Personalized User Model LLP v. Google Inc. Doc. 118 Att. 1

EXHIBIT C
Part 1

Dockets.Justia.com

OIPE
OCT 03 2005
PATENT & TRADEMARK OFFICE

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)

30869 7590 09/22/2005

LUMEN INTELLECTUAL PROPERTY SERVICES, INC.
2345 YALE STREET, 2ND FLOOR
PALO ALTO, CA 94306

10/05/2005 TBESHAH2 00000156 09597975

01 FC:2501 700.00 OP
02 FC:8001 9.00 OP

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.

SYLVIA LEE (Depositor's name)
(Signature)
9/29/05 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,975	06/20/2000	Yochai Konig	UTO-101	9014

TITLE OF INVENTION: AUTOMATIC, PERSONALIZED ONLINE INFORMATION AND PRODUCT SERVICES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$0	$700	12/22/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
BAROT, BHARAT	2155	709-224000

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,
(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.

1 Lumen Intellectual Property Services, Inc.
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: Utopy, Inc.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): San Francisco, CA

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 enclosed:
☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies 3

4b. Payment of Fee(s):
☐ A check in the amount of the fee(s) is enclosed.
☒ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), 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).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
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 9/29/05

Typed or printed name Ron Jacobs Registration No. 50,142

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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OIPE IAP69 OCT 03 2005 PATENT & TRADEMARK OFFICE

PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	09/597,975
Filing Date	6/20/2000
First Named Inventor	Yochai Konig
Art Unit	2155
Examiner Name	Bharat Barot
Attorney Docket Number	UTO-101/US

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
- [x] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please Identify below):

  Issue Fee

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Lumen Intellectual Property Services, Inc.		
Signature			
Printed name	Ron Jacobs		
Date	9/29/05	Reg. No.	50,142

CERTIFICATE OF TRANSMISSION/MAILING

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

Signature			
Typed or printed name	SYLVIA LEE	Date	9/29/05

This collection of information is required by 37 CFR 1.5. 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 1.11 and1.14. This collection is estimated to 2 hours 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, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

30869 7590 09/22/2005

LUMEN INTELLECTUAL PROPERTY SERVICES, INC.
2345 YALE STREET, 2ND FLOOR
PALO ALTO, CA 94306

EXAMINER	
BAROT, BHARAT	
ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 09/22/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,975	06/20/2000	Yochai Konig	UTO-101	9014

TITLE OF INVENTION: AUTOMATIC, PERSONALIZED ONLINE INFORMATION AND PRODUCT SERVICES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$0	$700	12/22/2005

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 REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

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 should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. 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.

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.

PTOL-85 (Rev. 07/05) Approved for use through 04/30/2007.

PUM 0067558

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
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or Fax **(571) 273-2885**

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

30869 7590 09/22/2005

LUMEN INTELLECTUAL PROPERTY SERVICES, INC.
2345 YALE STREET, 2ND FLOOR
PALO ALTO, CA 94306

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.
09/597,975	06/20/2000	Yochai Konig	UTO-101	9014

TITLE OF INVENTION: AUTOMATIC, PERSONALIZED ONLINE INFORMATION AND PRODUCT SERVICES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$0	$700	12/22/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
BAROT, BHARAT	2155	709-224000

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,

(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.

1 _____

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 enclosed:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

☐ A check in the amount of the fee(s) is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized by charge the required fee(s), 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).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
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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PUM 0067559

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,975	06/20/2000	Yochai Konig	UTO-101	9014

30869 7590 09/22/2005

LUMEN INTELLECTUAL PROPERTY SERVICES, INC.
2345 YALE STREET, 2ND FLOOR
PALO ALTO, CA 94306

EXAMINER	
BAROT, BHARAT	
ART UNIT	**PAPER NUMBER**
2155	

DATE MAILED: 09/22/2005

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 717 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 717 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 (703) 305-8283.

PTOL-85 (Rev. 07/05) Approved for use through 04/30/2007.

PUM 0067560

Notice of Allowability	Application No.	Applicant(s)	
	09/597,975	KONIG ET AL.	
	Examiner	Art Unit	
	Bharat N. Barot	2155	

-- 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 *amendment filed on 08/08/2005*.

2. ☒ The allowed claim(s) is/are *1-62*.

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)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Bharat Barot

BHARAT BAROT
PRIMARY EXAMINER

(571) 272-3979

Notice of References Cited	Application/Control No. 09/597,975	Applicant(s)/Patent Under Reexamination KONIG ET AL.	
	Examiner Bharat N. Barot	Art Unit 2155	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,732,090 B2	05-2004	Shanahan et al.	715/500
*	B	US-6,567,850 B1	05-2003	Freishtat et al.	709/224
*	C	US-6,564,170 B2	05-2003	Halabieh, Abdul	709/224
*	D	US-5,964,839 A	10-1999	Johnson et al.	709/224
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

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

NON-PATENT DOCUMENTS

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

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

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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Bib Data Sheet

CONFIRMATION NO. 9014

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/597,975	06/20/2000 RULE	709	2155	UTO-101

APPLICANTS

Yochai Konig, San Francisco, CA;

Roy Twersky, San Francisco, CA;
Michael R. Berthold, Berkeley, CA;

** CONTINUING DATA ********** Yes B/B
This appln claims benefit of 60/173,392 12/28/1999

** FOREIGN APPLICATIONS ********** No B/B

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
** 08/10/2000

Foreign Priority claimed ☐ yes ☑ no 35 USC 119 (a-d) conditions met ☐ yes ☑ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature Initials	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
	CA	19	62	2

ADDRESS
30869
LUMEN INTELLECTUAL PROPERTY SERVICES, INC.
2345 YALE STREET, 2ND FLOOR
PALO ALTO , CA
94306

TITLE
Automatic, personalized online information and product services

FILING FEE		
RECEIVED 723	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

Issue Classification	Application/Control No.	Applicant(s)/Patent under Reexamination	
	09/597,975	KONIG ET AL.	
	Examiner	Art Unit	
	Bharat N. Barot	2155	

ISSUE CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)							
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)						
709	224	709	223	228					
INTERNATIONAL CLASSIFICATION		715	736						
G 0 6 F	15/173								
	/								
	/								
	/								
	/								

(Assistant Examiner) (Date)

Lavinia Johnson 9-16-05
(Legal Instruments Examiner) (Date)

Bharat Barot.
BHARAT BAROT
PRIMARY EXAMINER
(Primary Examiner) 08/30/2005 (Date)

Total Claims Allowed: 62

O.G. Print Claim(s)	O.G. Print Fig.
1	2

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		31		61		91		121		151		181
	2		32		62		92		122		152		182
	3		33		63		93		123		153		183
	4		34		64		94		124		154		184
	5		35		65		95		125		155		185
	6		36		66		96		126		156		186
	7		37		67		97		127		157		187
	8		38		68		98		128		158		188
	9		39		69		99		129		159		189
	10		40		70		100		130		160		190
	11		41		71		101		131		161		191
	12		42		72		102		132		162		192
	13		43		73		103		133		163		193
	14		44		74		104		134		164		194
	15		45		75		105		135		165		195
	16		46		76		106		136		166		196
	17		47		77		107		137		167		197
	18		48		78		108		138		168		198
	19		49		79		109		139		169		199
	20		50		80		110		140		170		200
	21		51		81		111		141		171		201
	22		52		82		112		142		172		202
	23		53		83		113		143		173		203
	24		54		84		114		144		174		204
	25		55		85		115		145		175		205
	26		56		86		116		146		176		206
	27		57		87		117		147		177		207
	28		58		88		118		148		178		208
	29		59		89		119		149		179		209
	30		60		90		120		150		180		210

Index of Claims

Application/Control No.	Applicant(s)/Patent under Reexamination
09/597,975	KONIG ET AL.
Examiner	**Art Unit**
Bharat N. Barot	2155

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

Claim		Date		Claim		Date		Claim		Date	
Final	Original	6/29/05	8/30/05	Final	Original	6/29/05	8/30/05	Final	Original		
1	(1)	√	=	51	51	√	=		101		
2	2	|	|	52	52	O	|		102		
3	3	|	|	53	53	√	|		103		
4	4	|	|	54	54	√	|		104		
5	5	|	|	55	55	√	|		105		
6	6	|	|	56	56	O	|		106		
7	7	|	|	57	57	O	|		107		
8	8	|	|	58	58	√	|		108		
9	9	|	|	59	59	|	|		109		
10	10	|	|	60	60	|	|		110		
11	11	|	|	61	61	|	|		111		
12	12	|	|	62	62	√	=		112		
13	13	|	|		63				113		
14	14	|	|		64				114		
15	15	|	|		65				115		
16	16	|	|		66				116		
17	17	|	|		67				117		
18	18	√	|		68				118		
19	19	O	|		69				119		
20	20	√	|		70				120		
21	21	O	|		71				121		
22	22	√	|		72				122		
23	23	√	|		73				123		
24	24	√	|		74				124		
25	25	O	|		75				125		
26	26	O	|		76				126		
27	27	√	|		77				127		
28	28	|	|		78				128		
29	29	|	|		79				129		
30	30	|	|		80				130		
31	31	|	|		81				131		
32	(32)	|	|		82				132		
33	33	|	|		83				133		
34	34	|	|		84				134		
35	35	|	|		85				135		
36	36	|	|		86				136		
37	37	|	|		87				137		
38	38	|	|		88				138		
39	39	|	|		89				139		
40	40	|	|		90				140		
41	41	|	|		91				141		
42	42	|	|		92				142		
43	43	|	|		93				143		
44	44	|	|		94				144		
45	45	|	|		95				145		
46	46	|	|		96				146		
47	47	|	|		97				147		
48	48	|	|		98				148		
49	49	√	|		99				149		
50	50	O	=		100				150		

Search Notes

Application/Control No.	Applicant(s)/Patent under Reexamination	
09/597,975	KONIG ET AL.	
Examiner	**Art Unit**	
Bharat N. Barot	2155	

SEARCHED			
Class	Subclass	Date	Examiner
709	200 201-203 223-225 27-228	8/30/2005	BB
707	1-3 7-10		
707	101		
715	500 736		
715	513-514		

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
709	**223, 224**	**8/30/2005**	**BB**
709	228		
715	736		

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
WEST Search	8/30/2005	BB

OIPE JC64
SEP 07 2004
PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/597,975 | Docket No.: UTO-101

Filing Date: 06/20/2000 | Art Unit: 2157

Applicants: Konig *et al.* | Examiner: Barbara N. Burgess

Title: Automatic, Personalized Online Information and Product Services

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner of Patents, Alexandria, VA 22313-1450

on 9/1/04 (Date) _____ (Signature)

SYLVIA LEE
Type or print name of person signing

Reply under 37 CFR 1.111

OK To Enter BB

RECEIVED
SEP 14 2004
Technology Center 2100

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

Sir:

In reply to the Final Office Action mailed by the USPTO on June 4th, 2004, the Applicants respectfully submit the following remarks.

side by side			**result set**
DB=USPT; PLUR=YES; OP=ADJ			
L14	L7 and l4	0	L14
L13	L7 and l2	0	L13
L12	L7 and l1	4	L12
L11	L7 and (l1 or l2 or l4)	4	L11
L10	L7 same l4	0	L10
L9	L7 same l2	0	L9
L8	L7 same l1	0	L8
L7	estimat$ with probability with document	47	L7
L6	L4 same l2	0	L6
L5	L4 same l1	1	L5
L4	updat$ with user with specific with data	215	L4
L3	L2 same l1	7	L3
L2	monitor$ with user with interaction	728	L2
L1	personal$ same information same service same user	3548	L1

END OF SEARCH HISTORY

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 2003

09/597,975

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS		
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	minus 20=	*
INDEPENDENT CLAIMS	minus 3 =	*
MULTIPLE DEPENDENT CLAIM PRESENT		☐

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

SMALL ENTITY TYPE ☐		OR	OTHER THAN SMALL ENTITY	
RATE	FEE		RATE	FEE
BASIC FEE	385.00	OR	BASIC FEE	770.00
X$ 9=		OR	X$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL		OR	TOTAL	

CLAIMS AS AMENDED - PART II

AMENDMENT A

9-7-04	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	* 62	Minus	** 62	=
Independent	* 2	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT B

12-29-04	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	* 62	Minus	** 62	=
Ind pendent	* 2	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C

8-8-05	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	* 62	Minus	** 62	=
Independent	* 2	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

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

BEST AVAILABLE COPY

PATENT APPLICATION FEE DETERMINATION RECORD
Effective December 29, 1999

Application or Docket Number: 09/897,925

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)	SMALL ENTITY TYPE ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE	FEE		RATE	FEE
BASIC FEE				345.00	OR		690.00
TOTAL CLAIMS	62 minus 20=	* 42	X$ 9=	378	OR	X$18=	
INDEPENDENT CLAIMS	2 minus 3 =	*	X39=		OR	X78=	
MULTIPLE DEPENDENT CLAIM PRESENT			+130=		OR	+260=	
			TOTAL	723	OR	TOTAL	

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

CLAIMS AS AMENDED - PART II

AMENDMENT A — 9-8-03

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	* 62	Minus	** 62	=
Independent	* 2	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY RATE	ADDITIONAL FEE	OR	OTHER THAN SMALL ENTITY RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT B — 12-16-03

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	* 62	Minus	** 62	=
Independent	* 2	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C — 3-8-04

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
Total	* 62	Minus	** 62	=
Independent	* 2	Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X$ 9=		OR	X$18=	
X39=		OR	X78=	
+130=		OR	+260=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

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

2157

AUG 0 8 2005

PATENT & TRADEMARK

PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/597,975
Filing Date	6/20/2000
First Named Inventor	Konig et al.
Art Unit	2157
Examiner Name	Bharat Barot
Attorney Docket Number	UTO-101/US

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☑ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please Identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Lumen Intellectual Property Services, Inc.		
Signature			
Printed name	Ron Jacobs		
Date	8/4/05	Reg. No.	50,142

CERTIFICATE OF TRANSMISSION/MAILING

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

Signature			
Typed or printed name	SYLVIA LEE	Date	8/4/05

This collection of information is required by 37 CFR 1.5. 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 1.11 and1.14. This collection is estimated to 2 hours 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, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

OIPE JC181
AUG 0 8 2005
PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/597,975 Docket No.: UTO-101

Filing Date: 06/20/2000 Art Unit: 2157

Applicants: Konig *et al.* Examiner: Bharat Barot

Title: Automatic, Personalized Online Information and Product Services

CERTIFICATE OF MAILING

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on 8/4/05 (Date) Sylvia (Signature)

SYLVIA LEE

Type or print name of person signing

Reply under 37 CFR 1.111

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

Sir:

In reply to the Non-Final Office Action mailed by the USPTO on July 8th, 2005, the Applicant respectfully submits the following remarks.

REMARKS

Phone Interview

A phone interview took place on the August 3rd 2005 between Examiner Bharat Barot and undersigned Ron Jacobs discussing *Gerace* (U.S. Patent No. 5,991,735) in light of the independent claims 1 and 32. A conclusion was reached that *Gerace* is different from the independent claims 1 and 32 and is in fact not anticipating, teaching or suggesting the combination of elements in independent claims 1 and 32. Specifically, *Gerace* does not teach or suggest the combination of elements as listed in independent claims 1 and 32:

- estimating parameters of a learning machine, wherein the parameters define a User Model specific to the user and wherein the parameters are estimated in part from the user-specific data files (*independent claim elements 1(c) and 32(c)*)
- analyzing a document *d* to identify properties of the document (*independent claim elements 1(d) and 32(d)*)
- estimating a probability *P(u|d)* that an unseen document *d* is of interest to the user *u*, wherein the probability *P(u|d)* is estimated by applying the identified properties of the document to the learning machine having the parameters defined by the User Model (*independent claim elements 1(e) and 32(e)*) and
- using the estimated probability to provide automatic, personalized information services to the user (*independent claim elements 1(f) and 32(f)*).

Claims Rejections, 35 USC Paragraph 102(e)

Claims 1-15, 20, 22, 22-24, 27-46, 51, 53-55 and 58-62 were rejected under U.S.C. 102(e) as being anticipated by *Gerace* (U.S. Patent No. 5,991,735).

In reply, the Applicant respectfully disagrees.

Gerace teaches:

(*Abstract*) "Based on regression analysis of **recorded responses of a first set of users** viewing the advertisements, the target user profile is refined." [underline and bold by Applicant]

(*Column 2, lines 19-20*) "...a **history** and/or pattern of user activity which in turn is interpreted as a user's habit and /or preferences." [underline and bold by Applicant]

(*Column 2, line 45*) "that records **history of users** viewing the advertisements." [underline and bold by Applicant]

(*Column 2, lines 50-53*) "... performs a regression analysis on the **recorded history of users** viewing the ads. The subroutine refines profiles of target users based on the regression analysis." [underline and bold by Applicant]

(*Claim 8*) "... **records history of users** viewing the advertisements ...". [underline and bold by Applicant]

(*Claim 9*) "... regression analysis on the **history of users** viewing the advertisements ...". [underline and bold by Applicant]

As a person of average skill in the art readily appreciates, in particular reading the above referenced sections, *Gerace* uses memorization to determine a profile of a user. *Gerace* does not teach nor suggest generalization beyond the recorded history or memorized information. Furthermore, *Gerace's* user interest is defined in a fixed set of categories

(also referred to as agate information, e.g. *sports*) and does not extend beyond the fixed set of categories (e.g. *stocks* instead of *sports*). *Gerace's* teaching is concerned with finding similar user(s), among the existing set of users with a fixed set of categories. By having a set of users that clicked or viewed an Ad that was served to them *Gerace* finds similar users (i.e. user(s) that like similar categories within the fixed set of categories) to serve them that Ad. If the AD or document belongs to a category X that is not listed or not part of the set of existing users, then *Gerace's* system has to present this Ad or unseen document to a random set of users until sufficient statistics about the users that like this has emerged. In other words, it is not taught nor is it suggested how the first set of users or the first user are/is presented with an unseen document or an unseen Ad. *Gerace* has no answer to that problem!

Accordingly, it is noted that *Gerace does not* and *can not* estimate posterior probability P(u|d) that an unseen document is of interest to a user (See *independent claim elements 1(e) and 32(e))*.

Estimating the posterior probability P(u|d) that an unseen document is of interest to a user (See *independent claim elements 1(e) and 32(e))* is just one of the elements of the claimed invention of the present application. In that light, it is noted that the way the claimed invention establishes the posterior probability P(u|d) of an unseen document is not taught nor suggested by the prior art of record. More specifically, the prior art of record does not teach or suggest a learning machine assisting in estimating P(u|d) that an unseen document is of interest to user *d* (*independent claim elements 1(e) and 32(e))*.

PUM 0067575

Furthermore, the prior art of record does not teach or suggest the step of estimating parameters of that learning machine and further assisting in estimating P(u|d) that an unseen document is of interest to user *d*. (*independent claim elements 1(c) and 32(c)).*

In summary, the Applicant submits that claims 1-15, 20, 22, 22-24, 27-46, 51, 53-55 and 58-62 are not anticipated and not suggested by *Gerace*. It is kindly requested that the claimed invention is interpreted as the combination of elements listed in each independent claim, i.e., 1(a)-1(f) and 32(a)-32(f). Accordingly, allowance of claims 1-15, 20, 22, 22-24, 27-46, 51, 53-55 and 58-62 is kindly requested.

Claims Rejections, 35 USC Paragraph 103

Claims 16-18, 47-49 were rejected under U.S.C. 103 as being unpatentable over *Gerace* (U.S. Patent No. 5,991,735).

In reply, the Applicant respectfully disagrees for the above mentioned reasons and arguments. The Applicant submits that claims 16-18, 47-49 are not suggested by *Gerace*. Accordingly, allowance of claims 16-18, 47-49 is kindly requested.

Claims Objections (Allowable Subject Matter)

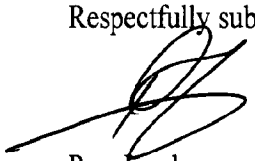
Claims 19, 21, 25-26, 50, 52 and 56-57 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In reply, the Applicant appreciates and thanks the Examiner for indicating allowable subject matter.

CONCLUSION

The Applicant submits that claims 1-62 are novel and unobvious over *Gerace*. In general, the Applicant submits that claims 1-62 are novel and unobvious over the prior art of record. In that light, the Applicant incorporates in this reply all previously made arguments and remarks addressing the prior art of record. Accordingly, allowance of the claims now in the application is kindly requested.

Respectfully submitted,



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Palo Alto, CA 94306-1429

Phone: (650) 424-0100
Fax: (650) 424-0141
Email: ron@lumen.com

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,975	06/20/2000	Yochai Konig	UTO-101	9014

30869 7590 07/08/2005

LUMEN INTELLECTUAL PROPERTY SERVICES, INC.
2345 YALE STREET, 2ND FLOOR
PALO ALTO, CA 94306

EXAMINER	
BAROT, BHARAT	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 07/08/2005

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

Office Action Summary	Application No.	Applicant(s)	
	09/597,975	KONIG ET AL.	
	Examiner	Art Unit	
	Bharat N. Barot	2155	

-- 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 *28 December 2004*.

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

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

Disposition of Claims

4)☒ Claim(s) *1-62* 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) *1-18,20,22-24,27-49,51,53-55 and 58-62* is/are rejected.

7)☒ Claim(s) *19,21,25,26,50,52,56 and 57* 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) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/28/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

RESPONSE TO AMENDMENT

1. This office action is responsive to the amendments and arguments filed on December 28, 2004. Claims 1-62 represent a system and program for Automatic, Personalized Online Information and Product Services. Claims 1-62 remain for further examination.

The new grounds of rejection

2. Applicants' amendments and arguments with respect to claims 1-62 filed on December 28, 2004 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

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

A person shall be entitled to a patent unless –

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

4. Claims 1-15, 20, 22-24, 27-46, 51, 53-55, and 58-62 are rejected under 35 U.S.C. 102(e) as being anticipated by Gerace (U.S Patent No. 5,991,735).

Gerace's patent meets all the limitations for claims 1-15, 20, 22-24, 27-46, 51, 53-55, and 58-62 recited in the claimed invention.

Gerace teaches the invention as claimed including a method, system and program for targeting audience based on psychographic or demographic profile using regression analysis and continually updating profile of users (see abstract; col. 2).

As to claim 1, Gerace teaches a computer-implemented method for providing automatic personalized information services to a user u, the method comprising:

a) transparently monitoring user interactions with data while the user is engaged in normal use of a computer (see figs. 1-2; col. 4, lines 39-56, Gerace discloses that program 31 records user's interaction with the web site);

b) updating user-specific data files, wherein the user-specific data files comprise the monitored user interactions with the data and a set of documents associated with the user (see fig. 3a; col. 6, lines 22-67; col. 7, lines 1-55, Gerace discloses that program 79 continuously updates profiling member 73 which includes user object/file 37 that records many aspects of user psychographic, demographic, preference, and viewed or traversed agate/documents information on the web);

c) estimating parameters of a learning machine (program controller 79 in concert with agate data assembly 71, user profiling member 73 and AD module 75 all possibly running on web server 27 fig. 2), wherein the parameters define a User Model specific to the user and wherein the parameters are estimated in part from the user-specific data files (see figs. 1-3; col. 5, lines 10-15, Gerace discloses that program controller 79 responds to commands from an end user browsing a document after login and gets the necessary information or parameters from agate data assembly 71, user profiling member 73 and AD module 75 to provide appropriate agate info/documents and screen views);

d) analyzing a document d to identify properties of the document (see figs. 5a-d; col. 12, lines 30-65, Gerace discloses that regression analysis is continuously performed on agate data/documents/ad files viewed);

e) estimating a probability P(u6d) that the an unseen document d is of interest to the user u, wherein the probability P(u/d) is estimated by applying the identified properties of the document to the learning machine (program controller 79) having the parameters defined by the User Model (profiling member 71/user objects 37); and

f) using the estimated probability to provide automatic, personalized information services to the user (see figs. 1-3; col. 5, lines 10-15; col. 6, lines 14-40; col. 15, lines 5-67; col. 16, lines 1-20, Gerace discloses that agate data/documents are ranked using a statistical probabilistic factor (please refer to col. 15) and that program controller 79 responds to commands from an end user browsing a document after login and gets the necessary information or parameters from agate data assembly 71, user profiling member 73 and AD module 75 to provide appropriate agate info/documents and screen views).

As to claim 2, Gerace teaches the method of claim 1 wherein the user-specific data files include documents of interest to the user u and documents that are not of interest to the user u, and wherein estimating the parameters comprises distinct treatment of the documents of interest and the documents that are not of interest (see figs. 1-5; col. 5, lines 10-67; col. 7, lines 15-60; col. 15, lines 5-67, Gerace discloses that regression analysis is continuously performed to identify agate information/documents that are of interest or not of interest (ranking factor col. 15)).

As to claim 3, Gerace teaches the method of claim 1 wherein analyzing the document provides for the analysis of documents having multiple distinct media types (see col. 1, lines 10-67; col. 2, lines 10-67, Gerace discloses that agate information could represent documents presented all formats offered by the web/Internet).

As to claim 4, Gerace teaches the method of claim 1 wherein transparently monitoring user interactions with data comprises monitoring multiple distinct modes of user interaction with network data (see col. 7, lines 64-67; col. 8, lines 1-67; col. 11, lines 45-65, Gerace discloses that the user's interaction is record based on the mode of interactivity).

As to claim 5, Gerace teaches the method of claim 4 wherein the multiple distinct modes of user interaction comprise a mode selected from the group consisting of a network searching mode, a network navigation mode, a network browsing mode, an email reading mode, an email writing mode, a document writing mode, a viewing "pushed" information mode, a finding expert advice mode, and a product purchasing mode (see col. 1, lines 15-67; col. 2, lines 24-50; col. 7, lines 5-10; lines 30-50; col. 9-11, Gerace discloses that user interactions are recorded for many modes of web interactions).

As to claim 6, Gerace teaches the method of claim 1 further comprising crawling network documents, wherein the crawling comprises parsing crawled documents for lirlks, calculating probable user interest in the parsed links using the learning machine, and preferentially following links likely to be of interest to the user (see col. 2, lines 40-50; col. 4, lines 25-50; col. 11, lines 45-65; col. 15, lines 15-67; col. 17, lines 35-40, Gerace discloses that links of a document presented for a user are traversed and interactions recorded).

As to claim 7, Gerace teaches the method of claim 1 wherein the identified properties of the document comprise a user u-independent property selected from the group consisting of: a) a probability P(t,d) that the document d is of interest to users interested in a topic t; b) a topic classifier discrete probability distribution P(t/d); c) a product model discrete probability distribution (p/d); d) product feature values extracted from the document d; e) an author of the document d; f) an age of the document d; g) a list of documents linked to the document d; h) a language of the document d; i) a number of users who have accessed the document d; j) a number of users who have saved the document d in a favorite document list; and k) a list of users previously interested in the document d (see col. 4, lines 40-55; col. 10, lines 55-60; col. 12, lines 45-65; col. 13, lines 1-30; col. 17, lines 25-45; col. 18, lines 35-55; col. 23, lines 1-40, Gerace discloses that the probability and weighting factor takes into consideration many aspects of document parameters).

As to claim 8, Gerace teaches the method of claim 1 wherein the parameters of the learning machine define a user u-dependent function selected from the group consisting of: a) a user topic probability distribution P(t,u) representing interests of the user u in various topics t; b) a user product probability distribution P(t/u) representing interests of the user u in various products t; c) a user product feature probability distribution function representing interests of the user u in various features/of each of the various products p; d) a web site probability distribution P(s/u) representing interests of the user u in various web sites s; e) a cluster probability distribution P(c(u)3u) representing similarity of the user u to users in various clusters c(u); f) a phrase model probability distribution p(w/u) representing interests of the user u in various phrases w; g) an information theory based measure I(Iw; Iu) representing mutual information between various phrases w and the user u; h) an information theory based measure I(Iw; Iu) representing mutual information between various topics and the user u; i) an information theory based measure I(Is/Iu) representing mutual information between various web sites s and the user u; j) an information theory based measure I(Is/Iu) representing mutual information between various products and the user u; and k) an information theory based measure I(If;Iu) representing mutual information between various features of each of the various products p and the user u (see col. 4, lines 40-55; col. 10, lines 55-60; col. 12, lines 45-65; col. 13, lines 1-30; col. 15-16; col. 17, lines 25-45; col. 18, lines 35-55; col. 23, lines 1-40, Gerace discloses that the probability and weighting factor takes into consideration many aspects of document statistical/probability and weight ranking factors).

As to claim 9, Gerace teaches the method of claim 1 wherein the parameters of the learning machine define: a) a user product probability distribution P(p;u) representing interests of the user u in various products p; and b) a user product feature probability distribution P(u;p) representing interests of the user u in various features/of each of the various products p; and wherein the method further comprises estimating a probability P(u/d, product described=p) that a document d that describes a product is of interest to the user u, wherein the probability is estimated in part from the user product

probability distribution and the user product feature probability distribution (see col. 15; col. 18);

As to claim 10, Gerace teaches the method of claim 9 further comprising recommending products to the user based on the probability P(u/d), product described =p (see col. 7, lines 30-40; col. 8, lines 20-25; col. 9, lines 30-67; col. 12, lines 30-60; col. 15, lines15-67, Gerace discloses that weighting factors used to determine a ranking factor for statistical probability measure uses product description).

As to claim 11, Gerace teaches the method of claim 1 further comprising estimating a posterior probability P(u/d,q) that the document d is of interest to the user u, given a query q submitted by the user (see col. 5, lines 10-15; col. 22, lines 20-30; col. 23, lines 1-20, Gerace discloses that the program controller 79 tracks user actions taken (selection/clickthroughs) and ranks documents based on a search result list displayed to the user).

As to claim 12, Gerace teaches the method of claim 1 wherein estimating the posterior probability comprises estimating a probability P(q/d,q) that the query q is expressed by the user u with an information need in the document d (see col. 5, lines 10-15; col. 22, lines 20-30; col. 23, lines 1-20, Gerace discloses that the program controller 79 tracks user actions taken (selection/clickthroughs) and ranks documents based on a search result list displayed to the user).

As to claim 13, Gerace teaches the method of claim I further comprising applying the identified properties of the document d to a learning machine having product parameters characterizing a product p to estimate a probability P(p/d) that the document d refers to the product p (see col. 17-20).

As to claim 14, Gerace teaches the method of claim 13 further comprising updating the product parameters based on the identified properties of the document d and the estimated probability P(p/d) (see col. 15, lines 20-65; col. 16-20, Gerace discloses that ranking of a document is continuously updated through regression analysis).

As to claim 15, Gerace teaches the method of claim 13 further comprising initializing the product parameters based on a set of documents associated with the product P (see col. 12, lines 30-65; col. 15, Gerace discloses that add series package is associated and ranked based on associated documents viewed by the user).

As to clam 20, Gerace teaches the method of claim 1 further comprising parsing the document d for hyperlinks, and separately estimating for each of the hyperlinks a probability that the hyperlink is of interest to the user u (see col. 6, lines 1-67; col. 7, lines 5-15).

As to claim 22, Gerace teaches the method of claim 1 wherein the monitored user interactions include a sequence of interaction times (see col. 7, lines 15-25).

As to claim 23, Gerace teaches the method of claim 1 further comprising initializing the User Model using information selected from the group consisting of a set of documents provided by the user, a web browser history file associated with the user, a web browser bookmarks file associated with the user, ratings by the user of a set of documents, and previous product purchases made by the user (see col. 7, lines 15-40; col. 9-10).

As to claim 24, Gerace teaches the method of claim 1 further comprising modifying the User Model based on User Model modification requests provided by the user (see col. 2, line 60, Gerace discloses self tailoring of user profile).

As to claims 27-28, Gerace teaches the method of claim 1 further comprising temporarily using a User Model that is built from a set of predetermined parameters of a profile selected by the user and further comprising initializing the User Model by selecting a set of predetermined parameters of a prototype user selected by the user (see col. 2, lines 45-65; col. 6, lines 1-65, Gerace discloses that the user profile is self tailored by the user or a default user profile is targeted to users based on common demographics).

As to claim 29, Gerace teaches the method of claim 28 further comprising updating the predetermined parameters of the prototype user based on actions of users similar to the prototype user (see col. 2, lines 50-65; col. 6, lines 1-40, Geraace discloses that a defaulter user profile is used and then updated to reflect the profile of the new user).

As to claim 30, Gerace teach the method of claim 1 further comprising identifying a set of users interested in the document d (see col. 2, line 60).

As to claim 31, Gerace teaches the method of claim 30 further comprising calculating a range of interests in the document d for the identified set of users (see col. 2, line 60; col. 15, lines 20-65).

Claims 32-46, 51, 53-55, and 58-62 do not teach or define any new limitations above claims 1-15, 20, 22-24, and 27-31 and therefore are rejected for similar reasons.

Claim Rejections - 35 USC § 103(a)

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

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

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

4. Claims 16-18, 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerace (U.S Patent No. 5,991,735).

Gerace teaches the invention substantially as claimed including a method, system and program for targeting audiences based on psychographic or demographic profile using regression analysis and continually updating profile of users (see abstract; col. 2).

As to claims 16, and 18, Gerace teaches the method of claim 1 further comprising clustering multiple users into clusters of similar users (see col. 2, line 60; col. 6, lines 1-40, Gerace discloses that users are grouped based on demographics)

Gerace fails to teach the limitation wherein the clustering comprises calculating distances between User Models, and selecting similar users based on the calculated distances between User Models. Gerace teaches that a user object represents the user

model and that profiling member updates the user object to reflect the current user model (see col. 2; col. 6; col. 12, lines 30-65).

"Official Notice" is taken that the concept and advantages of calculating distances between User Models, and selecting similar users based on the calculated distances between User Models to group users with similar profiles is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gerace by specifying calculating distances between User Models, and selecting similar users based on the calculated distances between User Models to determine similar groups of users. One would be motivated to do so since probability and statistical model frequently use distance measurements to arrive at common similarities between groups of users.

As to claim 17, Gerace teaches the method of claim 1.

Gerace fails to teach the claimed limitation of calculating relative entropy values between User Models of multiple users, and clustering together users based on the calculated relative entropy values. Gerace does teach that users are clustered based on similar psychographic and demographic profiles (see col. 2; col. 6; col. 12).

"Official Notice" is taken that the concept and advantages of calculating relative entropy values between User Models of multiple users, and clustering together users based on the calculated relative entropy values is old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gerace by specifying calculating relative entropy values between User Models of multiple users, and clustering together users based on the calculated relative entropy values to determine similar groups of users. One would be motivated to do so since probability and statistical model frequently use relative entropy value measurements between User Models of multiple users to arrive at common similarities between groups of users.

Claims 47-49 do not teach or define any new limitations above claims 16-18 and therefore are rejected for similar reasons.

Claim Objections (Allowable Subject Matter)

6. Claims 19, 21, 25-26, 50, 52, and 56-57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach neither singly nor in combination the claimed features of selecting in a group of users an expert user in an area of expertise, wherein selecting the expert user comprises finding an expert User Model among User Models of the group of users, such that the expert User Model indicates a strong interest of the expert user in a document associated with the area of expertise or sending to a third party web server user interest information derived from the User Model, whereby the third party web server may customize its interaction with the user or providing to the user a score for a document identified by the user, wherein the score is derived from the estimated probability or providing to the user a 3D map of a hyper linked document collection, wherein the 3D map indicates a user interest in each document as in claims 19, 21, 25-26, 50, 52, and 56-57.

Response to Arguments

7. Applicant's arguments with respect to claims 1-8 and 10-20 filed on April 14, 2005 have been fully considered but they are not deemed to be persuasive and deemed to be moot in view of the new grounds of rejection.

8. Applicant's arguments have been fully considered. The examiner has attempted to answer the remarks in the body of the Office action.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bharat Barot whose telephone number is (571) 272-3979. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne, can be reached at (571) 272-4001.

Any inquiry of general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-3900.

Bharat Barot

BHARAT BAROT
PRIMARY EXAMINER

Patent Examiner Bharat Barot
Art Unit 2155
June 29, 2005

OIPE JC35 DEC 28 2004 PATENT & TRADEMARK OFFICE

FORM PTO-1449U.S. DEPARTMENT OF COMMERCE	ATTY. DOCKET NO. UTO-101/US	SERIAL NO. 09/597,975
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT Yochai Konig et al.	
	FILING DATE 6/20/2000	GROUP ~~2157~~ 2155

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	RELEVANT INFORMATION

FOREIGN PATENT DOCUMENTS

		2-letter code	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

BB	A		Yann LeCun (2004) in a lecture entitled "Machine Learning and Pattern Recognition" and presented at The Courant Institute, New York University
BB	B		Basset et al. (2002) in a paper entitled "A Study of Generalization Techniques in Evolutionary Rule Learning"

EXAMINER Bharat Barot	**DATE CONSIDERED** 08/29/2005

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

Notice of References Cited	Application/Control No. 09/597,975	Applicant(s)/Patent Under Reexamination KONIG ET AL.	
	Examiner Bharat N. Barot	Art Unit 2155	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,991,735 A	11-1999	Gerace, Thomas A.	705/10
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

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

NON-PATENT DOCUMENTS

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

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

Index of Claims

Application/Control No.	Applicant(s)/Patent under Reexamination
09/597,975	KONIG ET AL.
Examiner	**Art Unit**
Bharat N. Barot	2155

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

Claim		Date	Claim		Date	Claim		Date
Final	Original	6/29/05	Final	Original	6/29/05	Final	Original	
	1	√		51	√		101	
	2	|		52	O		102	
	3	|		53	√		103	
	4	|		54	√		104	
	5	|		55	√		105	
	6	|		56	O		106	
	7	|		57	O		107	
	8	|		58	√		108	
	9	|		59	|		109	
	10	|		60	|		110	
	11	|		61	|		111	
	12	|		62	√		112	
	13	|		63			113	
	14	|		64			114	
	15	|		65			115	
	16	|		66			116	
	17	|		67			117	
	18	√		68			118	
	19	O		69			119	
	20	√		70			120	
	21	O		71			121	
	22	√		72			122	
	23	√		73			123	
	24	√		74			124	
	25	O		75			125	
	26	O		76			126	
	27	√		77			127	
	28	|		78			128	
	29	|		79			129	
	30	|		80			130	
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	32	|		82			132	
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OIPE JC35 DEC 28 2004 PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/597,975 Docket No.: UTO-101

Filing Date: 06/20/2000 Art Unit: 2157

Applicants: Konig *et al.* Examiner: Barbara N. Burgess

Title: Automatic, Personalized Online Information and Product Services

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner of Patents, Alexandria, VA 22313-1450

on 12/22/04 (Date) Sylvia Lee (Signature)

SYLVIA LEE

Type or print name of person signing

Reply under 37 CFR 1.111

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

Sir:

In reply to the Non-Final Office Action mailed by the USPTO on November 17th, 2004, the Applicant respectfully submits the following amendments and remarks.

AMENDMENTS TO THE CLAIMS

1. (*Currently Amended*) A computer-implemented method for providing automatic, personalized information services to a user *u*, the method comprising:

a) transparently monitoring user interactions with data while the user is engaged in normal use of a computer;

b) updating user-specific data files, wherein the user-specific data files comprise the monitored user interactions with the data and a set of documents associated with the user;

c) estimating parameters of a learning machine, wherein the parameters define a User Model specific to the user and wherein the parameters are estimated in part from the user-specific data files;

d) analyzing a document *d* to identify properties of the document;

e) estimating a probability *P(u|d)* that ~~the~~ an unseen document *d* is of interest to the user *u*, wherein the probability *P(u|d)* is estimated by applying the identified properties of the document to the learning machine having the parameters defined by the User Model; and

f) using the estimated probability to provide automatic, personalized information services to the user.

2. (*Original*) The method of claim 1 wherein the user-specific data files include documents of interest to the user *u* and documents that are not of interest to the user *u*, and wherein estimating the parameters comprises distinct treatment of the documents of interest and the documents that are not of interest.

3. (*Original*) The method of claim 1 wherein analyzing the document *d* provides for the analysis of documents having multiple distinct media types.

4. (*Original*) The method of claim 1 wherein transparently monitoring user interactions with data comprises monitoring multiple distinct modes of user interaction with network data.

5. (*Original*) The method of claim 4 wherein the multiple distinct modes of user interaction comprise a mode selected from the group consisting of a network searching mode, a network navigation mode, a network browsing mode, an email reading mode, an email writing mode, a document writing mode, a viewing "pushed" information mode, a finding expert advice mode, and a product purchasing mode.

6. (*Original*) The method of claim 1 further comprising crawling network documents, wherein the crawling comprises parsing crawled documents for links, calculating probable user interest in the parsed links using the learning machine, and preferentially following links likely to be of interest to the user.

7. (*Original*) The method of claim 1 wherein the identified properties of the document *d* comprise a user *u*-independent property selected from the group consisting of:

a) a probability *P(t,d)* that the document *d* is of interest to users interested in a topic *t*;

b) a topic classifier discrete probability distribution $P(t|d)$;

c) a product model discrete probability distribution $P(p|d)$;

d) product feature values extracted from the document *d*;

e) an author of the document *d*;

f) an age of the document *d*;

g) a list of documents linked to the document *d*;

h) a language of the document *d*;

i) a number of users who have accessed the document *d*;

j) a number of users who have saved the document *d* in a favorite document list; and

k) a list of users previously interested in the document *d*.

8. (*Original*) The method of claim 1 wherein the parameters of the learning machine define a user *u*-dependent function selected from the group consisting of:

a) a user topic probability distribution $P(t|u)$ representing interests of the user *u* in various topics *t*;

b) a user product probability distribution $P(p|u)$ representing interests of the user *u* in various products *p*;

c) a user product feature probability distribution $P(f|u,p)$ representing interests of the user *u* in various features *f* of each of the various products *p*;

d) a web site probability distribution $P(s|u)$ representing interests of the user *u* in various web sites *s*;

PUM 0067599

e) a cluster probability distribution $P(c(u)|u)$ representing similarity of the user u to users in various clusters $c(u)$;

f) a phrase model probability distribution $P(w|u)$ representing interests of the user u in various phrases w;

g) an information theory based measure $I(I_w; I_u)$ representing mutual information between various phrases w and the user u;

h) an information theory based measure $I(I_t; I_u)$ representing mutual information between various topics t and the user u;

i) an information theory based measure $I(I_s; I_u)$ representing mutual information between various web sites s and the user u;.

j) an information theory based measure $I(I_p; I_u)$ representing mutual information between various products p and the user u; and

k) an information theory based measure $I(I_f; I_u)$ representing mutual information between various features f of each of the various products p and the user u.

9. (*Original*) The method of claim 1 wherein the parameters of the learning machine define:

a) a user product probability distribution $P(p|u)$ representing interests of the user u in various products p; and

b) a user product feature probability distribution $P(f|u,p)$ representing interests of the user u in various features f of each of the various products p;

and wherein the method further comprises estimating a probability *P(u|d,* product described=*p*) that a document *d* that describes a product *p* is of interest to the user *u*, wherein the probability is estimated in part from the user product probability distribution and the user product feature probability distribution.

10. (*Original*) The method of claim 9 further comprising recommending products to the user based on the probability *P(u|d,* product described=*p*).

11. (*Original*) The method of claim 1 further comprising estimating a posterior probability *P(u|d,q)* that the document *d* is of interest to the user *u*, given a query *q* submitted by the user.

12. (*Original*) The method of claim 11 wherein estimating the posterior probability comprises estimating a probability *P(q|d,u)* that the query *q* is expressed by the user *u* with an information need in the document *d*.

13. (*Original*) The method of claim 1 further comprising applying the identified properties of the document *d* to a learning machine having product parameters characterizing a product *p* to estimate a probability *P(p|d)* that the document *d* refers to the product *p*.

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14. (*Original*) The method of claim 13 further comprising updating the product parameters based on the identified properties of the document *d* and the estimated probability *P(p|d)*.

15. (*Original*) The method of claim 13 further comprising initializing the product parameters based on a set of documents associated with the product *p*.

16. (*Original*) The method of claim 1 further comprising clustering multiple users into clusters of similar users, wherein the clustering comprises calculating distances between User Models, and selecting similar users based on the calculated distances between User Models.

17. (*Original*) The method of claim 1 further comprising calculating relative entropy values between User Models of multiple users, and clustering together users based on the calculated relative entropy values.

18. (*Original*) The method of claim 1 wherein the parameters defining the User Model comprise calculated distances between the User Model and User Models of users similar to the user.

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19. (*Original*) The method of claim 1 further comprising selecting in a group of users an expert user in an area of expertise, wherein selecting the expert user comprises finding an expert User Model among User Models of the group of users, such that the expert User Model indicates a strong interest of the expert user in a document associated with the area of expertise.

20. (*Original*) The method of claim 1 further comprising parsing the document *d* for hyperlinks, and separately estimating for each of the hyperlinks a probability that the hyperlink is of interest to the user *u*.

21. (*Original*) The method of claim 1 further comprising sending to a third party web server user interest information derived from the User Model, whereby the third party web server may customize its interaction with the user.

22. (*Original*) The method of claim 1 wherein the monitored user interactions include a sequence of interaction times.

23. (*Original*) The method of claim 1 further comprising initializing the User Model using information selected from the group consisting of a set of documents provided by the user, a web browser history file associated with the user, a web browser bookmarks file associated with the user, ratings by the user of a set of documents, and previous product purchases made by the user.

PUM 0067603

24. (*Original*) The method of claim 1 further comprising modifying the User Model based on User Model modification requests provided by the user.

25. (*Original*) The method of claim 1 further comprising providing to the user a score for a document identified by the user, wherein the score is derived from the estimated probability.

26. (*Original*) The method of claim 1 further comprising providing to the user a 3D map of a hyper linked document collection, wherein the 3D map indicates a user interest in each document.

27. (*Original*) The method of claim 1 further comprising temporarily using a User Model that is built from a set of predetermined parameters of a profile selected by the user.

28. (*Original*) The method of claim 1 further comprising initializing the User Model by selecting a set of predetermined parameters of a prototype user selected by the user.

29. (*Original*) The method of claim 28 further comprising updating the predetermined parameters of the prototype user based on actions of users similar to the prototype user.

30. (*Original*) The method of claim 1 further comprising identifying a set of users interested in the document *d*.

31. (*Original*) The method of claim 30 further comprising calculating a range of interests in the document *d* for the identified set of users.

32. (*Currently Amended*) A program storage device accessible by a central computer, tangibly embodying a program of instructions executable by the central computer to perform method steps for providing automatic, personalized information services to a user *u*, the method steps comprising:

a) transparently monitoring user interactions with data while the user is engaged in normal use of a client computer in communication with the central computer;

b) updating user-specific data files, wherein the user-specific data files comprise the monitored user interactions with the data and a set of documents associated with the user;

c) estimating parameters of a learning machine, wherein the parameters define a User Model specific to the user and wherein the parameters are estimated in part from the user-specific data files;

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d) analyzing a document *d* to identify properties of the document;

e) estimating a probability *P(u|d)* that ~~the~~ an unseen document *d* is of interest to the user *u*, wherein the probability *P(u|d)* is estimated by applying the identified properties of the document to the learning machine having the parameters defined by the User Model; and

f) using the estimated probability to provide automatic, personalized information services to the user.

33. (*Original*) The program storage device of claim 32 wherein the user-specific data files include documents of interest to the user *u* and documents that are not of interest to the user *u*, and wherein estimating the parameters comprises distinct treatment of the documents of interest and the documents that are not of interest.

34. (*Original*) The program storage device of claim 32 wherein analyzing the document *d* provides for the analysis of documents having multiple distinct media types.

35. (*Original*) The program storage device of claim 32 wherein transparently monitoring user interactions with data comprises monitoring multiple distinct modes of user interaction with network data.

36. (*Original*) The program storage device of claim 35 wherein the multiple distinct modes of user interaction comprise a mode selected from the group

consisting of a network searching mode, a network navigation mode, a network browsing mode, an email reading mode, an email writing mode, a document writing mode, a viewing "pushed" information mode, a finding expert advice mode, and a product purchasing mode.

37. (*Original*) The program storage device of claim 32 wherein the method steps further comprise crawling network documents, wherein the crawling comprises parsing crawled documents for links, calculating probable user interest in the parsed links using the learning machine, and preferentially following links likely to be of interest to the user.

38. (*Original*) The program storage device of claim 32 wherein the identified properties of the document *d* comprise a user *u*-independent property selected from the group consisting of:

a) a probability $P(t,d)$ that the document *d* is of interest to users interested in a topic *t*;

b) a topic classifier discrete probability distribution $P(t|d)$;

c) a product model discrete probability distribution $P(p|d)$;

d) product feature values extracted from the document *d*;

e) an author of the document *d*;

f) an age of the document *d*;

g) a list of documents linked to the document *d*;

h) a language of the document *d*;

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i) a number of users who have accessed the document *d*;

j) a number of users who have saved the document *d* in a favorite document list; and

k) a list of users previously interested in the document *d*.

39. (*Original*) The program storage device of claim 32 wherein the parameters of the learning machine define a user *u*-dependent function selected from the group consisting of:

a) a user topic probability distribution $P(t|u)$ representing interests of the user *u* in various topics *t*;

b) a user product probability distribution $P(p|u)$ representing interests of the user *u* in various products *p*;

c) a user product feature probability distribution $P(f|u,p)$ representing interests of the user *u* in various features *f* of each of the various products *p*;

d) a web site probability distribution $P(s|u)$ representing interests of the user *u* in various web sites *s*;

e) a cluster probability distribution $P(c(u)|u)$ representing similarity of the user *u* to users in various clusters $c(u)$;

f) a phrase model probability distribution $P(w|u)$ representing interests of the user *u* in various phrases *w*;

g) an information theory based measure $I(I_w; I_u)$ representing mutual information between various phrases *w* and the user *u*;

PUM 0067608

h) an information theory based measure $I(I_t; I_u)$ representing mutual information between various topics t and the user u;

i) an information theory based measure $I(I_s; I_u)$ representing mutual information between various web sites s and the user u;.

j) an information theory based measure $I(I_p; I_u)$ representing mutual information between various products p and the user u; and

k) an information theory based measure $I(I_f; I_u)$ representing mutual information between various features f of each of the various products p and the user u.

40. (*Original*) The program storage device of claim 32 wherein the parameters of the learning machine define:

a) a user product probability distribution $P(p|u)$ representing interests of the user u in various products p; and

b) a user product feature probability distribution $P(f|u,p)$ representing interests of the user u in various features f of each of the various products p;

and wherein the method steps further comprise estimating a probability $P(u|d,$ product described=$p)$ that a document d that describes a product p is of interest to the user u, wherein the probability is estimated in part the user product probability distribution and the user product feature probability distribution.

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41. (*Original*) The program storage device of claim 40 wherein the method steps further comprise recommending products to the user based on the probability $P(u|d,$ product described$=p)$.

42. (*Original*) The program storage device of claim 32 wherein the method steps further comprise estimating a posterior probability $P(u|d,q)$ that the document d is of interest to the user u, given a query q submitted by the user.

43. (*Original*) The program storage device of claim 42 wherein estimating the posterior probability comprises estimating a probability $P(q|d,u)$ that the query q is expressed by the user u with an information need in the document d.

44. (*Original*) The program storage device of claim 32 wherein the method steps further comprise applying the identified properties of the document d to a learning machine having product parameters characterizing a product p to estimate a probability $P(p|d)$ that the document d refers to the product p.

45. (*Original*) The program storage device of claim 44 wherein the method steps further comprise updating the product parameters based on the identified properties of the document d and the estimated probability $P(p|d)$.

PUM 0067610

46. (*Original*) The program storage device of claim 44 wherein the method steps further comprise initializing the product parameters based on a set of documents associated with the product *p*.

47. (*Original*) The program storage device of claim 32 wherein the method steps further comprise clustering multiple users into clusters of similar users, wherein the clustering comprises calculating distances between User Models, and selecting similar users based on the calculated distances between User Models.

48. (*Original*) The program storage device of claim 32 wherein the method steps further comprise calculating relative entropy values between User Models of multiple users, and clustering together users based on the calculated relative entropy values.

49. (*Original*) The program storage device of claim 32 wherein the parameters defining the User Model comprise calculated distances between the User Model and User Models of users similar to the user.

50. (*Original*) The program storage device of claim 32 wherein the method steps further comprise selecting in a group of users an expert user in an area of expertise, wherein selecting the expert user comprises finding an expert User Model among User Models of the group of users, such that the expert User Model

PUM 0067611

indicates a strong interest of the expert user in a document associated with the area of expertise.

51. (*Original*) The program storage device of claim 32 wherein the method steps further comprise parsing the document *d* for hyperlinks, and separately estimating for each of the hyperlinks a probability that the hyperlink is of interest to the user *u*.

52. (*Original*) The program storage device of claim 32 wherein the method steps further comprise sending to a third party web server user interest information derived from the User Model, whereby the third party web server may customize its interaction with the user.

53. (*Original*) The program storage device of claim 32 wherein the monitored user interactions include a sequence of interaction times.

54. (*Original*) The program storage device of claim 32 wherein the method steps further comprise initializing the User Model using information selected from the group consisting of a set of documents provided by the user, a web browser history file associated with the user, a web browser bookmarks file associated with the user, ratings by the user of a set of documents, and previous product purchases made by the user.

55. (*Original*) The program storage device of claim 32 wherein the method steps further comprise modifying the User Model based on User Model modification requests provided by the user.

56. (*Original*) The program storage device of claim 32 wherein the method steps further comprise providing to the user a score for a document identified by the user, wherein the score is derived from the estimated probability.

57. (*Original*) The program storage device of claim 32 wherein the method steps further comprise providing to the user a 3D map of a hyper linked document collection, wherein the 3D map indicates a user interest in each document.

58. (*Original*) The program storage device of claim 32 wherein the method steps further comprise temporarily using a User Model that is built from a set of predetermined parameters of a profile selected by the user.

59. (*Original*) The program storage device of claim 32 wherein the method steps further comprise initializing the User Model by selecting a set of predetermined parameters of a prototype user selected by the user.

60. (*Original*) The program storage device of claim 59 wherein the method steps further comprise updating the predetermined parameters of the prototype user based on actions of users similar to the prototype user.

61. (*Original*) The program storage device of claim 32 wherein the method steps further comprise identifying a set of users interested in the document *d*.

62. (*Original*) The program storage device of claim 61 wherein the method steps further comprise calculating a range of interests in the document *d* for the identified set of users.

REMARKS

The following remarks were used in the phone interview as a basis for discussion and will herewith entered as an official reply to the latest office action.

PHONE INTERVIEW

A phone interview took place on the 13th and the 20th of December 2004 between Supervisor Etienne, Examiner Burgess and undersigned agent Ron Jacobs. Conclusion was reached that (i) Breese was not prior art to the original claims, and (ii) applicant proposed an amendment to the two independent claims (1 and 32) to indicate "*unseen documents*". It was further acknowledged that such a claim amendment places the claims in a condition of allowance.

CLAIM REJECTION, 35 USC Paragraph 103

Claims 1-62 were rejected under U.S.C. 103(a) as being unpatentable over *Breese et al.* (U.S. Patent No. 6,006,218).

In reply, the Applicant respectfully disagrees.

1. Inconsistency among the rejections in Office Actions

In the Non-Final Office Action dated January 29, 2004 the Examiner rejected claims 1-62 under U.S.C. 103(a) as being unpatentable over *Breese et al.* (U.S. Patent No. 6,006,218) in view of *Hertz et al.* (U.S. Patent No. 5,754,939). The Examiner stated that *Breese*

disclosed claim element 1a, 1b, and 1d and believed that *Hertz* disclosed claim element 1c, 1e and 1f.

In the Final Office Action dated June 4th, 2004 the Examiner dropped *Hertz* in the 103 argument pursuant of Applicants' previous arguments and still alleges that "*Breese does not explicitly disclose*" 1c, 1e and 1f [page 3 of the Office Action; underline and italic by Applicants]. The Applicant argued that if *Breese* does not explicitly disclose as the Examiner states, how can a complete and lawful 103 argument be construed that render the claims obvious? Examiner withdrew finality but did not address the arguments made by Applicant with respect to the claim rejection! The Applicant hereby invites to comment on these arguments.

In the present Office Action, i.e. a Non-Final Office Action, the Examiner again changed arguments and now believes that *Breese* disclosed claim elements 1a, 1b, 1d and 1f. Further the Examiner still alleges that "*Breese does not explicitly disclose*" 1c and 1e [page 3 of the Office Action; underline and italic by Applicants]. However, the Examiner argues on the same page 3 of the Office Action in the second paragraph, referencing *Breese*, that memorization is used by *Breese*. The Applicant argues that the reference passages in *Breese* do not teach or suggest the remaining claim elements. The Applicant invites the Examiner to discuss and explain how these passages teach or suggest the remaining claim elements.

It is noted that the numerous Office Actions received during prosecution of the

application have been inconsistent and raise questions about Examination process.

2. Breese does not teach not suggest the claimed invention

With this reply, the Applicant enters a new argument to make it yet again clear that *Breese* and the present claims are very different. The Applicant hereby also incorporates all previous arguments made in previous replies to Office Actions.

***Breese* teaches memorization, and not learning or generalization.**

1. *Breese* tallies up seen objects (memorization), determines the probability that a user has seen the object, and then does not show it again to the user.
2. The Examiner even acknowledges in the present office action stating on page 9 "According to Breese, if the user already knows the document, it is considered to be of little or no interest." This clearly states "memorization.

With this reply two documents have been added to be part of the record stating the meaning of memorization as known by a person of average skill in the art.

A. Slide 9 (marked with page number 10 by author) is titled: "**Learning is not memorization**" [Underline and bold added by Applicant].

The reference can be found at http://www.cs.nyu.edu/~yann/2004s-G22-3033-014/diglib/lecture01.pdf

B. On page 9 (page 9 of PDF document, page 1 of the Ph.D. thesis) of this 2002 thesis the Author states the following:

"Lets consider the simplest form of learning, namely **memorization**, also known as rote learning. An agent can easily learn that "When I see A, I should do B". This will be enough if our agent is working in a very simple environment. But as we scale our system up to deal with environments, which are closer to those encountered in real world, we discover a problem. It cannot possibly **learn** what to do in every possible situation, there are just too many....." [Underline and bold added by Applicant].

The reference can be found at http://cs.gmu.edu/~eclab/papers/Bassett02thesis.pdf

These two statements clearly state the understanding by a person of average skill in the art to which the invention pertains of the difference between memorization and learning. The Applicant is ready to submit more support upon request by the Office.

A **person of average skill in the art** clearly understands that the teaching of *Breese* are merely memorization and *not* learning. *Breese* does not teach and not even address the problem of generality and predictability beyond a memory model and can therefore not render the present claims obvious. Furthermore, the **same person of average skill in the art** clearly understands that the teaching of the present invention deal with learning, predictability and generalization as clearly claimed. The Applicant would be happy to submit further materials to make this point clear if desired by the Office.

CONCLUSION

Applicant respectfully submits that the present claims 1-62 are **NOT obvious** with respect to *Breese*. A ***prima facie*** case of obviousness (MPEP 2143) has **not been established** as discussed *supra* and previously.

The Applicants submit that claims 1-62 are novel and unobvious over *Breese*. Accordingly, allowance of the claims now in the application is kindly requested.

Respectfully submitted,

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/597,975
Filing Date	6/20/2000
First Named Inventor	Konig et al.
Art Unit	2157
Examiner Name	Barbara N. Burgess
Attorney Docket Number	UTO-101/US

Total Number of Pages in This Submission: 4

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☑ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☑ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
- ☐ After Allowance communication to Technology Center (TC)
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please Identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Ron Jacobs Ph. D. Reg No. 50,142
Signature	
Date	12-22-04

CERTIFICATE OF TRANSMISSION/MAILING

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

Typed or printed name	SYLVIA LEE		
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This collection of information is required by 37 CFR 1.5. 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 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, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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In the United States Patent and Trademark Office

Application No.:	09/597,975
Filed:	6/20/2000
Title:	Automatic, Personalized Online Information and Product Services
Applicant(s):	Konig et al.
Examiner:	Barbara N. Burgess
Art Unit:	2157

Mailed 12-22-04
Palo Alto, CA

Information Disclosure Statement

Commissioner of Patents and Trademarks
Alexandria, VA 22313

Dear Sir or Madam:

Attached is a completed Form PTO-1449 and copies of the pertinent parts of the references cited thereon. It is requested that the document(s) on the enclosed form be made of record.

Part I (Authority)

This statement is filed pursuant to:

(X) 37 C.F.R. § 1.97(b).

This information disclosure statement is filed either (1) within three months of the filing date of the national application; (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; (3) before the mailing date of a first office action on the merits, or (4) before the mailing of a first Office action after the filing of an RCE under § 1.114, whichever event occurs last.

Accordingly, this information disclosure statement requires no fee and no certification.

( ) 37 C.F.R. § 1.97(c).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97(b), but before the mailing date of either (1) a final action under 37 C.F.R. § 1.113 or (2) a notice of allowance under 37 C.F.R. § 1.311.

Accordingly, this information disclosure statement requires either the fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) ($180), or a certification according to 37 C.F.R. § 1.97(e).

( ) 37 C.F.R. § 1.97(d).

This information disclosure statement is filed after the period specified in 37 C.F.R. § 1.97(c).

Accordingly, this information disclosure statement requires the fee specified in 37 C.F.R. § 1.17(p) ($180) and a certification according to 37 C.F.R. § 1.97(e).

Conditional Petition

It is respectfully requested that this information disclosure statement be considered, good cause being presented in Part III herein (certification). Please treat this paper as the required petition.

If this statement crosses in the mail with an office action, or is otherwise not in the indicated category of 37 C.F.R. § 1.97, it is respectfully requested that this statement be treated in the next appropriate category and made of record.

To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.

Part II (Payment)

A check is enclosed as indicated:

(X) No fee is due.

( ) The fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) or 37 C.F.R. § 1.97(d) is enclosed ($180).

Part III (Certification)

Pursuant to 37 C.F.R. § 1.97(e), I certify:

(X) No certification is necessary.

( ) Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the statement.

( ) No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c), more than three months prior to the filing of the statement.

Part IV (Additional Statement)

An additional statement regarding these items of information ( ) is, (X) is not, enclosed.
Copies of the cited documents (X) are enclosed, ( ) are of record in parent application Serial No. _____ and will be provided if the Examiner deems it convenient.

Respectfully submitted,

Dated: 12-22-04

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Palo Alto, CA 94306
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FORM PTO-1449U.S. DEPARTMENT OF COMMERCE	ATTY. DOCKET NO. UTO-101/US	SERIAL NO. 09/597,975
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)	APPLICANT Yochai Konig et al.	
	FILING DATE 6/20/2000	GROUP 2157

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	RELEVANT INFORMATION

FOREIGN PATENT DOCUMENTS

		2-letter code	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	A		Yann LeCun (2004) in a lecture entitled "Machine Learning and Pattern Recognition" and presented at The Courant Institute, New York University
	B		Basset et al. (2002) in a paper entitled "A Study of Generalization Techniques in Evolutionary Rule Learning"

EXAMINER	**DATE CONSIDERED**

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

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March 8, 2004

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EXAMINER	
BURGESS, BARBARA N	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 11/17/2004

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

Office Action Summary	Application No.	Applicant(s)	
	09/597,975	KONIG ET AL.	
	Examiner	Art Unit	
	Barbara N Burgess	2157	

-- 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 *September 7, 2004*.

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

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

Disposition of Claims

4)☒ Claim(s) *1-62* 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) *1-62* 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) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to After-Final filed September 7, 2004. Examiner has withdrawn the finality of claims 1-62. These claims are now presented for further examination.

Claim Rejections - 35 USC § 103

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

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

2. Claims 1-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breese et al. (hereinafter "Breese", 6,006,218).

As per claims 1 and 32, Breese discloses a computer-implemented method for providing automatic, personalized information services to a user u, the method comprising:

- Transparently monitoring user interactions with data while the user is engaged in normal use of a computer (column 3, lines 23-27, column 5, lines 2-5, 15-18, 25-38, column 7, lines 65-67, column 8, lines 1-11);
- Updating user-specific data files, wherein the user-specific data files comprise the monitored user interactions with the data and a set of documents associated with the user (column 5, lines 25-38, column 8, lines 33-36, 40-42, 44-46, column 16, lines 38-40, 50-52);

- Analyzing a document d to identify properties of the document (column 2, lines 53-60, column 5, lines 51-67, column 6, lines 1-2, 11-20, column 8, lines 44-54, column 9, lines 60-63, column 10, lines 1-13);
- Using the estimated probability to provide automatic, personalized information services to the user (column 3, lines 23-32, column 9, lines 12-40, column 16, lines 34-42).

Breese does not explicitly disclose a "learning machine" and "user model". However, Breese teaches an application program or software module for performing the task of monitoring and analyzing the information the user interacts with and makes future predictions and estimations on other information the user would find interesting. These predictions and estimations are based on a user's profile, which include information about previous searches/user actions, user's knowledge of information, gender, age (Abstract, column 2, lines 53-60, 65-67, column 3, lines 25-32, column 5, lines 2-5, 15-17, 30-38, column 8, lines 4-12, 16-35, column 9, lines 6-67, column 10, lines 15-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Breese by specifying application program or software module and user profile as "learning machine" and "user model" respectively since the same functionalities of analyzing the information the user interacts with and profiling the user is achieved.

As per claims 2 and 33, Breese discloses wherein the user-specific data files include documents of interest to the user u and documents that are not of interest to the user u, and wherein estimating the parameters comprises distinct treatment of the documents of interest and the documents that are not of interest (column 12, lines 44-55).

As per claims 3 and 34, Breese discloses wherein analyzing the document d provides for the analysis of documents having multiple distinct media types (column 8, lines 15-26)

As per claims 4 and 35, Breese discloses wherein transparently monitoring user interactions with data comprises monitoring multiple distinct modes of user interaction with network data (column 5, lines 25-38).

As per claims 5 and 36, Breese discloses wherein the multiple distinct modes of user interaction comprise a mode selected from the group consisting of a network searching mode, a network navigation mode, a network browsing mode, an email reading mode, and email writing mode, a document writing mode, a viewing "pushed" information mode, a finding expert advice mode, and a product purchasing mode (column 5, lines 25-38).

As per claims 6 and 37, Breese discloses crawling network documents, wherein the crawling comprises parsing crawled documents for links, calculating probable user

interest in the parsed links using the learning machine, and preferentially following links likely to be of interest to the user (column 9, lines 51-67, column 10, lines 1-27, 38-55).

As per claims 7 and 38, Breese discloses wherein the identified properties of the document d comprise a user u-independent property selected from the group consisting of:

- A probability P (tad) that the document d is of interest to users interested in a topic t (column 6, lines 38-45);
- A topic classifier discrete probability distribution P (t/d) (column 6, lines 38-45);
- A product model discrete probability distribution P (p/d) (column 6, lines 38-45);
- Product feature values extracted from the document d (column 9, lines 50-67, column 10, lines 1-20);
- An author of the document d (column 9, lines 50-67, column 10, lines 1-20);
- An age of the document d (column 9, lines 50-67, column 10, lines 1-20);
- A list of documents linked to the document d (column 9, lines 50-67, column 10, lines 1-20);
- A language of the document d (column 9, lines 50-67, column 10, lines 1-20);
- A number of users who have accessed the document d (column 11, lines 1-30);
- A number of users who have saved the document d in a favorite document list (column 11, lines 1-30);
- A list of users previously interested in the document d (column 11, lines 1-30).

As per claims 8 and 39, Breese does not explicitly disclose wherein the parameters of the learning machine define a user u-dependent function selected from the group consisting of:

- A user topic probability distribution P (t/u) representing interests of the user u in various topics t;
- A user product probability distribution P (p/u) representing interests of the user u in various products p;
- A user product feature probability distribution P (F/u, p) representing interests of the user u in various features f of each of the various products p;
- A website probability distribution P(s/u) representing interests of the user u in various websites s;
- A cluster probability distribution P(c (u)/u) representing similarity of the user u to users in various clusters c (u);
- A phrase model probability distribution P (w/u) representing interests of the user u in various phrases w;
- An information theory based measure I (Iw; Iu) representing mutual information between various phrases w and the user u;
- An information theory based measure I (It; Iu) representing mutual information between various topics t and the user u;
- An information theory based measure I (Is; Iu) representing mutual information between various websites s and the user u;

- An information theory based measure I (Ip; Iu) representing mutual information between various products p and the user u;
- An information theory based measure I (If; Iu) representing mutual information between various features f of each of the various products p and the user u.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the user already knows the document, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate the parameters of the learning machine defining a user u-dependent function in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing

of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 9 and 40, Breese does not explicitly disclose wherein the parameters of the learning machine define:

- A user product probability distribution P (p/u) representing interests of the user u in various products p;
- A user product feature probability distribution P (f/u, p) representing interests of the user u in various features f of each of the various products p;
- Estimating a probability P (u/d, product described=p) that a document d that describes a product p is of interest to the user u, wherein the probability is estimated in part from the user product probability distribution and the user product feature probability distribution.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the user already knows the document, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's

experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate the parameters of the learning machine defining user product probability distribution, user product feature probability distribution, and estimating a probability in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 10 and 41, Breese does not explicitly disclose recommending products to the user based on the probability P (u/d, product described=p). However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the user already knows the document, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the

probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate recommending products to the user based on the probability in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 11 and 42, Breese does not explicitly disclose estimating a posterior probability P (u/d, q) that the document d is of interest to the user u, given a query q submitted by the user.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as

unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate estimating a posterior probability in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 12 and 43, Breese does not explicitly disclose wherein estimating the posterior probability comprises estimating a probability P (q/d, u) that the query q is expressed by the user u with an information need in the document d.
However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is

considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate estimating a posterior probability in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 13 and 44, Breese does not explicitly disclose applying the identified properties of the document d to a learning machine having product parameters characterizing a product p to estimate a probability P (p/d) that the document d refers to the product p.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate

(probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate applying identified properties of the document to a learning machine in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 14 and 45, Breese does not explicitly disclose updating the product parameters based on the identified properties of the document d and the estimated probability P (p/d).

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate updating the product parameters based on the identified properties of the document and the estimated probability in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 15 and 46, Breese discloses initializing the product parameters based on a set of documents associated with the product p (column 8, lines 15-50).

As per claims 16 and 47, Breese does not explicitly disclose clustering multiple users into clusters of similar users, wherein the clustering comprises calculating distances between User Models, and selecting similar users based on the calculated distances between User Models.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate clustering multiple users in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 17 and 48, Breese does not explicitly disclose calculating relative entropy values between User Models of multiple users, and clustering together users based on the calculated relative entropy values.
However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are

displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate calculating relative entropy in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 18 and 49, Breese does not explicitly disclose wherein the parameters defining the User Model comprise calculated distances between the User Model and User Models of users similar to the user.
However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible

by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate parameters defining the User Model in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claim 19 and 50, Breese does not disclose selecting in a group of users an expert user in an area expertise, wherein selecting the expert user comprises finding an expert User Model among User Models of the group of users, such that the expert User Model indicates a strong interest of the expert user in a document associated with the area of expertise.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may

be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate selecting in a group of users an expert in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claim 20 and 51, Breese discloses parsing the document d for hyperlinks, and separately estimating for each of the hyperlinks a probability that the hyperlink is of interest to the user u (column 9, lines 51-67, column 10, lines 1-27, 38-55).

As per claims 21 and 52, Breese does not explicitly disclose sending to a third party web server user interest information derived from the User Model, whereby the third party web server may customize its interaction with the user.
However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest

to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate sending to a third party web server user interest information in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 22 and 53, Breese discloses wherein the monitored user interactions include a sequence of interaction times (column 9, lines 63-67).

As per claims 23 and 54, Breese discloses initializing the User Model using information selected from the group consisting of a set of documents provided by the user, a web browser history file associated with the user, a web browser bookmarks file associated with the user, ratings by the user of a set of documents, and previous product purchases made by the user.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate initializing the User Model using information selected from the group consisting of set documents in Breese's system

enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 24 and 55, Breese does not explicitly disclose modifying the User Model based on User Model modification requests provided by the user. However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate modifying the User Model in Breese's

system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 25 and 56, Breese does not explicitly disclose providing to the user a score for a document identified by the user, wherein the score is derived from the estimated probability.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate providing to the user a score in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 26 and 57, Breese discloses providing to the user a 3D map of a hyperlinked document collection, wherein the 3D map indicates a user interest in each document (column 5, lines 25-38).

As per claims 27 and 58, Breese does not explicitly disclose temporarily using a User Model that is built from a set of predetermined parameters of a profile selected by the user.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's

experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate using a User Model built from a set of predetermined parameters in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 28 and 59, Breese does not explicitly disclose initializing the User Model by selecting a set of predetermined parameters of a prototype user selected by the user.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the

probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate initializing the User Model by selecting a set of predetermined parameters in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 29 and 60, Breese does not explicitly disclose updating the predetermined parameters of the prototype user based on actions of users similar to the prototype user.

However, Breese teaches taking the information stored in the user database (User Model) and the information database (properties of the document) to estimate (probability) whether the user has knowledge of the document (document is of interest to the user). According to Breese, if the document is already known to the user, it is considered to be of little or no interest. Known documents may be thought of as

unwanted or not useful which merely distracts the user from more useful material and/or wastes the user's time. The knowledge probability estimator is used to estimate the probability that the user already knows about various documents. Factors which may be used in generating the knowledge probability are popularity of the item, user's experience in the subject, user's occupation, the amount of time a user has been on the Internet, the overall salience of an item, the amount of time an item has been accessible by the public, or on the server, demographic information about the user. The results are displayed so that the user can review them (Abstract, column 7, lines 59-67, column 8, column 9, lines 1-19, 51-67, column 10, column 16, lines 35-42).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate updating the predetermined parameters in Breese's system enabling the user to more efficiently view relevant, unknown documents by generating a rank ordered listing of items most likely to be of interest to the user so that the user can select from among new and useful documents.

As per claims 30 and 61, Breese discloses identifying a set of users interest in the document d (column 16, lines 34-42).

As per claims 31 and 62, Breese discloses calculating a range of interests in the document d for the identified set of users (column 16, lines 34-42).

Response to Arguments

The Office notes the following arguments:

(a) The finality of the Office Action is premature.

In response to:

(a) Examiner acknowledges that Final Office Action (June 4, 2004) was premature. The finality has been withdrawn. This Office Action is made Non-Final and rejected under 35 U.S.C. 103(a) unpatentable over Breese et al. (US Patent No. 6,006,218).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara N Burgess whose telephone number is (571) 272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Barbara N Burgess
Examiner
Art Unit 2157

November 12, 2004

ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Notice of References Cited	Application/Control No. 09/597,975	Applicant(s)/Patent Under Reexamination KONIG ET AL.	
	Examiner Barbara N Burgess	Art Unit 2157	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,006,218	12-1999	Breese et al.	707/3
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

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

NON-PATENT DOCUMENTS

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

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