(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 September 2004 (16.09.2004)

PCT

(10) International Publication Number
WO 2004/079501 A3

(51) International Patent Classification[7]: G06F 15/16

(21) International Application Number:
PCT/US2003/041526

(22) International Filing Date:
31 December 2003 (31.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/374,005 25 February 2003 (25.02.2003) US

(71) Applicant: **MICROSOFT CORPORATION** [US/US]; One Microsoft Way, Redmond, WA 98052 (US).

(72) Inventors: **ROUNTHWAITE, Robert, L.**; 4148 287th Avenue SE, Fall City, WA 98024 (US). **GOODMAN, Joshua, T.**; 17424 NE 38Th Street, Redmond, WA 98052 (US). **HECKERMAN, David, E.**; 648 West Lake Sammamish Lane NE, Bellevue, WA 98008 (US). **PLATT, John, C.**; 4963 166th Ct NE, Redmond, WA 98008 (US). **KADIE, Carl, M.**; 15937 NE 1st Street, Bellevue, WA 98008 (US).

(74) Agents: **AMIN, Himanshu, S.** et al.; Amin & Turocy, LLP, 24th Floor, National City Center, 1900 East 9th Street, Cleveland, OH 44114 (US).

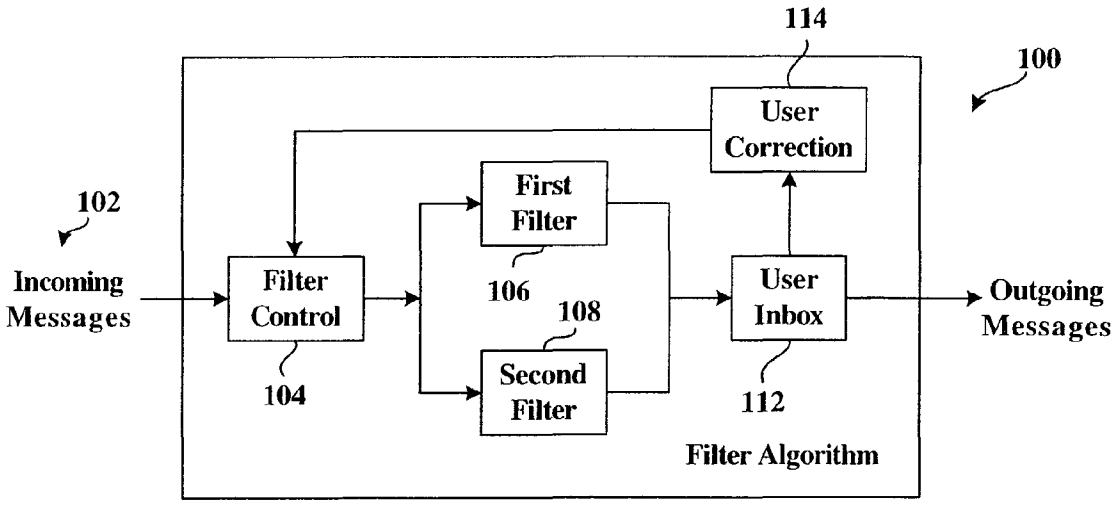
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

[Continued on next page]

(54) Title: ADAPTIVE JUNK MESSAGE FILTERING SYSTEM



(57) **Abstract:** The invention relates to a system for filtering messages (102) - the system includes a seed filter (106) having associated therewith a false positive rate and a false negative rate. A new filter (108) is also provided for filtering the messages (102), the new filter (108) is evaluated according to the false positive rate and the false negative rate of the seed filter, the data used to determine the false positive rate and the false negative rate of the seed filter (106) are utilized to determine a new false positive rate and a new false negative rate of the new filter (108) as a function of threshold. The new filter (108) is employed in lieu of the seed filter (106) if a threshold exists for the new filter (108) such that the new false positive rate and new false negative rate are together considered better than the false positive and the false negative rate of the seed filter (106).

WO 2004/079501 A3

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
6 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.