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(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, IS, JP, KE, KG, KM, 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, 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.

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Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i))

[Continued on next page]

(54) Title: MULTIFUNCTION WRISTBAND FOR DISPLAYING SOCIAL INFORMATION

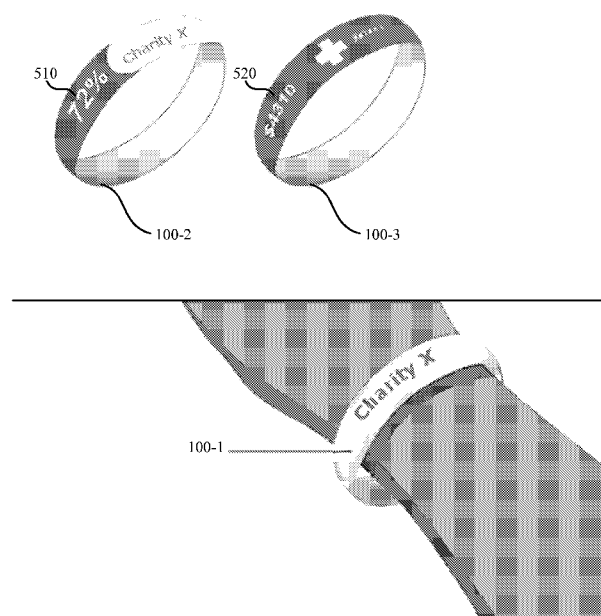


FIG. 5

(57) Abstract: Embodiments of the invention are directed toward a multifunction wristband (or other wearable device) providing a lifestyle display that outwardly displays to other people the interests and social connections of the wearer, which can include data related to music, social media, charities, and more. The multifunction wristband can act either as a stand-alone device or as a companion device to another personal electronic device. Furthermore, it can incorporate a variety of additional useful features.

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

21 November 2013

- *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))*

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/033749

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04M1/05 G06F1/16 H04M1/725
ADD. H04B1/38

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)
H04M G06F H04B

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)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/193779 A1 (WILLIAMS HERBERT [US]) 11 August 2011 (2011-08-11) paragraphs [0036] - [0063]; figures 1-10 -----	1,4,7-9, 14-17, 20, 23-25, 30-32, 36, 38-40,45
X	EP 2 150 031 A1 (LG ELECTRONICS INC [KR]) 3 February 2010 (2010-02-03) paragraphs [0002], [0025] - [0122]; figures 1-21 ----- -/-	1-4,7-9, 13-20, 23-25, 29-34, 36, 38-40, 44,45



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

4 July 2013

Date of mailing of the international search report

12/09/2013

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/033749

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4, 6-9, 13-20, 22-25, 29-36, 38-40, 44, 45

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2013/033749

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/276164 A1 (AMRON SCOTT [US]) 15 December 2005 (2005-12-15) paragraphs [0002] - [0007], [0018] - [0026]; claims 9,10; figures 1-7 -----	1-4,6-9, 13-20, 22-25, 29-36, 38-40, 44,45
A	EP 2 357 548 A2 (PANTECH CO LTD [KR]) 17 August 2011 (2011-08-17) paragraphs [0049] - [0052]; figures 6,7 -----	1-4,6-9, 13-20, 22-25, 29-36, 38-40, 44,45

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2013/033749

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2011193779	A1	11-08-2011	NONE	

EP 2150031	A1	03-02-2010	CN 101640712 A	03-02-2010
			EP 2150031 A1	03-02-2010
			KR 20100012665 A	08-02-2010
			US 2010029327 A1	04-02-2010

US 2005276164	A1	15-12-2005	NONE	

EP 2357548	A2	17-08-2011	CN 102141878 A	03-08-2011
			EP 2357548 A2	17-08-2011
			KR 20110088872 A	04-08-2011
			US 2011187681 A1	04-08-2011

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 6-9, 13-20, 22-25, 29-36, 38-40, 44, 45

Claims 2, 3, 18, 19, 33 and 34 solve the problem of toggling the device from a public to a personal mode by the special technical features of detecting a triggering event upon which the display shows images to be seen by the user . For convenience, claims 1, 4, 7-9, 14-17, 20, 23-25, 30-32, 36, 38-40 and 45 have been grouped together with group 1 and claims 6, 13, 22, 29, 35 and 44 although directed to solve different problems (providing feedback to a user, allowing the user to correctly see the display independently of the orientation of the apparatus), could be searched together with the claims of this group.

2. claims: 5, 21, 37

Claims 5, 21 and 37 solve the problem of e.g. sharing information with similar devices by the special technical features of detecting the proximity of another wearable apparatus and transmitting information related to the displayed images .

3. claims: 10-12, 26-28, 41-43

Claims 10-12, 26-28 and 41-43 solve the problem of allowing payment or donations via the device, by the special technical features of receiving financial data for making a payment to an entity from another apparatus, receiving a user input authorizing the payment; and transmitting payment information.
