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(54) Title: SYSTEM FOR MUSICALLY INTERACTING AVATARS

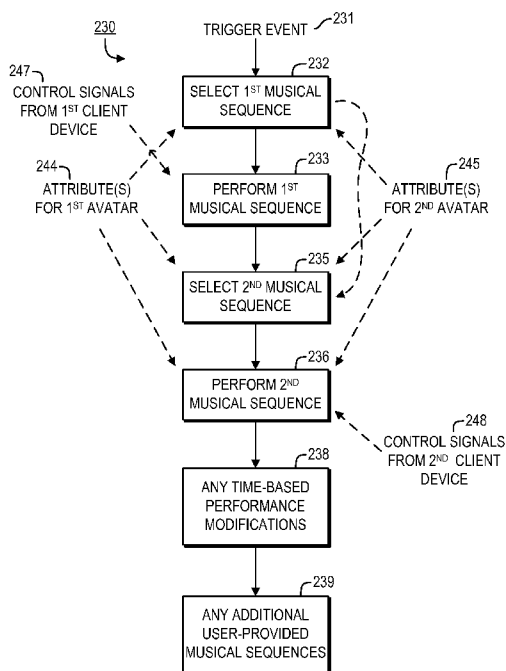


FIG. 8

(57) Abstract: Provided are, among other things, systems, methods and techniques for avatars to musically interact with each other. In one representative embodiment, a server is configured to host a virtual environment and various client devices communicate with the server over an electronic network, with each such client device configured to interact within the virtual environment through a corresponding avatar. A first client device accepts commands from a first user and, in response, communicates corresponding information to the server causing a modification of any of a first set of user-customizable visual characteristics of a first avatar that represents the first user. Similarly, a second client device accepts commands from a second user and, in response, communicates corresponding information to the server causing a modification of any of a second set of user-customizable visual characteristics of a second avatar that represents the second user. The first avatar performs a musical sequence that is based on current settings for: the first set of user-customizable visual characteristics and the second set of user-customizable visual characteristics.



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INTERNATIONAL SEARCH REPORT

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PCT/US2009/059571**A. CLASSIFICATION OF SUBJECT MATTER****G06Q 50/00(2006.01)i, G06T 13/00(2006.01)i, G06T 15/70(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)

G06Q 50/00; G06T 13/00; G06T 15/70; G06F 15/00; G06F 17/30; G06F 3/048; G10H 1/00; G10L 11/00

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

(Chinese Patents and application for patent)

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

eKOMPASS(KIPO internal) & Keywords: avatar, music, interaction

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2007-0260984 A1 (MARKS, R. et al.) 08 November 2007 See abstract, figures 3-4, 5A, 10, paragraphs [0008]-[0060] and claims 1, 9.	1-18
A	KR 10-2007-0025384 A (IRCUBE CO., LTD.) 08 March 2007 See abstract, pages 3-7, figures 1-3b, 5c, 7 and claims 1, 7-8, 10-11.	1-18
A	KR 10-0807768 B1 (YOON, J. H. et al.) 07 March 2008 See abstract, claim 1, pages 5-9 and figure 4.	1-18
A	US 6466213 B2 (BICKMORE, T. W. et al.) 15 October 2002 See abstract, figures 2, 6, 13-14 and column 2 lines 11-53.	1-18
A	JP 11-120197 A (MATSUSHITA ELECTRIC IND CO., LTD.) 30 April 1999 See abstract, claim 1 and paragraphs [0006]-[0032] and figures 1-3.	1-18
A	JP 2008-210382 A (MATSUSHITA ELECTRIC IND CO., LTD.) 11 September 2008 See abstract, claims 1-2, paragraphs [0050]-[0052] and figures 4, 7.	1-18



Further documents are listed in the continuation of Box C.



See patent family annex.

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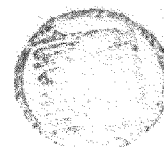
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Information on patent family members

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PCT/US2009/059571

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2007-0260984 A1	08.11.2007	EP 2016562 A2 JP 2009-536406 T US 2007-268312 A1 US 2008-001951 A1 WO 2007-130691 A2 WO 2007-130691 A3 WO 2007-130693 A2 WO 2007-130693 A3	21.01.2009 08.10.2009 22.11.2007 03.01.2008 15.11.2007 20.11.2008 15.11.2007 06.03.2008
KR 10-2007-0025384 A	08.03.2007	None	
KR 10-0807768 B1	07.03.2008	None	
US 6466213 B2	15.10.2002	JP 11-312159 A US 2001-0019330 A1 US 2003-0206170 A1 US 7006098 B2	09.11.1999 06.09.2001 06.11.2003 28.02.2006
JP 11-120197 A	30.04.1999	None	
JP 2008-210382 A	11.09.2008	None	