

Exhibit 3



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Strober

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(54) **PLAY CONTROL OF CONTENT ON A DISPLAY DEVICE**

(56) **References Cited**

U.S. PATENT DOCUMENTS

(71) Applicant: **Touchstream Technologies, Inc.**,
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4,855,842 A 8/1989 Hayes et al.

5,613,137 A 3/1997 Bertram et al.

(Continued)

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FOREIGN PATENT DOCUMENTS

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CN 101534449 A 9/2009

CN 101577650 A 11/2009

(Continued)

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OTHER PUBLICATIONS

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"AnyRemote", Retrieved from Internet URL: <http://anyremote.sourceforge.net/>, pp. 2 (2013).

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G06F 3/01 (2006.01)
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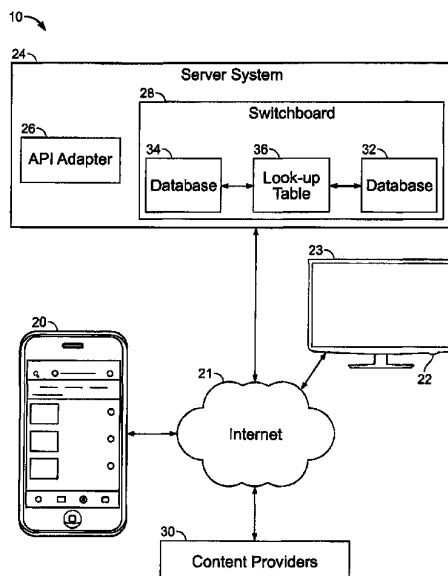
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CPC **G06F 16/74** (2019.01); **G06F 9/452** (2018.02); **G06F 16/951** (2019.01)

(58) **Field of Classification Search**
CPC G06F 16/74; G06F 9/452; G06F 16/951
See application file for complete search history.

(57) **ABSTRACT**

A system for controlling playback of various types of content includes a first computing device that provides a unique identifier to a second computing device to establish an association there between. By virtue of the established association, the second computing device can send one or more messages to the first computing device, the one or more messages referencing a piece of content associated with a first media playing element of a plurality of media playing elements, and one or more commands corresponding to the first media playing element. The first computing device can select the first media playing element based on the received one or more messages, and control how the first media playing element plays the referenced piece of content utilizing the one or more commands.

20 Claims, 9 Drawing Sheets



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continuation of application No. 13/532,546, filed on Jun. 25, 2012, now Pat. No. 9,767,195, which is a continuation-in-part of application No. 13/157,821, filed on Jun. 10, 2011, now Pat. No. 8,904,289.

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(51) **Int. Cl.**
G06F 16/951 (2019.01)
G06F 9/451 (2018.01)

(56) References Cited

U.S. PATENT DOCUMENTS

5,875,311 A	2/1999	Bertram et al.	8,761,351 B1	6/2014	Daly et al.
5,878,311 A	3/1999	Ichinokawa	8,761,792 B2	6/2014	Sennett et al.
6,181,713 B1	1/2001	Patki et al.	8,762,240 B2	6/2014	Sogo et al.
6,252,889 B1	6/2001	Patki et al.	8,762,548 B1	6/2014	Kessel et al.
6,756,965 B2	6/2004	Combs et al.	8,763,081 B2	6/2014	Bogdanovic et al.
6,978,424 B2	12/2005	Safadi	8,782,262 B2	7/2014	Collart et al.
7,058,356 B2	6/2006	Slotznick	8,782,528 B2	7/2014	Strober
7,088,823 B2	8/2006	Fetkovich	8,875,180 B2	10/2014	Demchenko et al.
7,114,173 B2	9/2006	Urdang et al.	8,880,491 B2	11/2014	Morris
7,330,875 B1	2/2008	Parasnis et al.	9,071,792 B2	6/2015	Alsina et al.
7,424,718 B2	9/2008	Dutton	9,148,756 B2	9/2015	Filipov
7,433,922 B2	10/2008	Engstrom	9,185,171 B2	11/2015	Pahlavan et al.
7,440,972 B2	10/2008	Oetzel	9,420,025 B2	8/2016	Park
7,453,454 B2	11/2008	Allen et al.	9,720,887 B2	8/2017	Pappu et al.
7,466,823 B2	12/2008	Vestergaard et al.	2002/0034193 A1	3/2002	Patki et al.
7,509,588 B2	3/2009	Van Os et al.	2002/0075332 A1	6/2002	Geilfuss, Jr. et al.
7,614,070 B2	11/2009	Urdang et al.	2002/0083147 A1	6/2002	Ripperger
7,689,931 B2	3/2010	Koga et al.	2002/0120666 A1	8/2002	Landsman et al.
7,769,827 B2	8/2010	Girouard et al.	2002/0129102 A1	9/2002	Landsman et al.
7,774,708 B2	8/2010	Bell et al.	2002/0133518 A1	9/2002	Landsman et al.
7,814,144 B2	10/2010	Koyama et al.	2002/0146122 A1	10/2002	Vestergaard et al.
7,835,505 B2	11/2010	Toyama et al.	2002/0198778 A1	12/2002	Landsman et al.
7,849,485 B2	12/2010	Paik et al.	2003/0004804 A1	1/2003	Landsman et al.
7,878,904 B2	2/2011	Machiro	2003/0005000 A1	1/2003	Landsman et al.
7,949,606 B1	5/2011	Sweet	2003/0018885 A1	1/2003	Landsman et al.
7,956,846 B2	6/2011	Ording et al.	2003/0023488 A1	1/2003	Landsman et al.
8,060,631 B2	11/2011	Collart et al.	2003/0028565 A1	2/2003	Landsman et al.
8,086,679 B2	12/2011	Nobori et al.	2003/0112258 A1	6/2003	Dietz et al.
8,171,507 B2	5/2012	Hironaka et al.	2003/0112268 A1	6/2003	Wettach
8,230,360 B2	7/2012	Ma et al.	2003/0142127 A1	7/2003	Markel
8,238,887 B2	8/2012	Filipov	2003/0182663 A1	9/2003	Gudorf et al.
8,250,608 B2	8/2012	Hayes et al.	2004/0008972 A1	1/2004	Haken
8,255,968 B2	8/2012	Louie et al.	2004/0049743 A1	3/2004	Bogward
8,316,308 B2	11/2012	Sherman et al.	2004/0088728 A1	5/2004	Shimizu
8,344,870 B2	1/2013	Evans et al.	2004/0268224 A1	12/2004	Balkus et al.
8,356,251 B2	1/2013	Strober	2004/0268451 A1	12/2004	Robbin et al.
8,373,660 B2	2/2013	Pallakoff	2005/0034151 A1	2/2005	Abramson
8,402,494 B1	3/2013	Hu et al.	2005/0144305 A1	6/2005	Fegan, II et al.
8,418,084 B1	4/2013	Tischer	2005/0149970 A1	7/2005	Fairhurst et al.
8,433,812 B2	4/2013	Mahajan et al.	2006/0062544 A1	3/2006	Southwood et al.
8,572,488 B2	10/2013	Phillips et al.	2006/0083194 A1	4/2006	Dhirmaj et al.
8,614,625 B2	12/2013	Alsina et al.	2006/0098624 A1	5/2006	Morgan et al.
8,620,284 B2	12/2013	Filipov	2006/0101098 A1	5/2006	Morgan et al.
8,659,553 B1	2/2014	Chan et al.	2006/0203758 A1	9/2006	Tee et al.
8,671,440 B2	3/2014	Damola et al.	2006/0263038 A1	11/2006	Gilley
8,738,536 B2	5/2014	Strom et al.	2006/0265657 A1	11/2006	Gilley
8,738,737 B2	5/2014	Baldini et al.	2007/0050054 A1	3/2007	Sambandam Guruparan et al.
8,739,074 B2	5/2014	Kinoshita	2007/0052868 A1	3/2007	Chou et al.
8,743,284 B2	6/2014	Russell et al.	2007/0055986 A1	3/2007	Gilley et al.
8,744,434 B2	6/2014	Funderburk et al.	2007/0083540 A1	4/2007	Gundla et al.
8,745,228 B2	6/2014	Beckert et al.	2007/0094408 A1	4/2007	Gundla et al.
8,745,388 B2	6/2014	Kanungo	2007/0112785 A1	5/2007	Murphy et al.
8,751,159 B2	6/2014	Hall	2007/0136778 A1	6/2007	Birger et al.
8,751,520 B1	6/2014	Bhattacharjee et al.	2007/0150963 A1	6/2007	Lee et al.
8,751,793 B2	6/2014	Ginter et al.	2007/0152978 A1	7/2007	Kocienda et al.
8,752,016 B2	6/2014	Hernandez Porras et al.	2007/0152980 A1	7/2007	Kocienda et al.
8,755,919 B2	6/2014	Pyle	2007/0155506 A1	7/2007	Malik
8,756,333 B2	6/2014	Jannink et al.	2007/0156855 A1	7/2007	Johnson
8,756,505 B2	6/2014	Gonze et al.	2007/0202923 A1	8/2007	Jung et al.
			2007/0288715 A1	12/2007	Boswell et al.
			2007/0294621 A1	12/2007	Hansen et al.
			2008/0008439 A1	1/2008	Liu et al.
			2008/0028037 A1	1/2008	Moyer et al.
			2008/0034394 A1	2/2008	Jacobs et al.
			2008/0040758 A1	2/2008	Beetcher et al.
			2008/0077526 A1	3/2008	Arumugam
			2008/0104267 A1	5/2008	Dawson
			2008/0126943 A1	5/2008	Parasnis et al.
			2008/0140849 A1	6/2008	Collazo
			2008/0155600 A1	6/2008	Klappert et al.
			2008/0162670 A1	7/2008	Chapweske et al.
			2008/0178198 A1	7/2008	Gaub
			2008/0187279 A1	8/2008	Gilley et al.
			2008/0189617 A1	8/2008	Covell et al.
			2008/0250190 A1	10/2008	Johnson
			2008/0267369 A1	10/2008	Parlamas et al.
			2008/0270881 A1	10/2008	Meyer et al.
			2008/0301737 A1	12/2008	Hjelmeland Almas et al.
			2009/0049373 A1	2/2009	Sharma et al.

US 11,086,934 B2

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(56)

References Cited

U.S. PATENT DOCUMENTS

2009/0077467	A1	3/2009	Adappa et al.	
2009/0100477	A1	4/2009	Jeffs	
2009/0108057	A1	4/2009	Mu et al.	
2009/0150553	A1	6/2009	Collart et al.	
2009/0164641	A1	6/2009	Rogers et al.	
2009/0172780	A1 *	7/2009	Sukeda	H04N 21/4227 726/3
2009/0193466	A1	7/2009	Ehreth et al.	
2009/0228919	A1	9/2009	Zott et al.	
2009/0248802	A1 *	10/2009	Mahajan	H04L 65/4015 709/204
2009/0254827	A1	10/2009	Gonze et al.	
2009/0259944	A1	10/2009	Wu	
2009/0259969	A1	10/2009	Pallakoff	
2009/0282470	A1	11/2009	Yang et al.	
2010/0027974	A1	2/2010	Ansari	
2010/0081375	A1	4/2010	Rosenblatt et al.	
2010/0094728	A1	4/2010	Denning et al.	
2010/0094900	A1	4/2010	Hughes, Jr.	
2010/0137028	A1	6/2010	Farris et al.	
2010/0138746	A1	6/2010	Zarom	
2010/0138780	A1	6/2010	Marano et al.	
2010/0174993	A1	7/2010	Pennington et al.	
2010/0198860	A1	8/2010	Burnett et al.	
2010/0205628	A1	8/2010	Davis et al.	
2010/0208136	A1	8/2010	Castano	
2010/0241699	A1	9/2010	Muthukumarasamy et al.	
2010/0257569	A1	10/2010	O'Hanlon	
2010/0265939	A1	10/2010	Parlamas et al.	
2010/0281042	A1	11/2010	Windes et al.	
2010/0283586	A1	11/2010	Ikeda et al.	
2010/0313135	A1	12/2010	Johnson et al.	
2010/0325552	A1	12/2010	Sloo et al.	
2011/0007901	A1	1/2011	Ikeda et al.	
2011/0014972	A1	1/2011	Herrmann et al.	
2011/0030020	A1	2/2011	Halttunen	
2011/0032870	A1	2/2011	Kumar	
2011/0035692	A1	2/2011	Sandone et al.	
2011/0060998	A1	3/2011	Schwartz et al.	
2011/0084900	A1	4/2011	Jacobsen et al.	
2011/0090898	A1	4/2011	Patel et al.	
2011/0107227	A1	5/2011	Rempell et al.	
2011/0125594	A1	5/2011	Brown et al.	
2011/0131607	A1	6/2011	Thomas et al.	
2011/0137729	A1	6/2011	Weisman et al.	
2011/0138354	A1	6/2011	Hertenstein et al.	
2011/0156879	A1	6/2011	Matsushita et al.	
2011/0161396	A1	6/2011	Filbrich et al.	
2011/0202466	A1	8/2011	Carter	
2011/0214148	A1	9/2011	Gossweiler, III et al.	
2011/0228768	A1	9/2011	Gelter et al.	
2011/0231265	A1	9/2011	Brown et al.	
2011/0231565	A1	9/2011	Gelter et al.	
2011/0231566	A1	9/2011	Gelter et al.	
2011/0267981	A1	11/2011	Davies	
2011/0289419	A1	11/2011	Yu et al.	
2011/0296454	A1	12/2011	Xiong et al.	
2011/0296465	A1	12/2011	Krishnan et al.	
2011/0314386	A1	12/2011	Jeong et al.	
2012/0054616	A1	3/2012	Mittal	
2012/0059875	A1	3/2012	Clark	
2012/0059876	A1	3/2012	Chinta et al.	
2012/0072846	A1	3/2012	Curtis	
2012/0102209	A1	4/2012	Fok Ah Chuen et al.	
2012/0110074	A1	5/2012	Getchius	
2012/0110464	A1	5/2012	Chen et al.	
2012/0114313	A1	5/2012	Phillips et al.	
2012/0130971	A1	5/2012	Morris	
2012/0166560	A1	6/2012	Nobori et al.	
2012/0182994	A1	7/2012	Dec et al.	
2012/0185887	A1	7/2012	Newell	
2012/0192225	A1	7/2012	Harwell et al.	
2012/0239218	A1	9/2012	Forbes, Jr.	
2012/0254931	A1	10/2012	Oztascent et al.	
2012/0272148	A1	10/2012	Strober	

2013/0014142	A1	1/2013	Newell
2013/0124759	A1	5/2013	Strober
2013/0250181	A1	9/2013	Zhang et al.
2014/0033198	A1	1/2014	Umapathy et al.
2016/0241912	A1	8/2016	McCarthy et al.

FOREIGN PATENT DOCUMENTS

CN	101778198	A	7/2010
CN	101815073	A	8/2010
EP	2 175 607	A1	4/2010
JP	2004-356695	A	12/2004
JP	2006-525771	A	11/2006
WO	2004/100500	A2	11/2004
WO	2007078745	A1	7/2007
WO	2008/070050	A2	6/2008
WO	2008108718	A1	9/2008

OTHER PUBLICATIONS

"Best way to generate Random, Unique Session ID's", vBulletin, Nov. 19, 2011, p. 1.

"Best way to generate Random, Unique ID's", vBulletin, Internet Archive Wayback Machine, on Nov. 19, 2011, p. 1 (Jan. 2009).

"Control television phone", Retrieved from Internet URL: <http://www.bing.com/search?q=control+television+phone&go=Submit+Query&q=bs&for>, Feb. 6, 2014, pp. 3.

"Control television server phone", Retrieved from Internet URL: <http://www.bing.com/search?q=control+television+server+phone&q=s&n&form=QB.LH&pq>, Feb. 6, 2014, p. 1.

"Mobile device server display device", Retrieved from Internet URL: <http://www.ask.com/web?q=mobile+device+server+display+device&qsrc=0&o=0&l=dir>, on Jul. 30, 2012, pp. 2.

"Mashable—10 Mobile Apps to Control Your TV", Retrieved from Internet URL: <http://mashable.com/2012/11/28/apps-control-tv/>, Nov. 28, 2012, pp. 102.

"Mobile Phone Television Remote Control", Retrieved from Internet URL: http://www.fileguru.com/apps/mobile_phone_television_remote_control_app, pp. 5 (2013).

"Mobile server television control", Retrieved from Internet URL: <http://www.bing.com/search?q=mobile+server+television+control&q=s&n&form=QB.LH&p>, Jun. 26, 2014, p. 1.

"Mobile server television control media player", Retrieved from Internet URL: <http://www.bing.com/search?q=mobile+server+television+control+media+player&q=s&n&f>, Jun. 26, 2014, p. 1.

"Phone Server television control", Retrieved from Internet URL: <http://www.bing.com/search?q=phone+server+television+control&q=s&n&form=QBRE&p>, Jun. 26, 2014, p. 1.

"Phone server television control media player", Retrieved from Internet URL: <http://www.bing.com/search?q=phone+server+television+control+media+player&q=s&n&f>, Jun. 26, 2014, p. 1.

"Session identifier random", Ask.com, Nov. 19, 2011, p. 1.

"Session cookie", Webopedia Computer Dictionary, Nov. 19, 2011, pp. 3.

"Snapstick", Snapstick—Home, Retrieved from Internet URL: <http://www.snapstick.com/>, on Dec. 12, 2019, pp. 2, (Mar. 2011).

"Smartphone Remote Control Apps Boxee Support", Retrieved from Internet URL: <http://support.boxee.tv/entries/20771358-smartphone-remote-control-apps>, on Feb. 6, 2014, pp. 2 (Dec. 2011).

"Using AirPlay", Retrieved from Internet URL: <https://web.archive.org/web/20101129073434/http://support.apple.com/kb/HT4437>, pp. 2 (2011).

Using the Play to feature to stream media, Retrieved from the Internet URL: <http://windows.microsoft.com/en-US/windows7/using-the-play-to-feature-to-stream-media>, pp. 3 (Nov. 2011).

"User session", Webopedia Computer Dictionary, Nov. 19, 2011, pp. 3.

"Web identifier", Webopedia: Online Computer Dictionary for Internet Terms and Technical Support, Retrieved from Internet URL: <http://www.webopedia.com/gsearch?results?cx:::partner-pub-8768004398756183%3A676>, on Nov. 19, 2011, pp. 3.

US 11,086,934 B2

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(56)

References Cited

OTHER PUBLICATIONS

"You Tube—Leanback", Retrieved from Internet URL : <https://www.youtube.com/watch?v=bITse42LpKA>, p. 1 (2010).

"Yahoo!7 TV Guide ", Retrieved from the Internet URL : <http://itunes.apple.com/au/app/yahoo-7-tv-guide/id424719922?mt=8>, pp. 2 (2011).

Cheng, J., "Stream AirPlay video to regular TV? Apple might make it happen", Retrieved from Internet URL : <http://arstechnica.com/apple/news/2011/03/stream-airplay-video-to-a-regular-tv-apple-might-make-it-happen/>, on Dec. 12, 2019, pp. 5 (Mar. 2011).

Dolcourt, J., et al., "Snapstick takes on Apple TV, Google TV," Retrieved from Internet URL : <https://www.cnet.com/news/snapstick-takes-on-apple-tv-google-tv/>, Dec. 9, 2010, pp. 3.

Fallahkhair, S., et al., "Dual Device User interface Design for Ubiquitous Language Learning: Mobile Phone and Interactive Television {iTV}", Proceedings of the 2005 IEEE International Workshop on Wireless and Mobile Technologies in Education, 2005 , pp. 8.

Hu, C., et al., "Mobile Media Content Sharing in UPnP-Based Home Network Environment", Journal of Information Science and Engineering 24, pp. 1753-1769 (2008).

Hachman, M., "Snapstick's Media Streaming App/Box: Hands on", Retrieved from Internet URL : <https://uk.pcmag.com/news/102838/snapsticks-media-streaming-appbox-hands-on>, on Dec. 12, 2019, pp. 2 (Jan. 2011).

Paul, I., "Hands on: YouTube Leanback", PCWORLD, Retrived from Internet URL : http://www.pcworld.com/article/200769/hands_on_youtube_leanback.html, pp. 6 (Jul. 2010).

Notice of Allowance dated Sep. 3, 2020 in U.S. Appl. No. 15/687,249, 5 pages.

Shaivitz, M., "The Web to Your TV, With a Flick of a Wrist? Slapstick Says Yes", <http://techcocktail.com/the-web-to-our-tv-with-a-flick-of-a-wrist-slapstick-says-yes-2010-12>, 2pages, (Dec. 10, 2010) (PDF not available).

Non-Final Office Action dated Feb. 2, 2021 in U.S. Appl. No. 15/687,249, 9 pages.

* cited by examiner



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