise of possible amendments that would put the application in condition for allowance, applicant faxed a copy of the claims including the proposed amendments and authorized examiner to go ahead and write the examiner's amendment.

Part III.

- ☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.
☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

/Mariela D Reyes/
Examiner, Art Unit 2167

(Applicant/Applicant's Representative Signature – if appropriate)

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John V. Hobgood (Reg. 61,540) on June 16, 2010.

The application has been amended as follows:

In Claim 35:

Line 10, after the terms "subset of items, determining" **insert** which

Line 11, after the terms "items of said subset" **insert** caused said items to be associated **delete** ~~that correspond to the alphabetical and numerical symbols in fixed association~~

Line 23, after the terms "that were determined to" **insert** have caused the displayed items to be associated **delete** ~~correspond to the alphabetical and numerical symbols in fixed association~~

Line 25, before the terms "unresolved keystrokes" **insert** strings of

Line 25, after the terms "unresolved keystrokes" **insert** that are directly mapped to said items **delete** ~~received~~

In Claim 36:

Line 11, after the terms "subset of items, determining" **insert** which

Art Unit: 2167

Line 12, after the terms “items of said subset” **insert** caused said items to be associated **delete** ~~that correspond to the alphabetical and numerical symbols in fixed association~~

Line 25, after the terms “that were determined to” **insert** have caused the displayed items to be associated **delete** ~~correspond to the alphabetical and numerical symbols in fixed association~~

Line 27, before the terms “unresolved keystrokes” **insert** strings of

Line 27, after the terms “unresolved keystrokes” **insert** that are directly mapped to said items **delete** ~~received~~

In Claim 37:

Line 12, after the terms “subset of items, determining” **insert** which

Line 13, after the terms “items of said subset” **insert** caused said items to be associated **delete** ~~that correspond to the alphabetical and numerical symbols in fixed association~~

Line 25, after the terms “that were determined to” **insert** have caused the displayed items to be associated **delete** ~~correspond to the alphabetical and numerical symbols in fixed association~~

Line 27, before the terms “unresolved keystrokes” **insert** strings of

Line 27, after the terms “unresolved keystrokes” **insert** that are directly mapped to said items **delete** ~~received~~

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: Claims 35, 36 and 37 recite a method for indexing a database for access using a device with overloaded keys; wherein the index is created by associating each item in the database with a string of unresolved keystrokes and upon receipt of a search request using said overloaded keys comparing the received unresolved keystrokes to the unresolved keystrokes mapped to the items in the database.

Thus, the prior art of record neither rendered obvious nor anticipated the combination of claimed elements in light of the specification, therefore claims 2-4, 6-9, 11-13, 15-18, 27-29 and 31-37 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariela D. Reyes whose telephone number is (571) 270-1006. The examiner can normally be reached on M - F 7:30- 5:00 East time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2167

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). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/
Supervisory Patent Examiner, Art
Unit 2167

/Mariela D Reyes/
Examiner, Art Unit 2167
June 18, 2010

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Sashikumar VENKATARAMAN et al. Confirmation No.: 4622
Application No.: 11/312,908 Art Unit: 2167
Filed: December 20, 2005 Examiner: M. D. Reyes
Title: METHOD AND SYSTEM FOR DYNAMICALLY PROCESSING
AMBIGUOUS, REDUCED TEXT SEARCH QUERIES AND
HIGHLIGHTING RESULTS THEREOF

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

Amendment in Response to Non-Final Office Action Under 37 C.F.R. 1.111

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action dated December 3, 2009, please amend the above-identified U.S. patent application as follows:

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

Remarks/Arguments begin on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

1. (Cancelled)
2. (Previously Presented) The method of claim 35 wherein said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.
3. (Previously Presented) The method of claim 35 wherein said one or more given criteria include one or more of: temporal relevance, location relevance, popularity, personal preferences and character count.
4. (Previously Presented) The method of claim 35 wherein said displayed items are ordered such that items having single-word or multi-word term matches are displayed before items having single-word or multi-word abbreviation matches.
5. (Canceled)
6. (Previously Presented) The method of claim 35 wherein said search query is processed by a server system remote from said user.
7. (Previously Presented) The method of claim 35 wherein said search query is processed by a device operated by said user.
8. (Previously Presented) The method of claim 35 wherein said items comprise television content items, or a product or service sought by the user.
9. (Previously Presented) The method of claim 7 wherein said device is a cell phone, desk phone, a PDA, or a remote control device for a television.

10. (Cancelled)

11. (Previously Presented) The system of claim 36 wherein said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.

12. (Previously Presented) The system of claim 36 wherein said one or more given criteria include one or more of: temporal relevance, location relevance, popularity, personal preferences and character count.

13. (Previously Presented) The system of claim 36 wherein said displayed items are ordered such that items having single-word or multi-word term matches are displayed before items having single-word or multi-word abbreviation matches.

14. (Canceled)

15. (Previously Presented) The system of claim 36 wherein said computer system comprises a server system remote from said user.

16. (Previously Presented) The system of claim 36 wherein said computer system is incorporated in or proximate a device operated by said user.

17. (Previously Presented) The system of claim 36 wherein said items comprise television content items, or a product or service sought by the user.

18. (Previously Presented) The system of claim 16 wherein said device is a cell phone, desk phone, a PDA, or a remote control device for a television.

Claims 19-26. (Cancelled)

27. (Previously Presented) The computer program product of claim 37 wherein said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.

28. (Previously Presented) The computer program product of claim 37 wherein said one or more given criteria include one or more of: temporal relevance, location relevance, popularity, personal preferences and character count.

29. (Previously Presented) The computer program product of claim 37 wherein said displayed items are ordered such that items having single-word or multi-word term matches are displayed before items having single-word or multi-word abbreviation matches.

30. (Canceled)

31. (Previously Presented) The computer program product of claim 37 wherein said search query is processed by a server system remote from said user.

32. (Previously Presented) The computer program product of claim 37 wherein said search query is processed by a device operated by said user.

33. (Previously Presented) The computer program product of claim 37 wherein said items comprise television content items, or a product or service sought by the user.

34. (Previously Presented) The computer program product of claim 32 wherein said device is a cell phone, desk phone, a PDA, or a remote control device for a television.

35. (Currently Amended) A method of processing unresolved keystroke entries by a user from a keypad with overloaded keys in which a given key is in fixed association with a number and at least one alphabetic character, said unresolved keystroke entries being directed at identifying an

item from a set of items, each of said items being associated with information describing the item comprising one or more words, said method comprising:

indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of unresolved keystrokes for various search query prefix substrings;

for at least one subset of items, determining letters and numbers present in the information associated with and describing the indexed items of said subset that correspond to the alphabetical and numerical symbols in fixed association with the strings of one or more unresolved keystrokes that are directly mapped to said subset;

subsequent to said indexing, receiving from a user a search query for desired items composed of unresolved keystrokes, said search query comprising a prefix substring for at least one word in information associated with the desired item;

in response to each unresolved keystroke, identifying and displaying ~~at least one of the~~ subsets of items, and information associated therewith, that are associated with the strings of one or more unresolved keystrokes received from the user based on the direct mapping of strings of unresolved keystrokes to subsets of items, wherein each item displayed has one or more words in the information associated therewith that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received;

in response to each unresolved keystroke, as the identified items are displayed, highlighting the ~~alphabetical and numerical symbols of~~ letters and numbers present in the one or more words in said information describing the identified items that were determined to correspond to at least partially match the alphabetical and numerical symbols in fixed

association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items; and

ordering the displayed items in accordance with one or more given criteria.

36. (Currently Amended) A system for processing unresolved keystroke entries by a user from a keypad with overloaded keys in which a given key is in fixed association with a number and at least one alphabetic character, said unresolved keystroke entries being directed at identifying an item from a set of items, each of said items being associated with information describing the item comprising one or more words, said system comprising a computer-readable medium comprising instructions for causing a computer system to:

index said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of unresolved keystrokes for various search query prefix substrings;

for at least one subset of items, determine letters and numbers present in the information associated with and describing the indexed items of said subset that correspond to the alphabetical and numerical symbols in fixed association with the strings of one or more unresolved keystrokes that are directly mapped to said subset;

subsequent to said indexing, receive from a user a search query for desired items composed of unresolved keystrokes, said search query comprising a prefix substring for at least one word in information associated with the desired item;

in response to each unresolved keystroke, identify and display on a display device at least one of the subsets of items, and information associated therewith, that are associated with the strings of one or more unresolved keystrokes received from the user based on

~~the direct mapping of strings of unresolved keystrokes to subsets of items, wherein each item displayed has one or more words in the information associated therewith that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received;~~

in response to each unresolved keystroke, as the identified items are displayed, highlight on the display device the ~~alphabetical and numerical symbols of~~ letters and numbers present in the one or more words in said information describing the identified items that were determined to correspond to at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items; and

order on the display device the displayed items in accordance with one or more given criteria.

37. (Currently Amended) A computer program product for processing unresolved keystroke entries by a user from a keypad with overloaded keys in which a given key is in fixed association with a number and at least one alphabetic character, said unresolved keystroke entries being directed at identifying an item from a set of items, each of said items being associated with information describing the item comprising one or more words, said computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by a processor, cause the processor to:

index said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of unresolved keystrokes for various search query prefix substrings;

for at least one subset of items, determine letters and numbers present in the information associated with and describing the indexed items of said subset that correspond to the alphabetical and numerical symbols in fixed association with the strings of one or more unresolved keystrokes that are directly mapped to said subset;

subsequent to said indexing, receive from a user a search query for desired items composed of unresolved keystrokes, said search query comprising a prefix substring for at least one word in information associated with the desired item;

in response to each unresolved keystroke, identify and display at least one of the subsets of items, and information associated therewith, that are associated with the strings of one or more unresolved keystrokes received from the user based on the direct mapping of strings of unresolved keystrokes to subsets of items, ~~wherein each item displayed has one or more words in the information associated therewith that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received;~~

in response to each unresolved keystroke, as the identified items are displayed, highlight the ~~alphabetical and numerical symbols of~~ letters and numbers present in the one or more words in said information describing the identified items that were determined to correspond to ~~at least partially match~~ the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items; and

order the displayed items in accordance with one or more given criteria.

REMARKS

This amendment is in response to the Non-final Office Action dated December 3, 2009. Claims 2-4, 6-9, 11-13, 15-18, 27-29, and 31-37 were pending in the application. These claims were rejected for the reasons set forth below. Claims 35-37 have been amended. No claims have been added or cancelled. Reconsideration is respectfully requested.

Telephonic Interview of March 22, 2010

We thank Examiner Reyes for the telephonic interview held March 22, 2010, with the undersigned. During the interview, the participants discussed the rejection of claim 35, Verbeck Sibley et al. (U.S. Pat. Pub. No. 2006/0167859), Ortega et al. (U.S. Patent No. 6,564,213), Belfiore et al. (U.S. Patent No. 6,009,459), and potential claim amendments to clarify the highlighting aspect of the claimed invention. Examiner Reyes stated that amendments further clarifying the highlighting aspect of the claimed invention would be helpful.

Claim Rejections – 35 U.S.C. § 103

Claims 2-9, 11-18 and 27-37 were rejected under 35 U.S.C. 103(a) as being unpatentable over Verbeck in view of Ortega and Belfiore. See Office Action at pg. 2. We have amended claims 35-37 and respectfully request reconsideration. The comments below are directed to claim 35, as claims 36 and 37 include equivalent limitations.

Amended claim 35 now recites associating subsets of items with corresponding strings of one or more unresolved keystrokes so that the subsets are directly mapped to the corresponding strings and, for a subset, determining letters and numbers present in information associated with and describing the items of the subset that correspond to alphabetical and numerical symbols in fixed association with the strings of unresolved keystrokes that are directly mapped to said subset. The claim further includes receiving unresolved keystrokes from a user, identifying subsets of items directly mapped to the unresolved keystrokes, and highlighting the letters and numbers present in the words in the information describing the identified items that were determined to correspond to

the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received.

None of the cited references teach or suggest this combination of elements. Specifically, none of the cited references, alone or in combination, teach or suggest determining letters and numbers present in information associated with and describing items in a subset that correspond to alphabetical and numerical symbols in fixed association with the strings of unresolved keystrokes that are directly mapped to said subset and later highlighting these letters and numbers in response to a user's unresolved keystroke input. Thus, we submit that the claims, as amended, are patentable over the cited references.

The Office Action states that Verbeck discloses receiving a user search query of unresolved keystrokes and displaying items and information associated therewith based on matching alphabetical and numerical symbols which are in fixed association with the unresolved keystrokes with the words in the information associated with the items. See Office Action at pg. 3. The Office Action also states that Belfiore describes highlighting words in searched information that match the search terms entered by a user. See Office Action at pg. 5. The Office Action then concludes that the combination of Verbeck and Belfiore teach highlighting alphabetical and numerical symbols in words of information associated with items that at least partially match the symbols in fixed association with unresolved keystrokes received from a user. See Office Action at pgs. 5-6.

We disagree that the combination of Verbeck and Belfiore would result in the highlighting features recited in amended claim 35. First, simply highlighting in the result set any occurrence of the search term entered by the user is not the equivalent of the highlighting element of claim 35. Belfiore describes highlighting, in a returned web page, the search terms entered by the user. See Belfiore at col. 4, lns. 8-18. The search terms submitted to the search engine in Verbeck are unambiguous words resulting from a lexical expansion; meanwhile, the user input is ambiguous.

Thus, combining the teachings of Verbeck and Belfiore would result in highlighting any occurrence of the ambiguous search string in the returned web page, not the information passed to the search engine.

Secondly, neither Verbeck nor Belfiore teach or suggest determining letters and numbers present in information describing the items of a subset that correspond to the alphabetical and numerical symbols in fixed association with the strings of unresolved keystrokes that are directly mapped to the subset. As we mentioned above, we disagree that one having skill in the art would derive the highlighting of unambiguous letters and numbers appearing in search results that correspond to the alphabetical and numerical symbols in fixed association with a user's unresolved keystroke entry. However, even if one skilled in the art arrived that this combination, the highlighting feature recited in amended claim 35 is still distinguishable from this combination.

Claim 35 requires the determination of what letters and numbers in information describing particular items caused the items to be grouped in a particular subset that is directly mapped to a particular string of unresolved keystrokes. It is these letters and numbers that are later highlighted upon identification and display of the subset of items, not simply any letters and numbers that correspond to the unresolved keystrokes. The Application provides an example of this feature in Fig. 6B and the description at ¶¶ 35-38, as filed. Specifically, if a user enters the unresolved keystrokes "866", the system returns the subset of items shown in Fig. 6B that are directly mapped to that string. The item "Twelve Monkeys(1995)" is one of the items included in the subset directly mapped to "866".

The item "Twelve Monkeys(1995)" was included in the subset mapped to "866" because the first word "Twelve" begins with a "T", which corresponds to the "8" entered by the user, and the second word "Monkeys" starts with "Mo", which corresponds to the "66" entered by the user. Thus, it is these specific letters that are highlighted in the item's title in the subset of items displayed. In contrast, because none of the cited references teach a determination of what letters and numbers in an item's information correspond to the symbols associated with unresolved

keystroke strings mapped to the subset, the combination set forth in the Office Action would not achieve this result. Rather, no characters would be highlighted in the item “Twelve Monkeys(1995)”, because none of the lexical expansion¹ results for “866” (as disclosed by Verbeck) would match the letters in the title of that item. Said differently, there is no sequence of letters in “Twelve Monkeys(1995)” that match any of the 27 permutations of “T U V” (corresponding to “8”) and “M N O” (corresponding to the first “6”) and “M N O” (corresponding to the second “6”) that Verbeck would submit to a search engine in response to receiving “866” from the user.

In contrast, claim 35 now requires determining letters and numbers present in information associated with and describing items in a subset that correspond to alphabetical and numerical symbols in fixed association with the strings of unresolved keystrokes that are directly mapped to said subset and later highlighting these letters and numbers in response to a user’s unresolved keystroke input. This combination of elements allows for great flexibility in what forms of input are accepted from a user (*e.g.*, a single-word term, a multi-word term, an abbreviation, etc.) while maintaining the ability to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items. See Application at ¶¶ 30-39. The cited references do not teach or suggest these elements.

Thus, as the cited references do not teach or suggest all elements of amended independent claim 35, we respectfully submit that the Office Action does not set forth a *prima facie* case for obviousness for claim 35. Claims 36 and 37 include equivalent limitations to those found in claim 35. Thus, for the reasons given above, we submit that independent claims 35-37 are patentable over the cited references. Claims 2-4, 6-9, 11-13, 15-18, 27-29, and 31-34 depend from one of claims

¹ In our Amendment dated September 4, 2009, we explained that Verbeck describes performing a “lexical expansion” of the ambiguous search string to generate many unambiguous search strings and then performs a search for content based on the unambiguous search strings. Thus, as each character is entered, the number of unambiguous search strings that are generated increase at a geometric rate. Each of these search strings is then compared to metadata associated with the content items to determine if the content item qualifies as a result. See Verbeck at ¶¶ 24-57.

35-37 and include the combination recited therein. Thus, we submit these claims are also patentable for the reasons set forth above.

In view of the above amendment, we submit the pending application is in condition for allowance.

We include a petition for a one-month extension of time and authorization to charge the appropriate fees herewith. We believe no other fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0290672.00129US2 from which the undersigned is authorized to draw.

Respectfully submitted,

Dated: March 26, 2010

/John V. Hobgood/
John V. Hobgood
Registration No.: 61,540
Attorney for Applicant(s)

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/312,908	12/20/2005	Sashikumar Venkataraman	0290672.00129US2	4622
23483	7590	12/03/2009		
WILMERHALE/BOSTON 60 STATE STREET BOSTON, MA 02109			EXAMINER REYES, MARIELA D	
			ART UNIT 2167	PAPER NUMBER
			NOTIFICATION DATE 12/03/2009	DELIVERY MODE ELECTRONIC

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

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

michael.mathewson@wilmerhale.com
teresa.carvalho@wilmerhale.com
sharon.matthews@wilmerhale.com

Office Action Summary	Application No. 11/312,908	Applicant(s) VENKATARAMAN ET AL.	
	Examiner Mariela D. Reyes	Art Unit 2167	

-- 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) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 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 September 2009.
- 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) 2-9, 11-18 and 27-37 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) 2-9, 11-18 and 27-37 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 _____ 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) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

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 September 4, 2009 has been entered.

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 negated by the manner in which the invention was made.

Claims 2-9, 11-18 and 27-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbeck et al (US PG Pub 2006/0167859) in view of Ortega et al (US Patent 6,564,213) and Belfiore et al (US Patent 6,009,459).

With respect to independent claim 35:

Verbeck teaches:

A method of processing unresolved keystroke entries by a user from a keypad with overloaded keys in which a given key is in fixed association with a number and at least one alphabetic character, said unresolved keystroke entries

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being directed at identifying an item from a set of items, each of said items being associated with information describing the item comprising one or more words, said method comprising:

Receiving from a user a search query for desired items composed of unresolved keystrokes, said search query comprising a prefix substring for at least one word in information associated with the desired item; (Paragraph [010], discloses using an ambiguous keypad to enter a search query)

In response to each unresolved keystroke, identifying and displaying at least one of the subset of items and information associated therewith, wherein each item displayed has one or more words in the information associated therewith that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received; (Paragraph [011], discloses that as a new keystroke is entered a result is dynamically presented to the user)

Ordering the displayed items in accordance with one or more given criteria. (Paragraph [012], discloses ranking the results)

Verbeck does not appear to explicitly disclose:

Indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of unresolved keystrokes for various search query prefix substrings; in response to each unresolved keystroke, as the identified items are displayed, highlighting the

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alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items.

Ortega teaches:

Indexing said items by associating subsets of said items (datasets) with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings; (Column 2 Lines 6-10, discloses indexing the database objects by creating datasets that contain the autocomplete strings for the system. This datasets being directly associated with the input of the unresolved keywords, therefore when a user enters an ambiguous keystroke the datasets are accessed to retrieve the object that is mapped to said entered keystroke)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the cited references to implement **indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings** because this would significantly reduce the number of keystrokes needed to enter a query. (See Ortega Column 2 Lines 42-44)

The combination of Verbeck and Ortega does not appear to explicitly disclose:

In response to each unresolved keystroke, As the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items.

Belfiore teaches:

In response to each unresolved keystroke, As the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items. (Column 4 Lines 20-29, discloses highlighting words (alphanumeric symbols) in the searched information that match the search term entered by the user this is done so that user can easily identify the information being requested)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the cited references to implement **In response to each unresolved keystroke, as the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed**

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association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items because this would help a user in identifying why that search result matches the search query.

With respect to claim 2:

Verbeck does not appear to explicitly disclose **Said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.**

Belfiori teaches **said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.** (Column 4 Lines 20-29)

With respect to claim 3:

Verbeck teaches:

Said one or more given criteria include one or more of: temporal relevance, location relevance, popularity, personal preferences and character count.

(Paragraph [022], discloses that the ranking criteria would be based on users personal preferences)

With respect to claim 4:

Verbeck teaches:

Said one or more items are ordered such that items having single-word or multi-word term matches are displayed before items having single-word or multi-word abbreviation matches. (Paragraphs [025]-[058], discloses presenting the search matches by first presenting exact search matches and then abbreviation matches)

With respect to claim 6:

Verbeck teaches:

Said search query is processed by a server system remote from said user.

(Paragraph [020], discloses that the query could be processed in a remote server)

With respect to claim 7:

Verbeck teaches:

Said search query is processed by said device operated by said user.

(Paragraph [020], discloses that the query could be processed in the TV)

With respect to claim 8:

Verbeck teaches:

Said items comprise television content items, or a product or service sought by the user. (Paragraph [005])

With respect to claim 9:

Verbeck teaches:

Said device is a cell phone, desk phone, a PDA, or a remote control device for a television. (Paragraph [009])

With respect to independent claim 36:

Verbeck teaches:

A system for processing unresolved keystroke entries by a user from a keypad with overloaded keys in which a given key is in fixed association with a number and at least one alphabetical character, said unresolved keystroke entries being directed at identifying an item from a set of items, each of said items being associated with information describing the item comprising one or more words, said system comprising a computer readable medium comprising instructions for causing a computer system to:

Receiving from a user a search query for desired items composed of unresolved keystrokes, said search query comprising a prefix substring for at least one word in information associated with the desired item; (Paragraph [010], discloses using an ambiguous keypad to enter a search query)

In response to each unresolved keystroke, identifying and displaying at least one of the subset of items and information associated therewith, wherein each item displayed has one or more words in the information associated therewith that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received; (Paragraph [011],

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discloses that as a new keystroke is entered a result is dynamically presented to the user)

Ordering the displayed items in accordance with one or more given criteria.

(Paragraph [012], discloses ranking the results)

Verbeck does not appear to explicitly disclose:

Indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings; in response to each unresolved keystroke, as the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items.

Ortega teaches:

Indexing said items by associating subsets of said items (datasets) with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings; (Column 2 Lines 6-10, discloses indexing the database objects by creating datasets that contain the autocomplete strings for the system. This datasets being directly associated with

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the input of the unresolved keywords, therefore when a user enters an ambiguous keystroke the datasets are accessed to retrieve the object that is mapped to said entered keystroke)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the cited references to implement **indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings** because this would significantly reduce the number of keystrokes needed to enter a query. (See Ortega Column 2 Lines 42-44)

The combination of Verbeck and Ortega does not appear to explicitly disclose:

In response to each unresolved keystroke, As the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items.

Belfiore teaches:

In response to each unresolved keystroke, As the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received

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so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items. (Column 4 Lines 20-29, discloses highlighting words (alphanumeric symbols) in the searched information that match the search term entered by the user this is done so that user can easily identify the information being requested)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the cited references to implement **In response to each unresolved keystroke, as the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items** because this would help a user in identifying why that search result matches the search query.

With respect to claim 11:

Verbeck does not appear to explicitly disclose **Said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.**

Belfiori teaches **said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.** (Column 4 Lines 20-29)

With respect to claim 12:

Verbeck teaches:

Said one or more given criteria include one or more of: temporal relevance, location relevance, popularity, personal preferences and character count.

(Paragraph [022], discloses that the ranking criteria would be based on users personal preferences)

With respect to claim 13:

Verbeck teaches:

Said one or more items are ordered such that items having single-word or multi-word term matches are displayed before items having single-word or multi-word abbreviation matches. (Paragraphs [025]-[058], discloses presenting the search matches by first presenting exact search matches and then abbreviation matches)

With respect to claim 15:

Verbeck teaches:

Said search query is processed by a server system remote from said user.

(Paragraph [020], discloses that the query could be processed in a remote server)

With respect to claim 16:

Verbeck teaches:

Said search query is processed by said device operated by said user.

(Paragraph [020], discloses that the query could be processed in the TV)

With respect to claim 17:

Verbeck teaches:

Said items comprise television content items, or a product or service sought by the user. (Paragraph [005])

With respect to claim 18:

Verbeck teaches:

Said device is a cell phone, desk phone, a PDA, or a remote control device for a television. (Paragraph [009])

With respect to independent claim 37:

Verbeck teaches:

A computer program product for processing unresolved keystroke entries by a user from a keypad with overloaded keys in which a given key is in fixed association with a number and at least one alphabetic character, said unresolved keystroke entries being directed at identifying an item from a set of items, each of said items being associated with information describing the item comprising one or more words, said computer program product residing on a computer readable

medium having a plurality of instructions stored thereon which, when executed by a processor, cause the processor to:

Receiving from a user a search query for desired items composed of unresolved keystrokes, said search query comprising a prefix substring for at least one word in information associated with the desired item; (Paragraph [010], discloses using an ambiguous keypad to enter a search query)

In response to each unresolved keystroke, identifying and displaying at least one of the subset of items and information associated therewith, wherein each item displayed has one or more words in the information associated therewith that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received; (Paragraph [011], discloses that as a new keystroke is entered a result is dynamically presented to the user)

Ordering the displayed items in accordance with one or more given criteria. (Paragraph [012], discloses ranking the results)

Verbeck does not appear to explicitly disclose:

Indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of unresolved keystrokes for various search query prefix substrings; in response to each unresolved keystroke, as the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information

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that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items.

Ortega teaches:

Indexing said items by associating subsets of said items (datasets) with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings; (Column 2 Lines 6-10, discloses indexing the database objects by creating datasets that contain the autocompletion strings for the system. This datasets being directly associated with the input of the unresolved keywords, therefore when a user enters an ambiguous keystroke the datasets are accessed to retrieve the object that is mapped to said entered keystroke)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the cited references to implement **indexing said items by associating subsets of said items with corresponding strings of one or more unresolved keystrokes for overloaded keys so that the subsets of items are directly mapped to the corresponding strings of un resolved keystrokes for various search query prefix substrings** because this would significantly reduce the number of keystrokes needed to enter a query. (See Ortega Column 2 Lines 42-44)

The combination of Verbeck and Ortega does not appear to explicitly disclose:

In response to each unresolved keystroke, As the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items.

Belfiore teaches:

In response to each unresolved keystroke, As the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user how the unresolved keystrokes entered match the information associated with the displayed items. (Column 4 Lines 20-29, discloses highlighting words (alphanumeric symbols) in the searched information that match the search term entered by the user this is done so that user can easily identify the information being requested)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of the cited references to implement **In response to each unresolved keystroke, as the identified items are displayed, highlighting the alphabetical and numerical symbols of the one or more words in said information that at least partially match the alphabetical and numerical symbols in fixed association with the unresolved keystrokes received so as to illustrate to the user**

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how the unresolved keystrokes entered match the information associated with the displayed items because this would help a user in identifying why that search result matches the search query.

With respect to claim 27:

Verbeck does not appear to explicitly disclose **Said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.**

Belfiori teaches **said alphabetical and numeric symbols are highlighted by being colored, bolded, italicized, underlined, or changed to a different font, or some combination thereof.** (Column 4 Lines 20-29)

With respect to claim 28:

Verbeck teaches:

Said one or more given criteria include one or more of: temporal relevance, location relevance, popularity, personal preferences and character count.

(Paragraph [022], discloses that the ranking criteria would be based on users personal preferences)

With respect to claim 29:

Verbeck teaches:

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Said one or more items are ordered such that items having single-word or multi-word term matches are displayed before items having single-word or multi-word abbreviation matches. (Paragraphs [025]-[058], discloses presenting the search matches by first presenting exact search matches and then abbreviation matches)

With respect to claim 31:

Verbeck teaches:

Said search query is processed by a server system remote from said user.

(Paragraph [020], discloses that the query could be processed in a remote server)

With respect to claim 32:

Verbeck teaches:

Said search query is processed by said device operated by said user.

(Paragraph [020], discloses that the query could be processed in the TV)

With respect to claim 33:

Verbeck teaches:

Said items comprise television content items, or a product or service sought by the user. (Paragraph [005])

With respect to claim 34:

Verbeck teaches:

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Said device is a cell phone, desk phone, a PDA, or a remote control device for a television. (Paragraph [009])

Response to Arguments

The following is in response to the arguments filed on September 4, 2009.

Claim Rejections - 35 USC § 103

With respect to independent claims:

Applicant's arguments with respect to the indexing limitation previously being taught by Verbeck are moot in view of the new ground(s) of rejection.

Applicant also argues “**Belfiore fails to disclose highlighting in response to each unresolved keystroke, the portions of the content items that match the user’s search query**” Examiner respectfully disagrees. Verbeck (Paragraph [011]) discloses after each keystroke is entered presenting a result set based on the keystrokes. Belfiore (Column 4 Lines 9-19) discloses highlighting the search results after a search is executed. Belfiore is relied upon for the highlighting of the matching (to the query) search terms; however Verbeck teaches presenting real time results to entering a search query. The combination of both references teaches the method of highlighting the dynamically generated search results.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariela D. Reyes whose telephone number is (571) 270-1006. The examiner can normally be reached on M - F 7:30- 5:00 East time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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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). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/
Supervisory Patent Examiner, Art
Unit 2167

/Mariela D Reyes/
Examiner, Art Unit 2167
November 24, 2009