

Exhibit B-1 (Amended)

CLAIMS

308 A17

1. A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

receiving in real time an indication that the item is of current interest;

5 processing the indication; and

informing the participant that the item is of current interest.

2. The method of claim 1 wherein processing the indication comprises determining an intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.

10 3. The method of claim 2 wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.

4. The method of claim 3, further comprising:

15 associating the item with a category of interest to which the item relates;

receiving from the participant a selection of one or more categories of interest to the participant;

identifying all items of current interest within the selected categories;

ranking the identified items of current interest; and

20 sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest;

wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank.

5 5. The method of claim 1, further comprising receiving a comment relating to the item.

6. The method of claim 1, further comprising receiving data identifying the source of the indication.

7. The method of claim 1, further comprising associating the item with a category of interest to which the item relates.

10 8. The method of claim 7, wherein the item is associated with a category of interest identified by the source of the indication of current interest.

9. The method of claim 1, wherein the item is one of a plurality of items of current interest, further comprising:

associating the item with a category of interest to which the item relates;

15 receiving from the participant a selection of one or more categories of interest to the participant; and

identifying all items of current interest within the selected categories.

10. The method of claim 9, further comprising:

ranking the identified items of current interest; and

20 sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest.

11. The method of claim 10, wherein the ranking of each item is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item.

12. The method of claim 9, further comprising receiving an indication of the participant's sensitivity with respect to each category of interest to the participant, whereby an indication of a relatively low level of sensitivity indicates the participant does not want to be informed that an item is of current interest unless one or more indications have been received that indicate a relatively high level of current interest with respect to an item in the corresponding category and an indication of a relatively high level of sensitivity indicates the participant wants to be informed that an item is of current interest even if only one indication indicating a relatively low level of current interest has been received with respect to an item in the corresponding category.

13. The method of claim 12, further comprising:
ranking the identified items of current interest; and
sending to the participant a ranked list including at least one of the identified items of current interest;
wherein the ranking of each item is based, at least in part, on the sensitivity of the participant with respect to each category associated with the item.

14. The method of claim 1, wherein the item is identified by a Uniform Resource Locator (URL).

15. The method of claim 1, further comprising storing data relating to the indication in a database.

16. The method of claim 1, further comprising determining the weight to be given to the indication.

17. The method of claim 1, wherein the indication is received automatically if a participant accesses the item.

5 18. The method of claim 1, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

19. A system for disseminating to participants an indication that an item accessible by the participant via a network is of current interest, comprising:

10 a computer configured to receive in real time an indication that the item is of current interest; process the indication; and inform the participant that the item is of current interest; and

a database, associated with the computer, configured to store data relating to the item.

15 20. A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

receiving in real time an indication that the item is of current interest;

processing the indication; and

20 informing the participant that the item is of current interest.

PR4



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,638	09/07/2000	Michael Naimark	INTIP206	1636

21912 7590 04/09/2003

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EXAMINER

PUNIT, PRAKASH C

ART UNIT	PAPER NUMBER
2175	24

DATE MAILED: 04/09/2003

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

PP4

Office Action Summary	Application No.	Applicant(s)	
	09/656,638	NAIMARK ET AL.	
	Examiner	Art Unit	
	Prakash C Punit	2175	

-- 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 _____.
- 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) 1-20 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) 1-20 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).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) 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.

- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.

- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2 & 3</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. 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 a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Eichstaedt et al. (U.S. Patent No.6,385,619).

As to claim 1, Eichstaedt et al. teaches a method of disseminating (i.e. presenting to the users) to a participant an indication that an item accessible by the participant via a network is of current interest (see Abstract), comprising:

receiving in real time an indication that the item is of current interest (see Abstract; see column 1, lines 43-55; where “real time” is read on “non-static information”);

processing (i.e. analyzing and profile generating) the indication (see column 3, lines 20); and informing the participant that the item is of current interest (see Fig. 2, element 64; see column 1, lines 56-62; also see column 3, lines 18-20).

As to claim 2, Eichstaedt et al. teaches a method, wherein processing the indication comprises determining an intensity value (i.e. numerical value) for the indication based on at least one attribute of the indication (see column 3, lines 29-38), the intensity value (i.e. numerical value) representing the weight that will be given to the indication (see column 3, lines 49-54).

As to claim 3, Eichstaedt et al. teaches a method, wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value (i.e. numerical value) of the indication (see column 3, lines 28-64), the intensity rank indicating the level of current interest of the item relative to other items (see column 3, lines 49-53; where “intensity rank” is read on “weight”).

As to claim 4, Eichstaedt et al. teaches a method, further comprising:
associating the item with a category of interest to which the item relates (see column 2, lines 42-48);

receiving from the participant a selection of one or more categories of interest to the participant (see column 2, lines 20-37);

identifying all items of current interest within the selected categories (see column 3, 39-50; also see column 4, lines 31-39);

ranking the identified items of current interest (see column 3, lines 49-54; also see column 4, lines 4-10); and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest (see column 4, lines 30-39);

wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank (see column 1, lines 46-55; where “intensity rank” is read on “interest score”).

As to claim 5, Eichstaedt et al. teaches a method, further comprising receiving a comment relating to the item (see column 3, lines 52-54; where “comment” is read on “user clicks on various parts of a document”).

As to claim 6, Eichstaedt et al. teaches a method, further comprising receiving data identifying the source of the indication (see column 3, lines 15-20; where access analyzer and profile generator analyze information about the user indicates that the source is identified and request is processed and sent back to the user).

As to claim 7, Eichstaedt et al. teaches a method, further comprising associating the item with a category of interest to which the item relates (see column 2, lines 42-65).

As to claim 8, Eichstaedt et al. teaches a method, wherein the item is associated with a category of interest identified by the source of the indication (i.e. user) of current interest (see column 3, lines 49-60).

As to claim 9, Eichstaedt et al. teaches a method, wherein the item is one of a plurality of items (i.e. specific documents) of current interest (see column 1, lines 52-55; also see column 3, lines 10-14), further comprising:

associating the item with a category of interest to which the item relates (see column 2, lines 42-65);

receiving (i.e. system generating profile) from the participant a selection of one or more categories of interest to the participant (see column 4, lines 31-43); and

identifying all items of current interest within the selected categories (see column 1, lines 39-42; also see column 2, lines 20-65).

As to claim 10, Eichstaedt et al. teaches a method, further comprising:

Ranking (i.e. weight) the identified items of current interest (see column 3, lines 49-54; also see column 4, lines 4-10); and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest (see column 4, lines 30-39);

As to claim 11, Eichstaedt et al. teaches a method, wherein the ranking of each item (see column 3, lines 49-52) is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item (see column 4, lines 4-28).

As to claim 12, Eichstaedt et al. teaches a method, further comprising receiving an indication of the participant's sensitivity with respect to each category of interest to the participant (see Abstract; see column 1, lines 35-55), whereby an indication of a relatively low level of sensitivity (i.e. low weight) indicates the participant does not want to be informed that an item is of current interest unless one or more indications have been received that indicate a relatively high level of current interest (i.e. high weight) with respect to an item in the corresponding category (see column 4, lines 31-55) and an indication of a relatively high level of sensitivity (i.e. high weight) indicates the participant wants to be informed that an item is of current interest even if only one indication indicating a relatively low level of current interest (i.e. low weight) has been received with respect to an item in the corresponding category (see column 4, lines 4-28; also see column 5, lines 2-29).

As to claim 13, Eichstaedt et al. teaches a method, further comprising:
ranking the identified items of current interest (see column 3, lines 49-54; also see column 4, lines 4-10); and
sending to the participant a ranked list including at least one of the identified items of current interest (see column 4, lines 30-39);

wherein the ranking of each item is based, at least in part, on the sensitivity of the participant with respect to each category associated with the item (see column 1, lines 46-55; where “intensity rank” is read on “interest score”).

As to claim 14, Eichstaedt et al. teaches a method, wherein the item is identified by a Uniform Resource Locator (URL) (see column 5, lines 58-60; where system works in an HTML and XML browser environment implies the topics can be identified by URL).

As to claim 15, Eichstaedt et al. teaches a method, further comprising storing data (i.e. database 60) relating to the indication in a database (see Fig. 2, element 60; see column 3, lines 8-15).

As to claim 16, Eichstaedt et al. teaches a method, further comprising determining the weight to be given to the indication (see column 3, lines 49-60).

As to claim 17, Eichstaedt et al. teaches a method, wherein the indication (i.e. content viewed by user) is received automatically if a participant accesses the item (see column 1, lines 41-44; also see column 2, lines 15-19).

As to claim 18, Eichstaedt et al. teaches a method, further comprising providing one or more participants with an interface (i.e. Browser Client 56) to send an indication that an item is of current interest (see Fig. 2; also see column 3, lines 7-10).

As to claim 19, Eichstaedt et al. teaches a system for disseminating (i.e. presenting to the users) to participants an indication that an item accessible by the participant via a network is of current interest (see Abstract), comprising:

a computer configured to receive in real time an indication that the item is of current interest (see Fig. 2; see column 3, lines 7-18; also see column 1, lines 52-55); process the indication (see column 3, lines 20; where “process” is read on “analyze and profile generation”); and inform the participant that the item is of current interest (see Fig. 2, element 64; see column 1, lines 56-62; also see column 3, lines 18-20); and

a database (60), associated with the computer, configured to store data relating to the item (see column 3, lines 7-15; where “data” is read on “documents”).

As to claim 20, Eichstaedt et al. teaches a computer program product for disseminating (i.e. presenting to the users) to a participant an indication that an item accessible by the participant via a network (i.e. web) is of current interest (see column 1, lines 35-55), the computer program product being embodied in a computer readable medium (see column 3, lines 7-11) and comprising computer instructions for:

receiving in real time an indication that the item is of current interest (see Abstract; see column 1, lines 43-55; where “real time” is read on “non-static information”);

processing (i.e. analyzing and profile generating) the indication (see column 3, lines 20); and informing the participant that the item is of current interest (see Fig. 2, element 64; see column 1, lines 56-62; also see column 3, lines 18-20).

Conclusion

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

The following patents are cited to further show the state of art with respect method of alerting users to items of current interest in general:

U.S. Patent No. 6,385,619 to Eichstaedt et al. - teaches user interest profile generation

U.S. Patent No. 6,208,989 to Dockter et al. - teaches ranking based on weight

U.S. Patent No. 5,535,382 to Ogawa - teaches ranking of documents

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prakash Punit whose telephone number is (703) 305-5914. The examiner can normally be reached on Mondays – Fridays from 9:45 am to 6:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on (703) 305-3830. The fax numbers of the group is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Application/Control Number: 09/656,638
Art Unit: 2175

Page 10

Prakash Punit
Patent Examiner

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TECHNOLOGY CENTER 2100



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of
NAIMARK, et al

Examiner: Prakash C. Punit

Art Unit: 2175

Serial No. 09/656,638

Docket No. INT1P206

Filed: September 7, 2000

July 2, 2003

RECEIVED

Title: ALERTING USERS TO ITEMS
OF CURENT INTEREST

JUL 10 2003

Technology Center 2100

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on July 3, 2003.

Signed: Pat Tate
Pat Tate

AMENDMENT A

Honorable Commissioner for Patents
Washington, DC 20231

Dear Sir:

This is in response to the Office Action mailed April 9, 2003. The following amendments and remarks are respectfully submitted.

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 7, with the following rewritten paragraph:

-- This application is related to co-pending U.S. Patent Application No.

09/656,518, now U.S. Patent No. 6,556,989 _____ (Attorney Docket No. INT1P209)

entitled "Quantifying The Level Of Interest Of An Item Of Current Interest" filed concurrently

herewith, which is incorporated herein by reference for all purposes; and co-pending U.S. Patent

Application No. 09/658,346 _____ (Attorney Docket No. INT1P210) entitled

"Normalizing A Measure Of The Level Of Current Interest Of An Item Accessible Via A

Network" filed concurrently herewith, which is incorporated herein by reference for all purposes.

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This application claims priority to U.S. Provisional Patent No. 60/178,627 entitled "Alerting users to web sites of current interest and handling large increases in user traffic" filed January 28, 2000 which is incorporated by reference for all purposes.
herein

CAC
3-16-04

IN THE CLAIMS

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

Listing of Claims:

- SUB B17**
1. (Currently amended) A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:
 - receiving in real time from a source other than the participant an indication that the item is of current interest;
 - processing the indication; and
 - informing the participant that the item is of current interest.
 2. (Original) The method of claim 1 wherein processing the indication comprises determining an intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.
 - A1** 3. (Original) The method of claim 2 wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.
 4. (Original) The method of claim 3, further comprising:
 - associating the item with a category of interest to which the item relates;
 - receiving from the participant a selection of one or more categories of interest to the participant;
 - identifying all items of current interest within the selected categories;

ranking the identified items of current interest; and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest;

wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank.

5. (Original) The method of claim 1, further comprising receiving a comment relating to the item.

6. (Original) The method of claim 1, further comprising receiving data identifying the source of the indication.

7. (Original) The method of claim 1, further comprising associating the item with a category of interest to which the item relates.

8. (Original) The method of claim 7, wherein the item is associated with a category of interest identified by the source of the indication of current interest.

9. (Original) The method of claim 1, wherein the item is one of a plurality of items of current interest, further comprising:

associating the item with a category of interest to which the item relates;

receiving from the participant a selection of one or more categories of interest to the participant; and

identifying all items of current interest within the selected categories.

10. (Original) The method of claim 9, further comprising:

ranking the identified items of current interest; and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest.

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11. (Original) The method of claim 10, wherein the ranking of each item is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item.

12. (Original) The method of claim 9, further comprising receiving an indication of the participant's sensitivity with respect to each category of interest to the participant, whereby an indication of a relatively low level of sensitivity indicates the participant does not want to be informed that an item is of current interest unless one or more indications have been received that indicate a relatively high level of current interest with respect to an item in the corresponding category and an indication of a relatively high level of sensitivity indicates the participant wants to be informed that an item is of current interest even if only one indication indicating a relatively low level of current interest has been received with respect to an item in the corresponding category.

13. (Original) The method of claim 12, further comprising:

ranking the identified items of current interest; and

sending to the participant a ranked list including at least one of the identified items of current interest;

wherein the ranking of each item is based, at least in part, on the sensitivity of the participant with respect to each category associated with the item.

14. (Original) The method of claim 1, wherein the item is identified by a Uniform Resource Locator (URL).

15. (Original) The method of claim 1, further comprising storing data relating to the indication in a database.

16. (Original) The method of claim 1, further comprising determining the weight to be given to the indication.

17. (Original) The method of claim 1, wherein the indication is received automatically if a participant accesses the item.

18. (Original) The method of claim 1, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

19. (Currently amended) A system for disseminating to a participant ~~participants~~ an indication that an item accessible by the participant via a network is of current interest, comprising:

a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest; process the indication; and inform the participant that the item is of current interest; and

a database, associated with the computer, configured to store data relating to the item.

AI 20. (Currently amended) A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

receiving in real time from a source other than the participant an indication that the item is of current interest;

processing the indication; and

informing the participant that the item is of current interest.

REMARKS

Claims 1, 19, and 20 have been amended to clarify the subject matter regarded as the invention. Claims 1-20 remain pending.

The Examiner has rejected claims 1-20 under 35 U.S.C. §102(e) based on Eichstaedt.

The rejection is respectfully traversed. With respect to claim 1, Eichstaedt describes automatic generation of a user profile, based on monitoring and analyzing a user's access to hierarchical levels within a set of structured documents, and "pushing" webcast content to the user based on the profile so generated. Eichstaedt at col. 1, lines 34-63 and col. 3, lines 7-25. Eichstaedt teaches a way to learn from the choices a user makes in accessing hierarchical levels within a set of structured documents what the user's preferences and/or interests are, and then pushing content to that same user that the user's past choices indicate may be of interest to the user. By contrast, claim 1 as amended recites, "receiving in real time from a source other than the participant an indication that the item is of current interest" and "informing the participant that the item is of current interest". Therefore, claim 1 requires that the indication that the item is of current interest come from a source other than the participant who is informed that the item is of current interest, whereas Eichstaedt teaches learning from a user's own past actions what is of interest to that user. See, e.g., and without limitation, Application at p. 9, line 13 – p. 11, line 15; p. 13, lines 1-5; p. 24, lines 1-9; and Figure 1 (noting in particular the distinction between the alerting user 102 and the participant 104). As such, claim 1 is believed to be allowable over Eichstaedt.

Claims 2-18 depend from claim 1 and are believed to be allowable for the same reasons described above.

Claim 19 recites a system for practicing the method of claim 1 and has been amended in the same manner as claim 1. Therefore, claim 19 is believed to be allowable for the same reasons described above.

Claim 20 recites a computer program product for practicing the method of claim 1 and has been amended in the same manner as claim 1. Therefore, claim 20 is believed to be allowable for the same reasons described above.

Reconsideration of the application and allowance of all claims are respectfully requested based on the preceding remarks. If at any time the Examiner believes that an interview would be helpful, please contact the undersigned.

Respectfully submitted,



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09/656,638	09/07/2000	Michael Naimark	INT1P206	1636

21912 7590 09/16/2003
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EXAMINER

RONES, CHARLES

ART UNIT	PAPER NUMBER
2175	

DATE MAILED: 09/16/2003

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

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Office Action Summary	Application No. 09/656,638	Applicant(s) NAIMARK ET AL.	
	Examiner Charles L. Roncs	Art Unit 2175	

-- 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 7-7-03.
- 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) 1-20 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) 1-20 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).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) 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.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) Other:

DETAILED ACTION

Amendment

The amendment timely filed on July 7, 2003 has been entered.

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 a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Eichstaedt et al. (U.S. Patent No.6,385,619).

As to claim 1, Eichstaedt et al. teaches a method of disseminating (i.e. presenting to the users) to a participant an indication that an item accessible by the participant via a network is of current interest (see Abstract), comprising:

receiving in real time from a source other than the participant an indication that the item is of current interest (see Abstract; see column 1, lines 43-55; where "real time" is read on "non-static information");

processing (i.e. analyzing and profile generating) the indication (see column 3, lines 20); and informing the participant that the item is of current interest (see Fig. 2, element 64; see column 1, lines 56-62; also see column 3, lines 18-20).

As to claim 2, Eichstaedt et al. teaches a method, wherein processing the indication comprises determining an intensity value (i.e. numerical value) for the indication based on at least one attribute of the indication (see column 3, lines 29-38), the intensity value (i.e. numerical value) representing the weight that will be given to the indication (see column 3, lines 49-54).

As to claim 3, Eichstaedt et al. teaches a method, wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value (i.e. numerical value) of the indication (see column 3, lines 28-64), the intensity rank indicating the level of current interest of the item relative to other items (see column 3, lines 49-53; where "intensity rank" is read on "weight").

As to claim 4, Eichstaedt et al. teaches a method, further comprising:

associating the item with a category of interest to which the item relates (see column 2, lines 42-48);

receiving from the participant a selection of one or more categories of interest to the participant (see column 2, lines 20-37);

identifying all items of current interest within the selected categories (see column 3, 39-50; also see column 4, lines 31-39);

ranking the identified items of current interest (see column 3, lines 49-54; also see column 4, lines 4-10); and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest (see column 4, lines 30-39);

wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank (see column 1, lines 46-55; where "intensity rank" is read on "interest score").

As to claim 5, Eichstaedt et al. teaches a method, further comprising receiving a comment relating to the item (see column 3, lines 52-54; where "comment" is read on "user clicks on various parts of a document").

As to claim 6, Eichstaedt et al. teaches a method, further comprising receiving data identifying the source of the indication (see column 3, lines 15-20; where access

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analyzer and profile generator analyze information about the user indicates that the source is identified and request is processed and sent back to the user).

As to claim 7, Eichstaedt et al. teaches a method, further comprising associating the item with a category of interest to which the item relates (see column 2, lines 42-65).

As to claim 8, Eichstaedt et al. teaches a method, wherein the item is associated with a category of interest identified by the source of the indication (i.e. user) of current interest (see column 3, lines 49-60).

As to claim 9, Eichstaedt et al. teaches a method, wherein the item is one of a plurality of items (i.e. specific documents) of current interest (see column 1, lines 52-55; also see column 3, lines 10-14), further comprising:

associating the item with a category of interest to which the item relates (see column 2, lines 42-65);

receiving (i.e. system generating profile) from the participant a selection of one or more categories of interest to the participant (see column 4, lines 31-43); and

identifying all items of current interest within the selected categories (see column 1, lines 39-42; also see column 2, lines 20-65).

As to claim 10, Eichstaedt et al. teaches a method, further comprising:

Ranking (i.e. weight) the identified items of current interest (see column 3, lines 49-54; also see column 4, lines 4-10); and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest (see column 4, lines 30-39);

As to claim 11, Eichstaedt et al. teaches a method, wherein the ranking of each item (see column 3, lines 49-52) is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item (see column 4, lines 4-28).

As to claim 12, Eichstaedt et al. teaches a method, further comprising receiving an indication of the participant's sensitivity with respect to each category of interest to the participant (see Abstract; see column 1, lines 35-55), whereby an indication of a relatively low level of sensitivity (i.e. low weight) indicates the participant does not want to be informed that an item is of current interest unless one or more indications have been received that indicate a relatively high level of current interest (i.e. high weight) with respect to an item in the corresponding category (see column 4, lines 31-55) and an indication of a relatively high level of sensitivity (i.e. high weight) indicates the participant wants to be informed that an item is of current interest even if only one indication indicating a relatively low level of current interest (i.e. low weight) has been

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received with respect to an item in the corresponding category (see column 4, lines 4-28; also see column 5, lines 2-29).

As to claim 13, Eichstaedt et al. teaches a method, further comprising:

ranking the identified items of current interest (see column 3, lines 49-54; also see column 4, lines 4-10); and

sending to the participant a ranked list including at least one of the identified items of current interest (see column 4, lines 30-39);

wherein the ranking of each item is based, at least in part, on the sensitivity of the participant with respect to each category associated with the item (see column 1, lines 46-55; where "intensity rank" is read on "interest score").

As to claim 14, Eichstaedt et al. teaches a method, wherein the item is identified by a Uniform Resource Locator (URL) (see column 5, lines 58-60; where system works in an HTML and XML browser environment implies the topics can be identified by URL).

As to claim 15, Eichstaedt et al. teaches a method, further comprising storing data (i.e. database 60) relating to the indication in a database (see Fig. 2, element 60; see column 3, lines 8-15).

As to claim 16, Eichstaedt et al. teaches a method, further comprising determining the weight to be given to the indication (see column 3, lines 49-60).

As to claim 17, Eichstaedt et al. teaches a method, wherein the indication (i.e. content viewed by user) is received automatically if a participant accesses the item (see column 1, lines 41-44; also see column 2, lines 15-19).

As to claim 18, Eichstaedt et al. teaches a method, further comprising providing one or more participants with an interface (i.e. Browser Client 56) to send an indication that an item is of current interest (see Fig. 2; also see column 3, lines 7-10).

As to claim 19, Eichstaedt et al. teaches a system for disseminating (i.e. presenting to the users) to participants an indication that an item accessible by the participant via a network is of current interest (see Abstract), comprising:

a computer configured to receive in real time an indication that the item is of current interest (see Fig. 2; see column 3, lines 7-18; also see column 1, lines 52-55); process the indication (see column 3, lines 20; where "process" is read on "analyze and profile generation"); and inform the participant that the item is of current interest (see Fig. 2, element 64; see column 1, lines 56-62; also see column 3, lines 18-20); and

a database (60), associated with the computer, configured to store data relating to the item (see column 3, lines 7-15; where "data" is read on "documents").

As to claim 20, Eichstaedt et al. teaches a computer program product for disseminating (i.e. presenting to the users) to a participant an indication that an item

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accessible by the participant via a network (i.e. web) is of current interest (see column 1, lines 35-55), the computer program product being embodied in a computer readable medium (see column 3, lines 7-11) and comprising computer instructions for:

receiving in real time from a source other than the participant an indication that the item is of current interest (see Abstract; see column 1, lines 43-55; where "real time" is read on "non-static information");

processing (i.e. analyzing and profile generating) the indication (see column 3, lines 20); and informing the participant that the item is of current interest (see Fig. 2, element 64; see column 1, lines 56-62; also see column 3, lines 18-20).

Response to Arguments

Applicant's arguments filed July 7, 2003 have been fully considered but they are not persuasive.

Applicant argues that Eichstaedt does not disclose receiving in real time from a source other than the participant an indication that the item is of current interest.

In response, Examiner maintains that Eichstaedt discloses such wherein analyzer and profile generator generates a profile used to provide customized information is deemed to be from the profile as the source not directly from the participant in one embodiment; See 3:8-25.

Conclusion

THIS ACTION IS MADE FINAL. 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 mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Roncs whose telephone number is (703-306-3030). The examiner can normally be reached on Mondays – Fridays from Monday-Thursday 8am-4pm pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on (703-305-3830). The fax numbers of the group is (703) 746-7239.

Application/Control Number: 09/656,638
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Page 11

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.



Charles L. Rones
Primary Examiner
Art Unit 2175



#9B
12/11/03
A.W.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of
NAIMARK, et al

Examiner: Charles Rones

Art Unit: 2175

Serial No. 09/656,638

Docket No. INT1P206

Filed: September 7, 2000

November 24, 2003

Title: ALERTING USERS TO
ITEMS OF CURRENT INTEREST

RECEIVED
DEC 04 2003
Technology Center 2100

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 24, 2003.

Signed:

Jennifer C. Gross

AMENDMENT B

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1540

Dear Examiner Rones:

This is in response to the Office Action mailed September 16, 2003. The following amendments and remarks are respectfully submitted.

IN THE CLAIMS

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

Listing of Claims:

3. ~~1.~~ (Currently amended) A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

- receiving in real time from a source other than the participant an indication that the item is of current interest;
- processing the indication; ~~and~~
- determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source; and

informing the participant that the item is of current interest.

B1

4. ~~2.~~ (Currently amended) The method of claim ³ ~~1~~ wherein processing the indication comprises determining ~~[[an]]the~~ intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.

5. ~~3.~~ (Original) The method of claim ⁴ ~~2~~ wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.

6
A. (Original) The method of claim 3, further comprising:

associating the item with a category of interest to which the item relates;

receiving from the participant a selection of one or more categories of interest to the participant;

identifying all items of current interest within the selected categories;

ranking the identified items of current interest; and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest;

wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank.

B1
7
5. (Original) The method of claim 3, further comprising receiving a comment relating to the item.

8
6. (Original) The method of claim 3, further comprising receiving data identifying the source of the indication.

9
7. (Original) The method of claim 3, further comprising associating the item with a category of interest to which the item relates.

10
8. (Original) The method of claim 9, wherein the item is associated with a category of interest identified by the source of the indication of current interest.

11 3
9. (Original) The method of claim 8, wherein the item is one of a plurality of items of current interest, further comprising:

associating the item with a category of interest to which the item relates;

receiving from the participant a selection of one or more categories of interest to the participant; and

identifying all items of current interest within the selected categories.

12 11
10. (Original) The method of claim 9, further comprising:

ranking the identified items of current interest; and

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest.

B1 13 12
11. (Original) The method of claim 10, wherein the ranking of each item is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item.

14 11
12. (Original) The method of claim 9, further comprising receiving an indication of the participant's sensitivity with respect to each category of interest to the participant, whereby an indication of a relatively low level of sensitivity indicates the participant does not want to be informed that an item is of current interest unless one or more indications have been received that indicate a relatively high level of current interest with respect to an item in the corresponding category and an indication of a relatively high level of sensitivity indicates the participant wants to be informed that an item is of current interest even if only one indication

indicating a relatively low level of current interest has been received with respect to an item in the corresponding category.

¹⁵ ~~13~~. (Original) The method of claim ¹⁴~~12~~, further comprising:

ranking the identified items of current interest; and

sending to the participant a ranked list including at least one of the identified items of current interest;

wherein the ranking of each item is based, at least in part, on the sensitivity of the participant with respect to each category associated with the item.

¹⁴ ~~14~~. (Original) The method of claim ³~~1~~, wherein the item is identified by a Uniform Resource Locator (URL).

¹⁷ ~~15~~. (Original) The method of claim ³~~1~~, further comprising storing data relating to the indication in a database.

¹⁸ ~~16~~. (Original) The method of claim ³~~1~~, further comprising determining the weight to be given to the indication.

¹⁹ ~~17~~. (Original) The method of claim ³~~1~~, wherein the indication is received automatically if a participant accesses the item.

20

3

18. (Original) The method of claim 1, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

1

19. (Currently amended) A system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest; process the indication; determine an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source; and; and inform the participant that the item is of current interest; and

a database, associated with the computer, configured to store data relating to the item.

2

20. (Currently amended) A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

receiving in real time from a source other than the participant an indication that the item is of current interest;

processing the indication; ~~and~~

determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source; and

informing the participant that the item is of current interest.

B1

INTERVIEW SUMMARY UNDER 37 CFR §1.133 AND MPEP §713.04

A telephonic interview in the above-referenced case was conducted on November 18, 2003 between the Examiner and the Applicants' undersigned representative. The Final Office Action mailed on September 16, 2003 was discussed. Specifically, the rejections of claims 1-20 in light of Eichstaedt et al. (U.S. Patent No. 6,385,619) and the proposed amendments set forth herein were discussed with the intent to place the claims in better condition for allowance or appeal. The Applicants wish to thank the Examiner for his time and attention in this case.

REMARKS

Claims 1, 19 and 20 have been amended to clarify the subject matter regarded as the invention. Claims 1-20 remain pending.

The Examiner has rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by Eichstaedt et al. (U.S. Patent No. 6,385,619).

The rejection is respectfully traversed. As amended, claim 1 recites "...determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source..." Eichstaedt et al. discloses ranking categories and generating profiles, but based on feedback from the user following interaction with an item. (Col. 3, lines 28-67). The weight of a category is based on the number of user clicks on a document or actions expressed by the user. (Col. 3, lines 52-54). Eichstaedt et al. does not disclose an intensity value adjusted based on a characteristic for an item provided by a source, as in the claimed invention. Thus, claim 1 is allowable for the reasons stated above.

Claims 2-18 depend from claim 1 and are believed to be allowable for the same reasons described above. As claims 19 and 20 were amended similarly to claim 1, Applicants submit that these claims are also allowable for the same reasons as claim 1.

Reconsideration of the application and allowance of all claims are respectfully requested based on the preceding remarks. If at any time the Examiner believes that an interview would be helpful, please contact the undersigned.

Respectfully submitted,



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1-31-00

ATTORNEY DOCKET NO. INT1P206+

IN THE U.S. PATENT AND TRADEMARK OFFICE
Provisional Application Cover Sheet

A/PROV

ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

Sir:

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53 (b)(2).

INVENTOR(S)/APPLICANT(S)

Last Name	First Name, MI	Residence (City and Either State or Foreign Country)
Nairmark	Michael	
Bergman	Aviv	
Weil	Emily	
Moresco	Ignazio	

TITLE OF THE INVENTION

ALERTING USERS TO WEB SITES OF CURRENT INTEREST AND HANDLING LARGE INCREASES IN USER TRAFFIC

CORRESPONDENCE ADDRESS

Customer No. 21912
RITTER, VAN PELT & YI LLP
4906 El Camino Real, Suite 205
Los Altos, CA 94022

ENCLOSED APPLICATION PARTS (check all that apply)

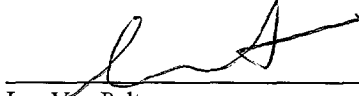
- Specification *Number of Pages 2* Small Entity Statement
- Drawing(s) *Number of Pages 2*
- Power of Attorney
- Additional inventors are being named on separately numbered sheets attached hereto.

METHOD OF PAYMENT

A check in the amount of \$ 150.00 to cover the filing fee is enclosed.

At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account No. 50-0685 (Order No. INT1P206+).

Respectfully submitted,



Lee Van Pelt
Attorney for Applicant(s)
Reg. No. 38352

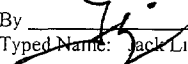
Express Mail Label No. EL422310950US

Date of Deposit January 28, 2000

I hereby certify that this is being deposited with the United States Postal Service 'Express Mail Post Office to Addressee' service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: January 28, 2000

Telephone No.: 650-903-3500

By 
Typed Name: Jack Limper

Small Entity statement.

JCS44 U.S. PTO
01/28/00

JCS44 U.S. PTO
60/178627
01/28/00

01/28/00

Alerting Users to Web Sites of Current Interest and Handling Large Increases in User Traffic

by Inventors

Michael Naimark
Aviv Bergman
Emily Weil
Ignazio Moresco

SUMMARY

Web cameras and web video are undergoing explosive growth, due in part to broader bandwidth, better compression technologies, and cheaper cameras. One can liken the Web to “million channel television.” However, most of the cameras show nothing of interest to most of the watchers most of the time. While dozens of webcam portals and directories exist, none are capable of propagating an alert that “something interesting is happening *now*,” to the right people. To solve this problem, a real time meta-data infrastructure allowing people who see interesting occurrences to alert other interested parties is disclosed. The system is referred to as “Hot Now.” People who receive an alert may further propagate the alert to broader and broader audiences, causing a swarm of users to visit the hot site. A method of preventing server overload when such “mass swarming” occurs is also disclosed, as well as a strategy for caching and archiving the selected video segments. In addition, other examples of “Hot Now” applications in addition to webcams are suggested.

1. Background

1.1. Webcams and Web Video

The first “webcam” appeared in 1991 (actually before the World Wide Web) in the Trojan Coffee Room at the University of Cambridge, for members of the Computer Lab to see how much coffee was left in the coffee pot. By 1996, approximately 100 live web cameras existed. By July 1999, web cameras were being bought worldwide at a rate of over 1,000 per day. Therefore, the current number of webcams may exceed 100,000.

This should come as no surprise to anyone monitoring trends in web and video technology. As modems get faster and broadband technologies such as cable modems and DSL come into use, as video compression allows higher-quality video to be efficiently sent and received, and as camera costs decline, one can easily conclude that web cameras will continue to proliferate. It may appear overly dramatic today to consider the Web as containing “million channel television,” but such claims will likely be realized in the not-too-distant future.

A similar revolution is already in progress in the field of video production. Over the past decade, the means for logging, editing, mixing, and adding special effects to video has quietly moved from expensive post-production facilities to the desktop. For the cost of a day's use of such facilities, home videographers can now own a video camera, computer, and video editing software. What has occurred with word processing and spreadsheets has now occurred with motion picture production.

Given the proliferation of live webcams and tools for video production, the bottleneck now is distribution and access-- finding the content the user is looking for and making sense of the data.

1.2 Liveness, Freshness, and the Shared Viewing Experience

A simple solution to distribution is having web video downloaded by a user requesting a particular selection from a website. This is a good and obvious approach for pre-composed video. But an additional element exists for live and near-live ("fresh") video from webcams, and for pre-composed video webcast to anyone interested: a shared common viewing experience.

In many instances, there is value in such a common experience. For example, gossip about last night's favorite television show around the workplace water cooler, the popularity of live televised sporting events, and the "did-you-see-that?" discussions around rare webcam events. The recent explosion of real time "chat" or "instant messaging" on the Web further suggests a strong desire for live real time shared experiences.

There also is value in near-liveness or "freshness." Consider the difference between seeing a live webcam image of a rhinoceros at an African watering hole as it happens versus finding a stock video of a rhino. Now consider coming home from work and making a Web query "show me 'sightings' that happened today at the African watering hole?" Such "freshness" is close to liveness, and both freshness and liveness have value distinctively different from "canned" video. Freshness value is driven primarily by the cost of caching compared to its demand. It is expected that freshness has a significant positive value for at least 24 hours.

1.3 Web Video Portals, Directories, and Rings

Not far behind the proliferation of webcams and web video is the proliferation of web services to help people find particular topics. These webcam directories or "portals" essentially mimic non-video portals by consisting of hierarchically organized keyword searches (e.g., *finches: birds: animals: general interest*). Keywords are determined for video by humans since computer vision is not currently able to automatically recognize the contents of an arbitrary video image. Today, dozens of such webcam directories exist, some including more than 10,000 entries. Such services are valuable in a limited way. They can help users find the African watering hole, but cannot help users determine when an animal is present.

A variant of webcam portals and directories noteworthy due to their popularity are webcam “rings.” A ring is a group of webcam operators who share a common interest, whether it’s animals, landscapes, or nudes, and offer the service of allowing users to move “around the ring” with controls like “next” and “back.” Though rings are generally open to new members, they have the feel of hobbyists’ networks (indeed, their functionality breaks down if they get too large). While rings suggest an alternative to portals and directories (which one may predict will be short-lived), they also suggest an extraordinary enthusiasm among participants.

1.4 Voting and Polling

Most webcam and web video directories have some method of ranking. These methods range from editorial choices made by the directory operators to voting on the part of the viewers. It’s common to see “top ten” lists, often with voting numbers available, and to see such honors as “webcam of the day.” From our perspective, such determinations are relatively static and cannot help anyone interested in short time based events. Sites which list a webcam of the minute do exist, but there is no special time-based relevance in a selected webcam.

2. Hot Now (“Bitswarm”)

2.1 What It Is

Hot Now is based around a unique meta-data infrastructure that allows people who are first to see an interesting web video event to propagate an alert to others who may find the event interesting, and to do it as fast as the Internet will allow. This concept is also referred to as “bitswarm.” Bitswarm uses active human participation and the power of distributed human intelligence.

In one embodiment, a “Hot Now” virtual pushbutton is present on a user’s web display. When the user sees something they feel is of interest, they press the button. Pressing the Hot Now button sends an alert message to everyone using the infrastructure who has indicated that such alerts are of interest to them (based upon factors described below). Along with the alert message a link to the website of interest is provided, and alerted users can chose to go there. If they also believe the site is currently interesting, they can press their Hot Now button and further propagate the alert.

It is not required that everyone press the Hot Now button when they believe that what they are watching is Hot Now. So long as a proportion of the alerted community acts, propagation will occur. A simple Hot Now button interface encourages more participation.

While the Hot Now infrastructure uses human recognition and human decision-making, it may also be augmented by machine recognition and intelligence. For example, simple

motion detection can be used to send someone to investigate the African watering hole if a motion threshold is exceeded. Further propagation of the alert depends on humans deciding whether or not to press the Hot Now button.

2.2 Propagation Rather than Polling

The disclosed method of propagation is superior to polling. Polling is one-shot and generally static, while propagation is multi-step and dynamic. Propagation builds on what already exists, from a single alert which may alert 100 people who may then each alert another 100 people, and so on. As more people propagate an alert, more people are alerted. As such, propagation can produce exponential changes occurring in short periods of time, classic positive feedback behavior.

It is equally important to understand that propagation can have a negative value as well as a positive one. By *not* pressing the Hot Now button, an alert will *decrease* in strength due to decay. Propagation both positively propagates something interesting and negatively propagates (filters) something that is not interesting or is no longer interesting. Such propagation is therefore a closed-loop self regulating system.

In some embodiments, a “not Hot Now” button is also provided. Also, a scaled Hot Now button, e.g., from -10 to +10, further amplifying the alert may be provided. In general, a tradeoff exists between complexity and motivation, and user behavior is kept as simple as practical.

2.3 Factors and Specifications

2.3.1 Hot Now Input

The Hot Now interface consists of an alert button and a text field. The alert button and text field can be integrated directly into the content of a web page, much like a banner ad, or incorporated into a small floating browser window.

When an alert is triggered, two values are transmitted to the server: the URL being watched and the alerter ID. A user can also opt to send a text comment.

Each client application may monitor the frequency of alerts. Abusers of its functionality can have their alert access restricted; productive users can have their alert access increased.

2.3.2 Hot Now Propagation

A user receives an alert if she is interested in a) the alerter’s interest or b) the URL’s content category. Interest may be expressed by setting filter variables. The filtering interface is described below.

Interest groups and URL categories are hierarchical. For example, the “Bird Watching” interest group is a subset of the “Animal Lovers” group. When enough “Bird Watching” members trigger a Hot Now, the alert passes up the hierarchy to members of the “Animal Lovers” group.

As more members trigger the Hot Now, the system can detect overlapping of clicker interests. For example, when a sports enthusiast/animal lover and a sports enthusiast/news buff both hit the Hot Now for the same URL, the system primarily alerts sports enthusiasts.

2.3.3 Settings For Filtering Output

Users control the influx of alert calls by selecting the following:

- **Interest Group Bias:** increases a client’s sensitivity to alerts triggered by members of specific interest groups (e.g., birds, animals, weather, natural disasters, car crashes, sex).
- **Clicker Biases:** heightens sensitivity to alerts from specific members of the community (e.g., registered club members, democrats, women).
- **URL Biases:** favors alerts associated with particular URLs or URL categories (cameras located in South America, cameras set up by National Geographic).
- **Heat Threshold** has two components: “heat sensitivity” determines the number of alerts required to announce an event to the user; “cooling” determines the duration after which an event will no longer be announced to the user.

The "heat sensitivity" variable lets a user favor particular stages of a "Hot Now" event. At one extreme, “heat sensitivity” senses URLs that have received only a single alert. At the other extreme, “heat sensitivity” senses only the hottest URLs, i.e. URLs that have received many alerts. This setting can be thought of as ranging from “I’m so interested in this that I want to be alerted first (even if I have to deal with false alarms)” to “don’t bother me unless many people already find this hot.”

The "cooling" variable is used to calculate relative heat of URLs. The variable is segmented into intervals of time. An alert during the most recent “cooling” interval has a greater heat value than an alert during the least recent interval.

- **Hot Now display:** controls the number of URLs displayed.
- **Comment Flag:** controls the display of user comments accompanying alerts.

Other filters are set automatically:

- After a user visits a hot site, she or he temporarily becomes less sensitive to alerts from that site.
- An event’s first alert is “hotter” than subsequent alerts to the same event.

Either the server or the client can filter alerts. In one embodiment, the server updates each user's settings in a database of user profiles and transmits a pre-customized Hot Now list to the client. In another embodiment, the client customizes raw data received from the server; and settings are updated on the client and saved to the server at the end of each session.

2.3.4 Hot Now Output Display

Alerts can be displayed, depending on bandwidth, in the following formats:

- Lists of URLs
- Thumbnails of a web page
- A single URL's "heat" display
- Animations
- Other visualizations

It is also possible for an alert to trigger external devices using different modalities than a standard computer, such as a pager, telephone, or lights flashing.

2.3.5 An Example Hot Now Architecture Specification

In one embodiment, URL and alerter interest groups are the same, based on a standard list of topics (which may or may not be hierarchical). Each user selects a series of interest groups and sets a sensitivity threshold for each selected group.

Preferably, interest group filtering is implemented on the server and sensitivity filtering is implemented on the client.

Alert Messages Sent To the Server

Data: [URL, AlerterID, Comment]

The comment variable is optional and may either be an open text field or a pull down window with pre-assigned comments such as topics.

Alert Message Sent from the Server to Users

Data: [List of Inferred Interest Groups, URL, Comment]

Each alert is propagated to members of a hot event's inferred interest groups. The inferred interest groups include members of the URL's interest group and overlapping alerter interest groups.

The Inferred Interest Group Process

If there is no overlap of interest groups, the server sends alert messages to all members of each alerter's interest group. If there is overlap, the server sends alert messages to those within the intersection of interest groups.

Repeat for every alert

If a region of interest overlap is not reaffirmed by an incoming alert, it loses importance. Overlapping regions may shift over time.

Server Processing

For each alert received, the server performs the following:

- Looks up the alerter's UserID for her Interest group selections
- Looks up URL Interest groupings
- Performs inferred interest group algorithm
- Searches for UserID's in inferred interest groups and transmits a message

Sensitivity Filtering on the Client

A user's sensitivity selections are saved on the client in the following table:

[Interest Group, Sensitivity Threshold, Timespan]

Timespan is the length of time during which a URL's alerts are counted. A URL is displayed if its sum of alerts reaches its threshold before its timespan has expired. At the end of each timespan, the URL's count is set to zero. Timespan is initially a default value that can be reset by the user.

A dynamic table keeps track of the count for each hot URL:

[URL, Interest Groups List, Counter Time List [T1, T2, T3...]]

A URL is displayed once its lowest interest group threshold is reached.

Credible Alerters

The system can recognize a first alerter and can keep track of responses to her initial alert. An alerter gains credibility when her alert attracts many responses. A credible alerter's alert is propagated with greater magnitude than a non-credible alerter. A credible alerter's alert is sent more than once to all her interest groups (regardless of inferred interest groupings).

The credit system creates leaders. Leaders create other leaders. A credible alerter might respond to the call of a non-credible first alerter. If she sends a credible alert, enough users will probably respond so that the first alerter will become credible.

Credibility within the community shifts and decays over time.

3. Overload Protection (“Bitsurge”)

The Hot Now meta-data infrastructure may potentially crash webcam servers at the moment when the most interesting video is occurring, due to massive herding/flocking/swarming by alerted users. To solve this problem, an overload protection service referred to as “Bitsurge” is implemented.

Bitsurge monitors alerted servers for overload. If an overload is imminent, the overloading web page is copied to a larger Bitsurge server and traffic is automatically rerouted to the Bitsurge server in a manner that is transparent to alerted users. The Bitsurge server becomes the invisible intermediary.

When a web producer registers her site into the Hot Now network, she downloads a Bitsurge application and installs it onto her server. As users flock to her site, Bitsurge sends the site’s data to the Hot Now server. Each client request for the site is then redirected from the original server to the Hot Now server.

Bitsurge caching persists during the span of a Hot Now event. By keeping track of alert frequency for each site, the Hot Now system can detect a site’s Hot Now event before the site’s original server is overloaded. As soon as a site receives many alerts, the system assumes that a flock is on its way.

Alternatively, a Hot Now event can be determined beyond the Hot Now network, by a hit counter running on the site’s server. When a site is hit by many users, the Bitsurge application detects that a Hot Now event is occurring – and redirects data to the Hot Now server.

Bitsurge has applications independent of a Hot Now alert. Any server that may experience overload may benefit from such a service, particularly when the overload is occasional or unpredictable.

4. Caching and Archiving

As mentioned earlier, near-live or fresh content has value similar (and in some cases greater) than live alerts. For people to see what *was* hot *that* day (or some other short period of time), real time caching of Hot Now alerts is used.

What to cache and when to cache alerted videos is partly market-driven and partly context-driven. Alerted events that are known to have short durations (e.g., celebrity

Hot Now Alerts

sightings in public places) require recording to begin almost as soon as the first alert occurs, while events that have longer durations have looser constraints (e.g., if a rhino stays an average of 10 minutes at the watering hole).

Caching for freshness is, by definition, temporary. If the goal is to provide a commercial service, at some point the value of the material drops below the cost of caching it, as its freshness turns “stale.” Hence, a fresh cache may be regularly flushed.

A symbiotic relationship exists between cache flushing and archiving. The goal of archiving is to save “the best” from a sample far too large to archive in its entirety, and flushing the cached material to an archive on a regular basis benefits all parties. The webcam operator may have a minute of his or her material found through the Hot Now alert infrastructure, made available while its fresh (for fame or fortune), and then made part of the permanent collection of an archive. The Hot Now system benefits by finding and caching what’s Hot Now. And the archive gets the best of the best, as determined by a “people’s choice.”

5. Other Applications

The Hot Now “bitswarm” system, as well as the “Bitsurge” overload protection, has applications beyond webcams and web video. It has value for any networked phenomena that changes quickly.

One class of applications also involve the Web. For example, the system may be used to provide an alert when someone finds anything on the Web that is timely and worthy of alerting others who have expressed interest, such as auctions.

Another class of applications are non-Web networks. For example, a broadband television environment with several hundred channels and a simple Hot Now infrastructure may be used to help users select channels. For example, a Hot Now button on a remote control with 4 categories to select (e.g. nudity, funny moments, news flashes, and sports climaxes) and only 1 hierarchical level (top level is general interest) may be implemented. Hot Now alerts are propagated when the Hot Now button on the remote is activated during a program. Given how many people already are “channel surfers,” the value of such a system is clear.

Figure 1: Hot Now Application Client/Server Diagram

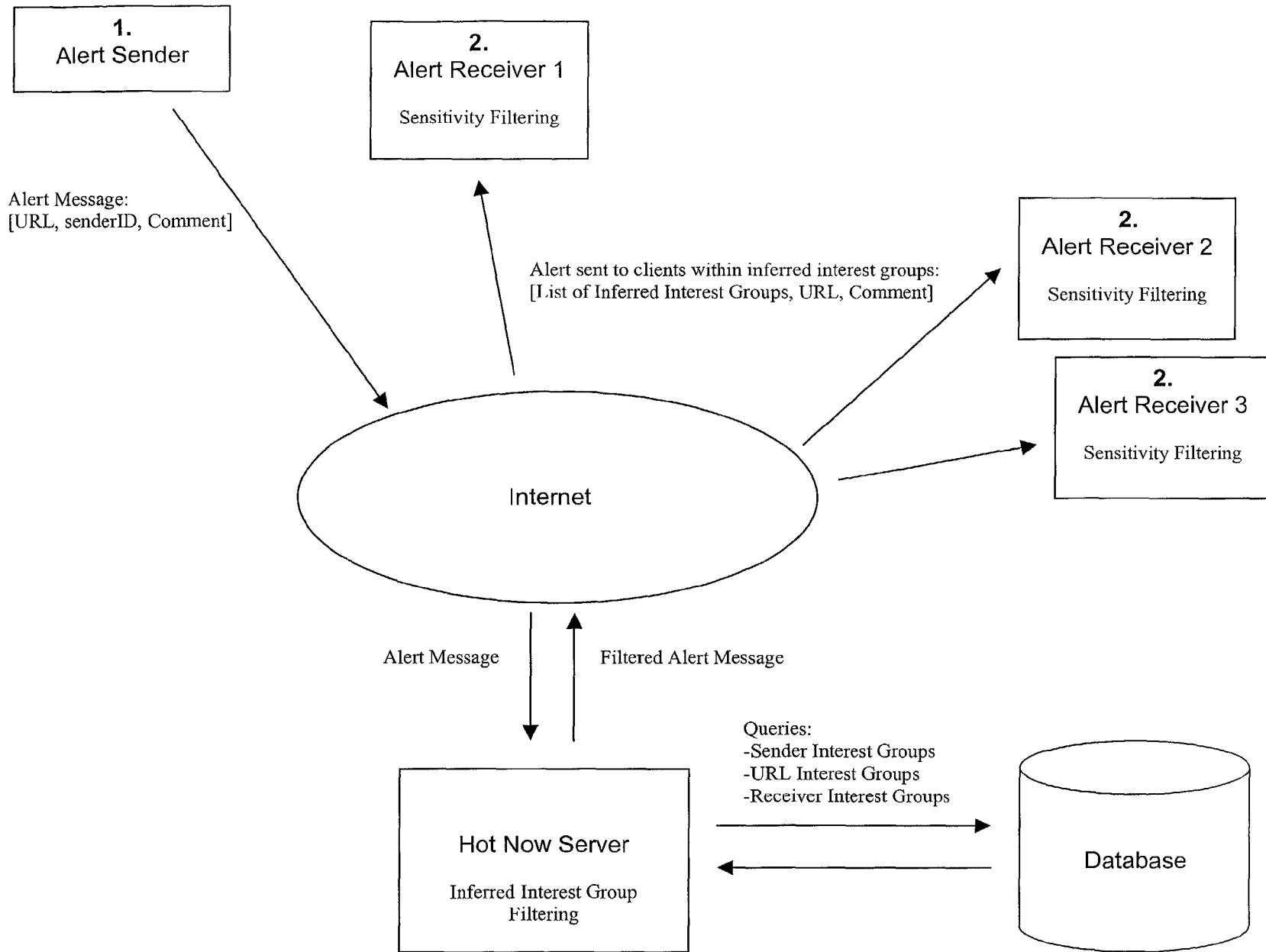


Figure 2. Hot Now Application Server Side Flow Chart – BitSurge Protection

