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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, 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.

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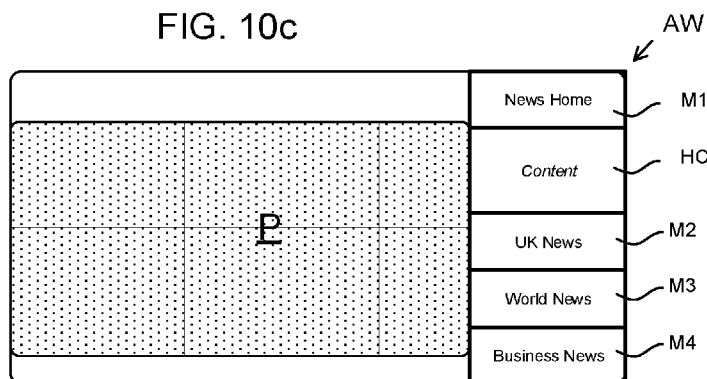
- with international search report (Art. 21(3))
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(88) Date of publication of the international search report:

29 September 2016

(54) Title: INTERACTIVE TELEVISION APPLICATIONS

FIG. 10c



(57) Abstract: An interactive user interface (AW) of an interactive application is provided simultaneously with a programme display (P) within a display area of a television receiver, wherein a proportion of the display area occupied by the interactive user interface (AW) increases in response to user interaction with the interactive user interface (AW).



# INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2016/050142

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. H04N21/431 H04N21/443 H04N21/4782 H04N21/482 H04N21/485  
 ADD.

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)  
 H04N

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. |
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Further documents are listed in the continuation of Box C.       See patent family annex.

\* Special categories of cited documents :

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| <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> | <p>"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</p> <p>"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</p> <p>"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</p> <p>"&amp;" document member of the same patent family</p> |
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| Date of the actual completion of the international search<br><br>22 July 2016 | Date of mailing of the international search report<br><br>04/08/2016 |
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| Name and mailing address of the ISA/<br>European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040,<br>Fax: (+31-70) 340-3016 | Authorized officer<br><br>Beaudet, J |
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2016/050142

| C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT |  |                       |
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| Category*  | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
| X  | EP 1 111 926 A2 (WEBTV NETWORKS INC [US])<br>27 June 2001 (2001-06-27)<br>abstract<br>paragraphs [0011] - [0013], [0027],<br>[0031] - [0034]<br>claims 1-5,8-15,18-20,26<br>-----  | 1,2,7-9,<br>11,12     |
| X  | US 2002/056083 A1 (ISTVAN ANTHONY F [US])<br>9 May 2002 (2002-05-09)<br>abstract<br>figures 3-7,9-10,12-19<br>paragraphs [0005], [0025] - [0027],<br>[0044], [0061] - [0072]<br>claims 1-4,6-7,9-12,14<br>-----  | 1,2,7,9,<br>11,12     |
| X  | EP 2 424 264 A2 (LG ELECTRONICS INC [KR])<br>29 February 2012 (2012-02-29)<br>abstract<br>paragraphs [0043], [0082], [0106] -<br>[0109], [0112] - [1222], [0124],<br>[0128], [0134] - [0142], [0146], [0148]<br>paragraphs [0150] - [0151]<br>claims 1,4-6,8,10-11,13-14<br>figures 5-17<br>-----  | 1-6,9,<br>11,12       |
| A  | SONY: "LCD Digital Colour TV",<br>,<br>29 February 2012 (2012-02-29), pages<br>1-176, XP002756515,<br>Retrieved from the Internet:<br>URL: <a href="http://citenpl.internal.epo.org/wf/web/citenpl/citenpl.html?url=http%3A//pdf.crse.com/manuals/4269995261.pdf">http://citenpl.internal.epo.org/wf/web/citenpl/citenpl.html?url=http%3A//pdf.crse.com/manuals/4269995261.pdf</a><br>page 16<br>----- | 1-7,9,<br>11,12       |
| X  | EP 2 819 406 A1 (HITACHI MAXELL [JP])<br>31 December 2014 (2014-12-31)<br>abstract<br>paragraphs [0005], [0006], [0034],<br>[0037] - [0041], [0053], [0059] -<br>[0062], [0067], [0070], [0075]<br>figures 5,7,8,10,14-18<br>-----   | 1,2,9,<br>11,12       |
| X  | US 2011/037896 A1 (LIN YUNG-CHIH [TW] ET<br>AL) 17 February 2011 (2011-02-17)<br>abstract<br>figures 1,2,4,5<br>paragraphs [0002], [0005] - [0010],<br>[0022] - [0028], [0032], [0036], [0052]<br>- [0053]<br>-----<br>-/--  | 1,2,9,<br>11,12       |

## INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2016/050142

| C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT |  |                       |
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| Category*  | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
| X  | US 2014/325556 A1 (HOANG PETER DUYEN HUNG [CA] ET AL) 30 October 2014 (2014-10-30)<br>figures 4,6-16,18<br>paragraphs [0003], [0019] - [0020],<br>[0034], [0037], [0039], [0043] -<br>[0044], [0050] - [0058], [0064] - [0068]<br>claims 1,3,5-8,16-17,19<br>-----               | 1-12                  |
| X  | US 2012/324507 A1 (WEBER MICHAEL RYAN [US]) 20 December 2012 (2012-12-20)<br>abstract<br>figures 1A-1J,3,6A-6B<br>paragraphs [0038] - [0040], [0042],<br>[0044] - [0049], [0053] - [0055],<br>[0061], [0075] - [0077], [0083] - [0084]<br>-----                                  | 1,2,7-9,<br>11,12     |
| X  | KLUNGSOYR G K: "Service Platforms for<br>Next Generation Interactive Television<br>services",<br>TELEKTRONIKK, TELENOR AS, NORWAY,<br>2 March 2002 (2002-03-02), pages 94-109,<br>XP002353639,<br>ISSN: 0085-7130<br>paragraphs [0005], [05.1], [05.2]<br>figures 10-18<br>----- | 1-4,7,8,<br>11,12     |
| X  | US 2008/244671 A1 (MOON HANNAH Y [US] ET<br>AL) 2 October 2008 (2008-10-02)<br>figures 1,8-9,12-13<br>paragraphs [0016], [0020], [0025],<br>[0051] - [0053], [0057], [0059]<br>claims 5,6,13,14,20-23<br>-----   | 1,8,9,<br>11,12       |

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2016/050142

## 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.:

### 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.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

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

1. claims: 1-7, 9, 11, 12

method of providing an interactive user interface of an interactive application simultaneously with a programme display within a display area of a television receiver, wherein a proportion of the display area occupied by the interactive user interface increases, and a proportion of the display area occupied by the programme display decreases, in response to user interaction with the interactive user interface.

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2. claims: 8, 10

Method of providing an interactive user interface within a display area of a television receiver, wherein an interactive application is selected by the user from a menu of interactive applications superimposed on a programme display within the television display area, and selection of the interactive application causes the interactive user interface of the selected application to be displayed simultaneously with the programme display within the display area.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2016/050142

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date   |            |
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