International Bureau



(10) International Publication Number WO 2014/145978 A3

(43) International Publication Date 18 September 2014 (18.09.2014)

(51) International Patent Classification: G06F 3/01 (2006.01) G06F 3/0488 (2013.01) G06F 3/03 (2006.01)

(21) International Application Number:

PCT/US2014/030841

(22) International Filing Date:

17 March 2014 (17.03.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/786,473 15 March 2013 (15.03.2013) US 14/212,832 14 March 2014 (14.03.2014) US

- (71) Applicant (for all designated States except US): ALIPH-COM [US/US]; Third Floor, 99 Rhode Island Street, San Francisco, CA 94103 (US).
- (72) Inventors; and
- (71) Applicants: LUNA, Michael, Edward Smith [US/US]; 519 Curie Drive, San Jose, CA 95123 (US). FULLAM, Scott [US/US]; 3982 Sutherland Drive, Palo Alto, CA 94303 (US). NARRON, Patrick, Alan [US/US]; 200 West Lomond, Boulder Creek, CA 95006 (US). MERRILL, Chris [US/US]; 1611 Church Street, San Francisco, CA 94131 (US). BARRENTINE, Derek, Boyd [US/US]; 9369 Lone Deer Way, Gilroy, CA 95020 (US). SAHA, Sankalita [IN/US]; Apt. #447, 34 Union Square, Union

City, CA 94587 (US). **ROBISON, Jeremiah** [US/US]; 103 Alta Street, San Francisco, CA 94133 (US).

- (74) Agents: KOKKA, Scott, S. et al.; 703 High Street, Palo Alto, CA 94301 (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.
- (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))

[Continued on next page]

(54) Title: SPEAKER AND LIGHT SOURCE RESPONSIVE TO STATES

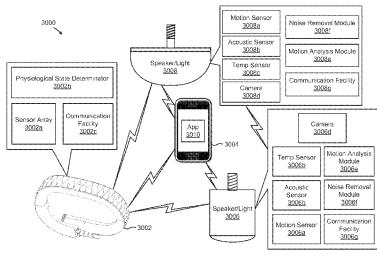


FIG. 30

(57) Abstract: A combination speaker and light source responsive to states of an organism based on sensor data is described, including generating motion sensor data responsive to movement(s) captured using a motion sensor(s), deriving movement data using a motion analysis module operative to determine the movement to be associated with: gesture(s); identity(s); and activity(s), using the motion sensor data, generating acoustic sensor data responsive to sound captured using an acoustic sensor, deriving audio data using a noise removal module operative to subtract a noise signal from the acoustic sensor data, detecting a RF signal associated with a personal device using a communication facility, obtaining state data from the personal device, and determining a desired light characteristic using the state data and one or both of the movement data and the audio data.





 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: 30 October 2014

INTERNATIONAL SEARCH REPORT

International application No. PCT/US14/30841

CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 3/01, 3/03, 3/0488 (2014.01)

CPC - G06F 3/017, 3/01, 3/04883

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

FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): G06F 3/01, 3/03, 3/0488 (2014.01) CPC: G06F 3/017, 3/01, 3/04883

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

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

MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google Patent; Google Scholar; IEEE; Proquest; Korean Patent

Search terms used: motion, sensor, speaker, light, illumination, gesture, activity, audio, acoustic

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 2007/0219059 A1 (SCHWARTZ, M. et al.) September 20, 2007; abstract, figures 2b, 7, paragraphs [0048], [0069], [0073], [0075], [0079], [0085], [0099], [0103], [0104], [0122], [0128]-[0130], [0135]-[0138], [0146]	1, 3, 6-8, 10, 12, 19 2, 4, 5, 9, 11, 13-18
Y	US 7,264,366 B2 (HULSE, G.) September 04, 2007; column 5, lines 31-50, column 6, lines 19-39	2, 4, 5, 13
Y	US 8,116,841 B2 (BLY, M. et al.) February 14, 2012; abstract, column 7, lines 53-65	9
Υ	US 7,647,077 B2 (HUI, S. et al.) January 12, 2010; abstract, column 1, lines 66-67, column 2, lines 1-14, column 4, lines 26-58	11, 14
Y	US 2011/0093820 A1 (ZHANG, Z. et al.) April 21, 2011; figure 4, paragraphs [0016]-[0018], [0022], [0028], [0029], [0084]	15-18

	Furthe	r documents are listed in the continuation of Box C.			
*	Special	categories of cited documents:	"T"	later document published after the international filing date or priority	
"A"		nt defining the general state of the art which is not considered particular relevance	date and not in conflict with the application but cited to understand the principle or theory underlying the invention		
"E"	earlier a filing da	pplication or patent but published on or after the international ste	"X"	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive	
"L"	docume	nt which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other	step when the document is taken alone		
	special	establish the publication date of another citation or other reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is	
"O"	docume means	nt referring to an oral disclosure, use, exhibition or other		combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"P"		nt published prior to the international filing date but later than rity date claimed	"&"	document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report			
24 August 2014 (24.08.2014)			0 4 SEP 2014		
Name and mailing address of the ISA/US		Authorized officer:			
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents		Shane Thomas			
P.O. Box 1450, Alexandria, Virginia 22313-1450			PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774		
Facsimile No. 571-273-3201					