



- (51) **International Patent Classification:**
G06F 17/21 (2006.01) *G06F 15/16* (2006.01)
- (21) **International Application Number:**
PCT/US2014/038934
- (22) **International Filing Date:**
21 May 2014 (21.05.2014)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
13/900,193 22 May 2013 (22.05.2013) US
13/900,270 22 May 2013 (22.05.2013) US
13/900,265 22 May 2013 (22.05.2013) US
- (71) **Applicant:** **GOOGLE INC.** [US/US]; 1600 Amphitheatre Parkway, Mountain View, CA 94043 (US).
- (72) **Inventors:** **SIMON, Benjamin, Wolfe;** 1600 Amphitheatre Parkway, Mountain View, CA 94043 (US). **TRAGUT, Manuel;** 1600 Amphitheatre Parkway, Mountain View, CA 94043 (US). **LLOYD, Zachary, Erik;** 1600

Amphitheatre Parkway, Mountain View, CA 94043 (US). **DANZIGER, Joshua, Ari;** 1600 Amphitheatre Parkway, Mountain View, CA 94043 (US). **GUNDRUM, Daniel;** 1600 Amphitheatre Parkway, Mountain View, CA 94043 (US).

(74) **Agents:** **INGERMAN, Jeffrey, H.** et al.; Ropesf & Gray LLP, 1211 Avenue Of The Americas, New York, NY 10036 (US).

(81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) **Title:** NON-COLLABORATIVE FILTERS IN A COLLABORATIVE DOCUMENT

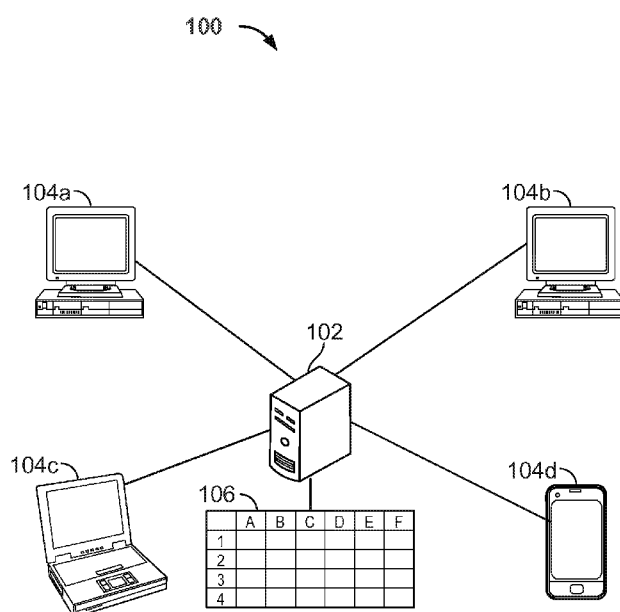


FIG. 1

(57) **Abstract:** Systems and methods for viewing filters on a collaborative spreadsheet stored on a cloud computing service include accessing, from each of a plurality of client computers, a first sheet of a spreadsheet stored on a cloud computing service, where a plurality of filters is associated with the first sheet. A first client computer in the plurality of client computers receives a command by a first user to apply a first filter in the plurality of filters to the first sheet, and applies the first filter to the first sheet on the first client computer. The filtered first sheet is displayed to the first user, and a second client computer in the plurality of client computers concurrently displays an unfiltered first sheet.



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

23 April 2015

A. CLASSIFICATION OF SUBJECT MATTER**G06F 17/21(2006.01)i, G06F 15/16(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06F 17/21; G06F 15/16; G06F 17/00; G06F 17/30; G06F 17/60; G06F 21/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: collaborative, filter, computing, cloud, spreadsheet, and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012-0192055 A1 (OUDI ANTEBI et al.) 26 July 2012 See paragraphs [0002]-[0004], [0011], [0022]-[0025], [0031]-[0034], [0060]-[0069], [0072], [0078]-[0082], [0089], [0096], [0099], [0108], [0117], [0121], and [0143]; claim 1; and figures 1, 5, 7A, and 8B.	1-29, 36-84, 94-100
Y		30-35
A		85-93
Y	US 2010-0185733 A1 (HENRY HON et al.) 22 July 2010 See paragraphs [0029] and [0095]; claim 1; and figures 1 and 3F.	30-35
A	US 2008-0083014 A1 (KENG LIM) 03 April 2008 See paragraphs [0011] and [0109]; claim 1; and figure 1.	1-100
A	WO 2008-025167 A1 (PETER SWEENEY et al.) 06 March 2008 See page 5, lines 4-15; page 39, lines 3-6; claim 1; and figures 1-2.	1-100
A	US 2005-0114169 A1 (HAZIM ANSARI) 26 May 2005 See paragraphs [0015] and [0031]; claim 1; and figure 1.	1-100



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

17 February 2015 (17.02.2015)

Date of mailing of the international search report

17 February 2015 (17.02.2015)

Name and mailing address of the ISA/KR

International Application Division
Korean Intellectual Property Office
189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan City, 302-701,
Republic of Korea

Facsimile No. ++82 42 472 3473

Authorized officer

NHO, Ji Myong

Telephone No. +82-42-481-8528



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2014/038934

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2012-0192055 A1	26/07/2012	None	
US 2010-0185733 A1	22/07/2010	US 2007-0198534 A1 US 2012-0260195 A1 US 7933956 B2 US 8266214 B2 US 8464164 B2	23/08/2007 11/10/2012 26/04/2011 11/09/2012 11/06/2013
US 2008-0083014 A1	03/04/2008	US 2007-0156659 A1 US 2007-0156670 A1 US 2007-0156694 A1 US 2007-0156695 A1 US 2007-0156696 A1 US 2007-0156727 A1 US 2007-0156897 A1 US 2007-0157203 A1 US 2007-0157287 A1 US 2007-0157288 A1 US 2007-0162749 A1 US 2007-0169168 A1 US 2007-0179987 A1 US 2008-0059474 A1 US 2008-0060051 A1 US 2008-0060080 A1 US 2008-0065700 A1 US 2008-0066148 A1 US 2008-0066149 A1 US 2008-0066150 A1 US 2008-0071728 A1 US 2008-0091682 A1 US 2008-0294586 A1 US 2008-0301760 A1 US 2010-0223287 A1 US 2010-0306179 A1 US 2013-0263210 A1 US 7716240 B2 US 7774363 B2 US 7877409 B2 US 7877781 B2 US 8150816 B2 US 8156566 B2 US 8185548 B2 US 8244745 B2 US 8321437 B2 US 8396890 B2 US 8407345 B2 US 8544058 B2 US 8595788 B2 US 8621549 B2	05/07/2007 05/07/2007 05/07/2007 05/07/2007 05/07/2007 05/07/2007 05/07/2007 05/07/2007 05/07/2007 05/07/2007 12/07/2007 19/07/2007 02/08/2007 06/03/2008 06/03/2008 06/03/2008 13/03/2008 13/03/2008 13/03/2008 13/03/2008 20/03/2008 17/04/2008 27/11/2008 04/12/2008 02/09/2010 02/12/2010 03/10/2013 11/05/2010 10/08/2010 25/01/2011 25/01/2011 03/04/2012 10/04/2012 22/05/2012 14/08/2012 27/11/2012 12/03/2013 26/03/2013 24/09/2013 26/11/2013 31/12/2013

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2014/038934

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2008-025167 A1	06/03/2008	US 8627490 B2	07/01/2014
		US 8677499 B2	18/03/2014
		US 8832048 B2	09/09/2014
		US 8849858 B2	30/09/2014
		US 8862551 B2	14/10/2014
		US 8875218 B2	28/10/2014
		WO 2007-120360 A2	25/10/2007
		WO 2007-120360 A3	27/12/2007
WO 2008-025167 A1	06/03/2008	AU 2007-291867 A1	06/03/2008
		CA 2662063 A1	06/03/2008
		CN 101595476 A	02/12/2009
		EP 2062174 A1	27/05/2009
		JP 05-401622 B2	29/01/2014
		JP 2010-501947 A	21/01/2010
		JP 2013-211018 A	10/10/2013
		JP 2014-056591 A	27/03/2014
		US 2007-0118542 A1	24/05/2007
		US 2007-0136221 A1	14/06/2007
		US 2008-0021925 A1	24/01/2008
		US 2009-0300326 A1	03/12/2009
		US 2009-0327205 A1	31/12/2009
		US 2010-0036790 A1	11/02/2010
		US 2010-0049766 A1	25/02/2010
		US 7596574 B2	29/09/2009
		US 7606781 B2	20/10/2009
		US 7844565 B2	30/11/2010
		US 7849090 B2	07/12/2010
		US 7860817 B2	28/12/2010
US 2005-0114169 A1	26/05/2005	US 8010570 B2	30/08/2011
		US 8510302 B2	13/08/2013
US 2005-0114169 A1	26/05/2005	US 2010-0121651 A1	13/05/2010
		US 2012-095928 A1	19/04/2012