US 20140327677A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2014/0327677 A1

(43) Pub. Date: Nov. 6, 2014

Walker

(54) METHOD AND SYSTEM FOR PROVIDING A GRAPHICAL REPRESENTATION ON A SECOND SCREEN OF SOCIAL MESSAGES RELATED TO CONTENT ON A FIRST SCREEN

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(21) Appl. No.: **14/322,566**

(22) PCT Filed: **Dec. 27, 2012**

(86) PCT No.: **PCT/US2012/071811**

§ 371 (c)(1),
(2), (4) Date: **Jul. 2, 2014**

Related U.S. Application Data

(60) Provisional application No. 61/584,134, filed on Jan. 6, 2012.

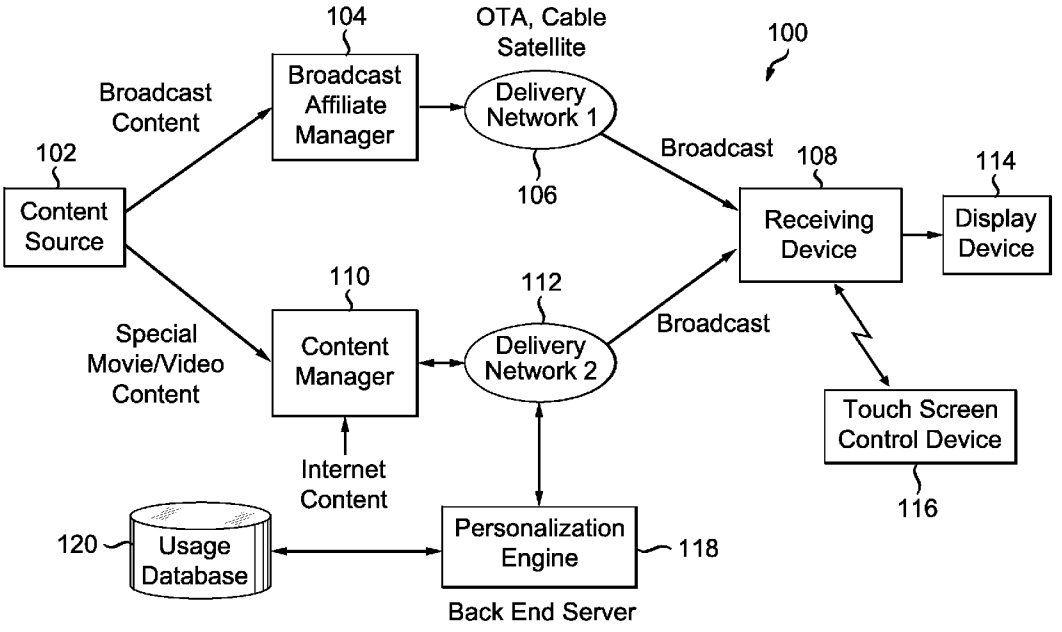
Publication Classification

(51) **Int. Cl.**
H04L 12/26 (2006.01)
G06T 11/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H04L 43/045*** (2013.01); ***G06T 11/206*** (2013.01); *G06T 2215/16* (2013.01)
USPC **345/440**

(57) **ABSTRACT**

The present disclosure is directed towards a method and system method for providing a graphical representation of social messages on a second screen relating to content displayed on a first screen. The disclosure involves monitoring social media for one or more messages relating to content being displayed on a first screen, processing the one or more message relating to content being displayed on the first screen to associate messages with a time segment of the content being displayed on the first screen, and providing a graphical representation of the one or more social messages, associated with one or more time segments of the content being displayed on the first screen, on the second screen.



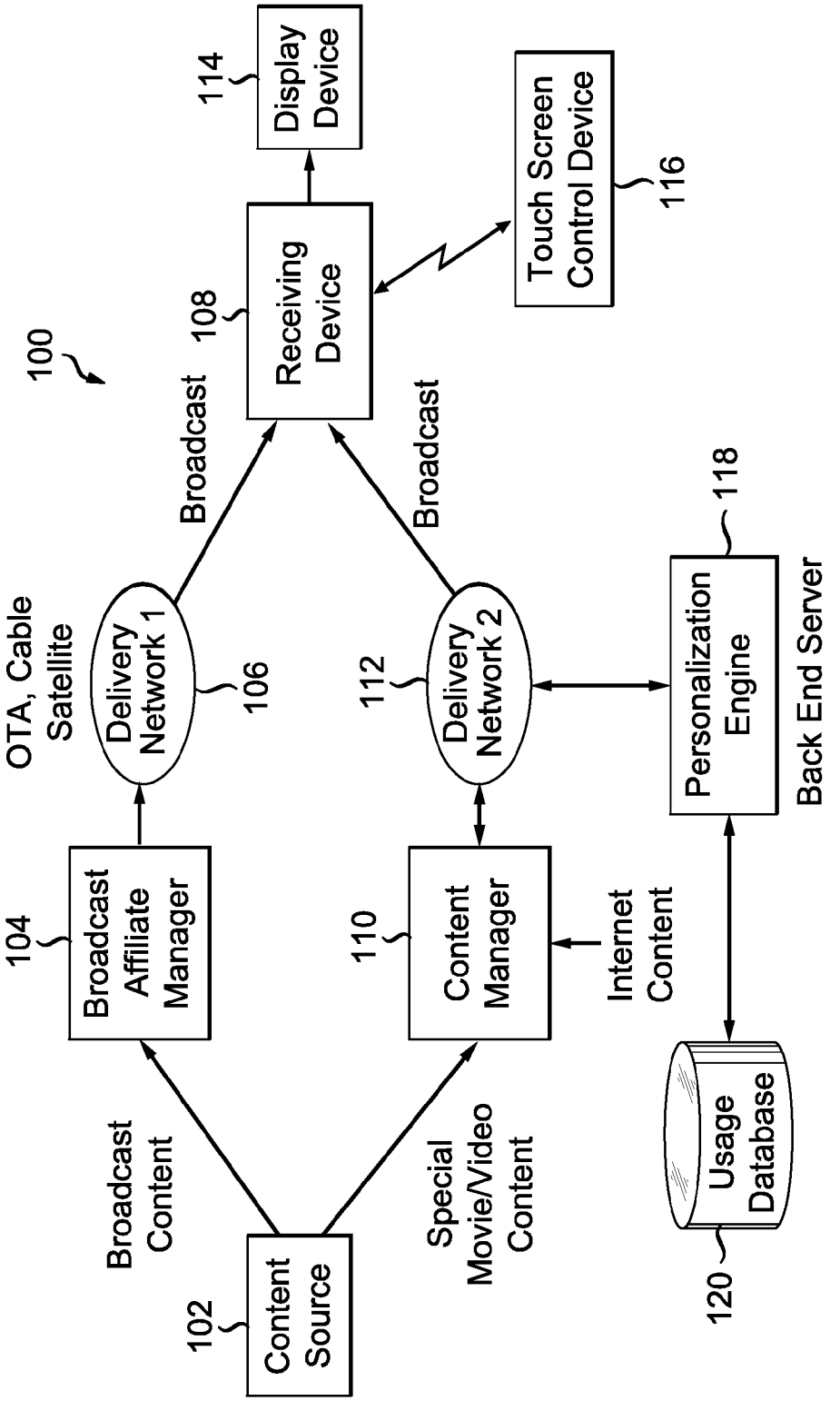

100
Content Source
102
Broadcast Content
Special Movie/Video Content
Broadcast Affiliate Manager
104
Content Manager
110
Internet Content
OTA, Cable Satellite
Delivery Network 1
106
Delivery Network 2
112
Broadcast
Broadcast
Receiving Device
108
Display Device
114
Touch Screen Control Device
116
Personalization Engine
118
Back End Server
Usage Database
120

FIG. 1

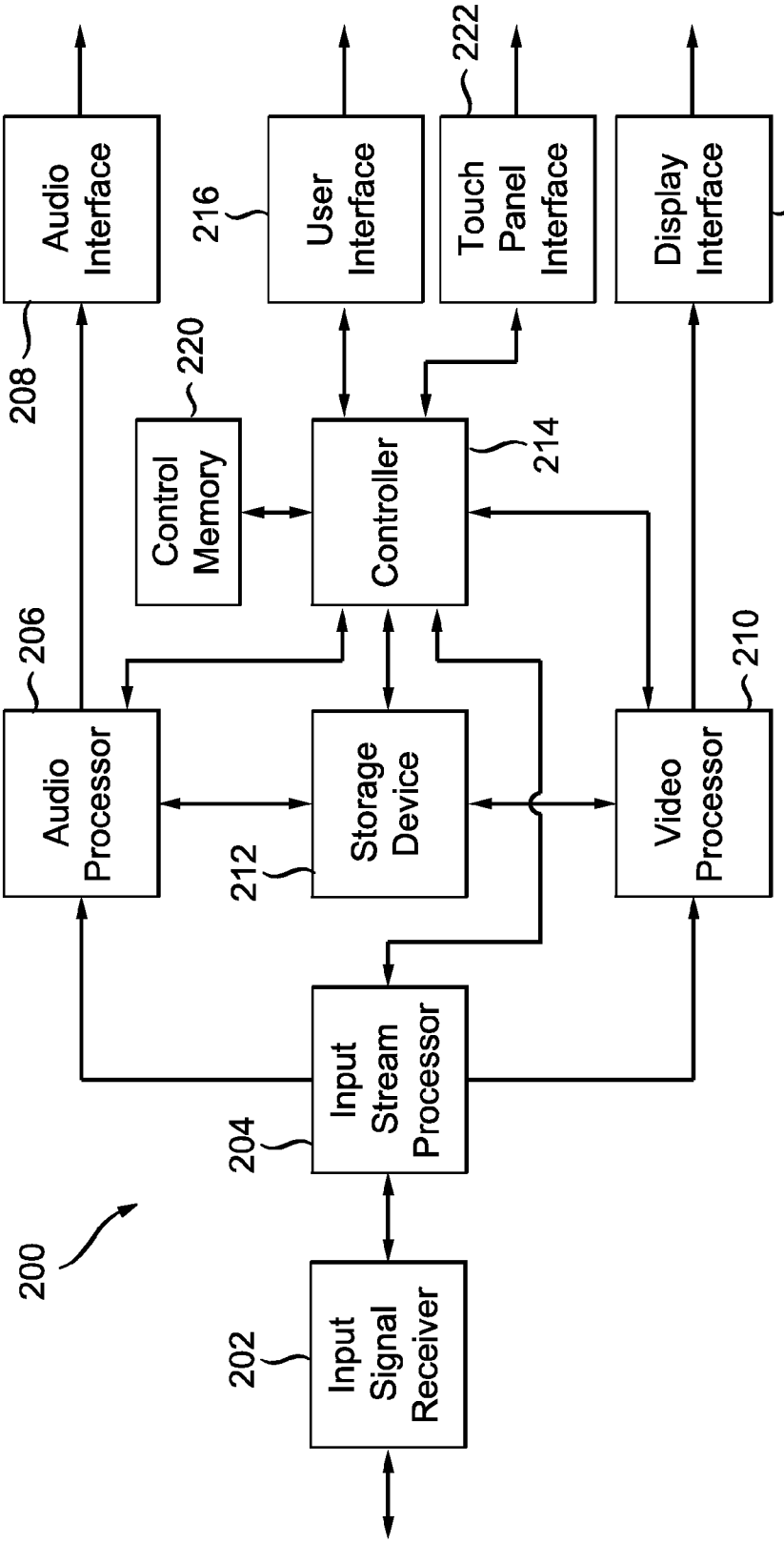

Audio Interface
208
User Interface
216
Touch Panel Interface
222
Display Interface
218
Control Memory
220
Controller
214
Audio Processor
206
Storage Device
212
Video Processor
210
Input Stream Processor
204
Input Signal Receiver
202
200

FIG. 2

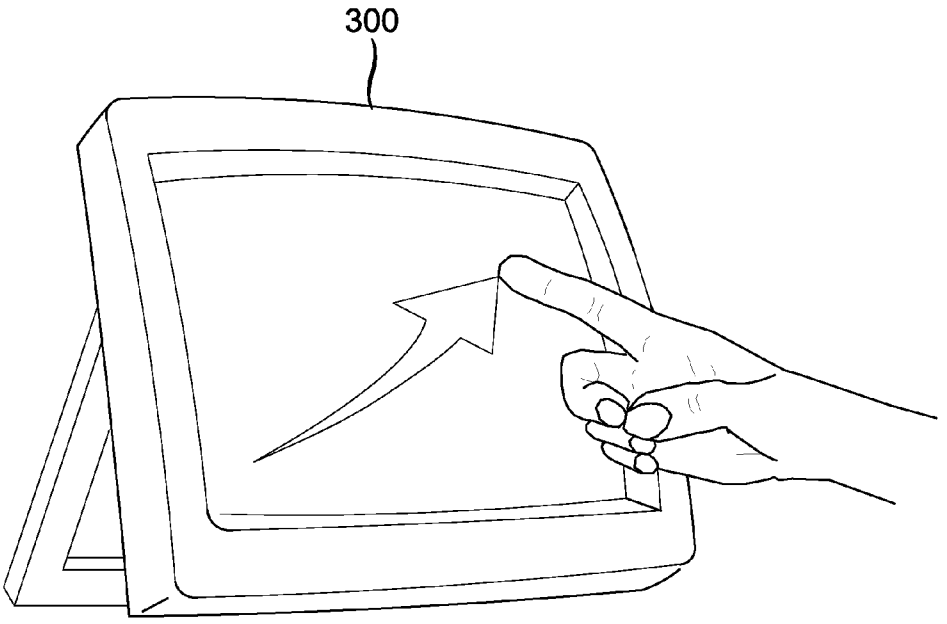

300

FIG. 3

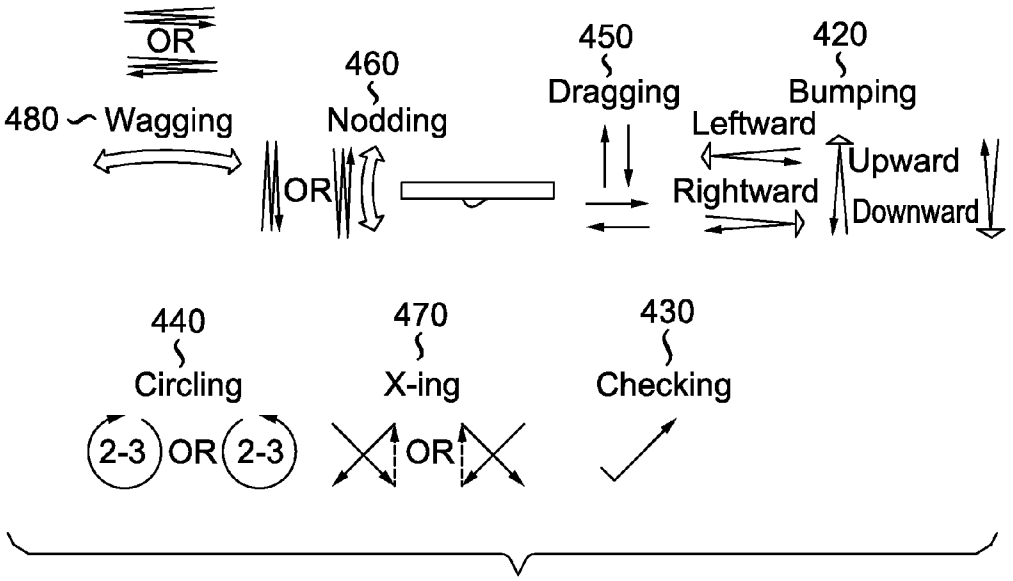

OR
480
Wagging
460
Nodding
OR
450
Dragging
420
Bumping
Leftward
Rightward
Upward
Downward
440
Circling
2-3
OR
2-3
470
X-ing
OR
430
Checking

FIG. 4

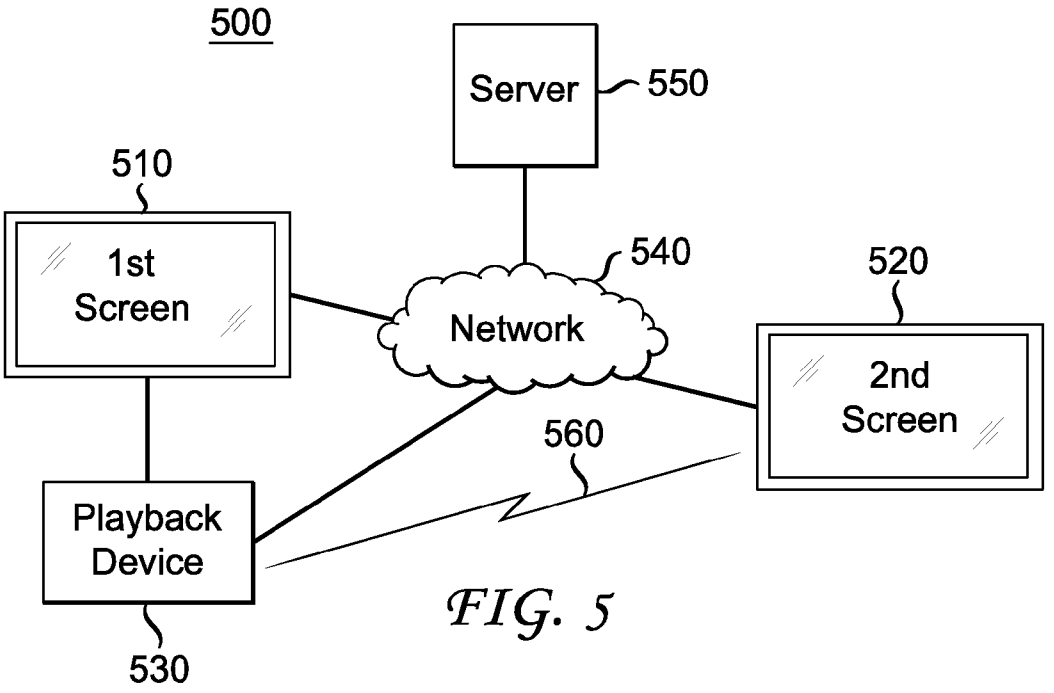

500
Server
550
510
1st Screen
540
Network
520
2nd Screen
560
Playback Device
530

FIG. 5

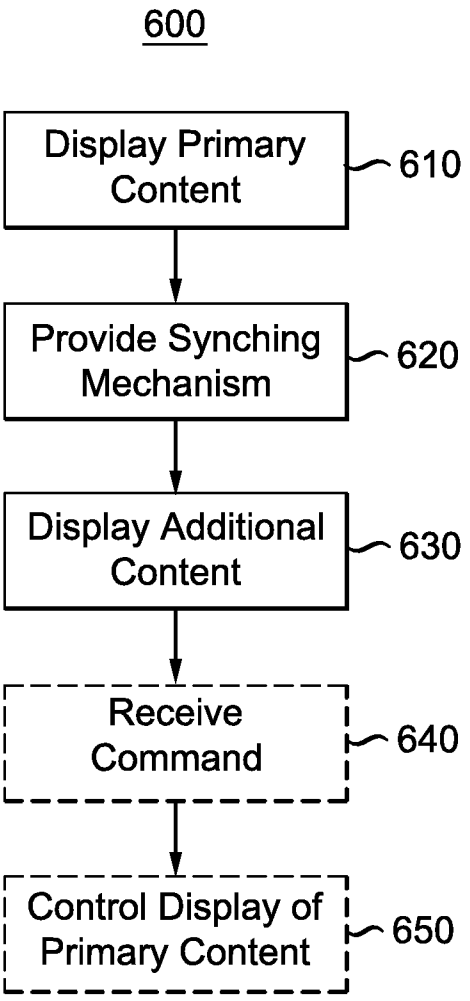

600
Display Primary Content
610
Provide Synching Mechanism
620
Display Additional Content
630
Receive Command
640
Control Display of Primary Content
650

FIG. 6

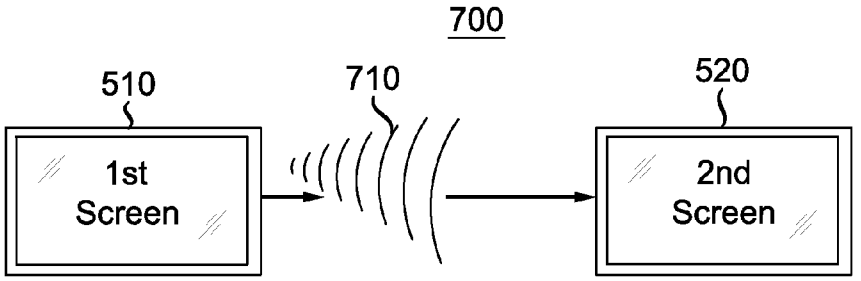
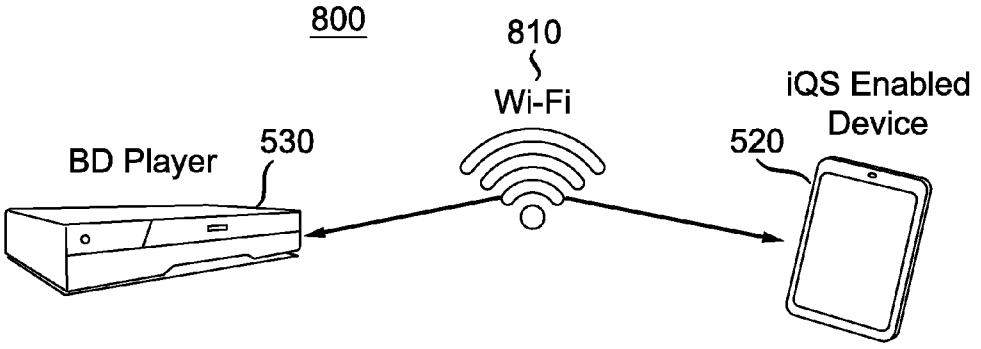


FIG. 7



1. iPad broadcasts security key using mDNS (UDP socket based communication)
2. BD Player authenticates iPad and responds with IP and PORT
3. iPad closes all UDP communication and opens direct TCP socket connection with BD Player
4. Connection has been established for secure two-way communication between iPad and BD Player

FIG. 8

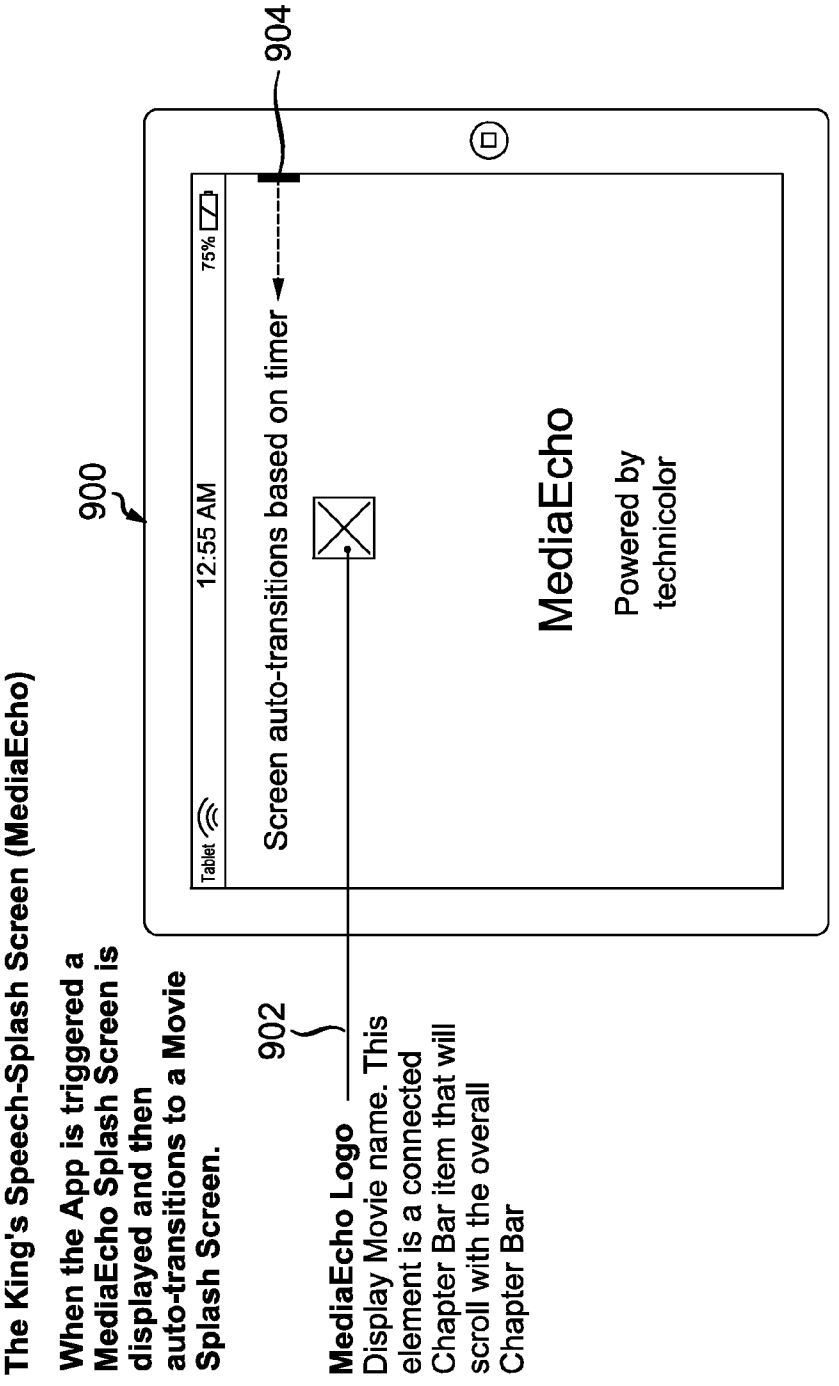

The King's Speech-Splash Screen (MediaEcho)
When the App is triggered a MediaEcho Splash Screen is displayed and then auto-transitions to a Movie Splash Screen.
900
902
MediaEcho Logo
Display Movie name. This element is a connected Chapter Bar item that will scroll with the overall Chapter Bar
904
Screen auto-transitions based on timer
Tablet
12:55 AM
75%
MediaEcho
Powered by technicolor

FIG. 9A

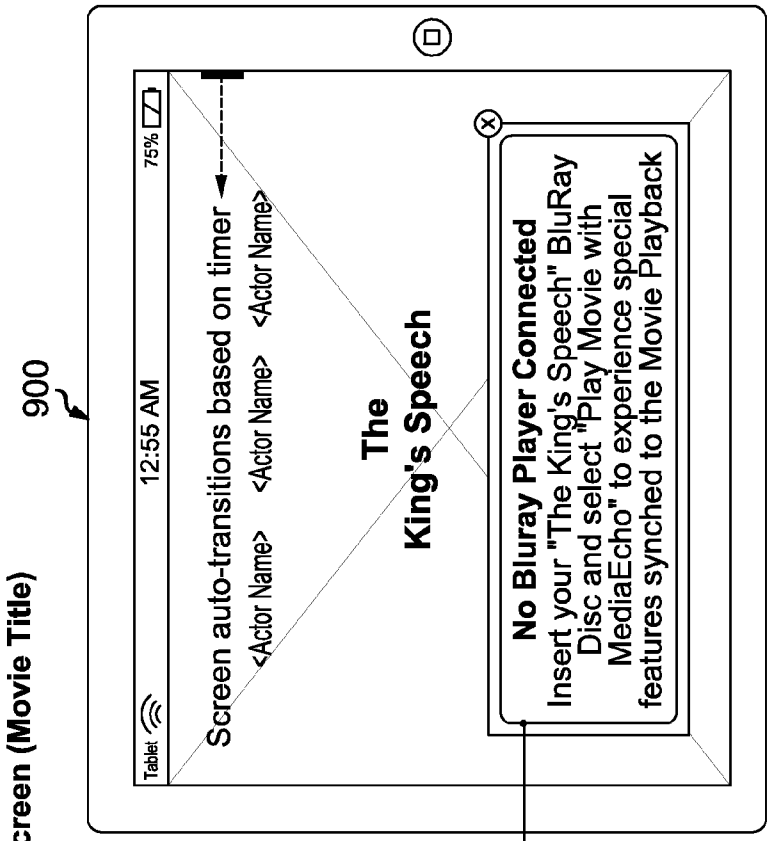
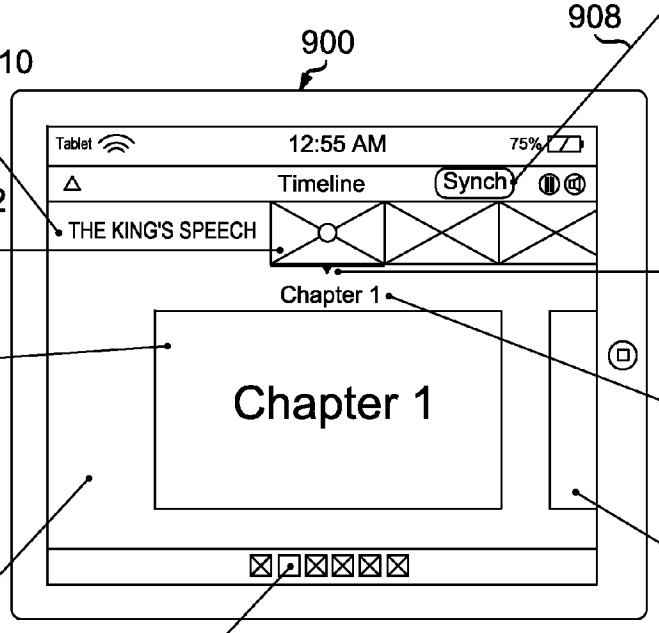

The King's Speech-Splash Screen (Movie Title)
900
The Movie Title Splash Screen is displayed and then auto-transitions to the App's Timeline View.
Tablet
12:55 AM
75%
Screen auto-transitions based on timer
<Actor Name>
<Actor Name>
<Actor Name>
The King's Speech
No Bluray Player Connected
Insert your "The King's Speech" BluRay Disc and select "Play Movie with MediaEcho" to experience special features synched to the Movie Playback
906
BluRay Message
If no BluRay Player detected a message is displayed
* If auto-detection/discovery is not technically in scope then at minimum a message should be displayed that encourage user to insert BluRay Disc to get the full experinence.

FIG. 9B

The King's Speech-Timeline (Passive Mode-Default)

The App is in the Passive Mode by default. The passive mode means the Movie Playback and the Event Timeline are in synch and that the Timeline updates automatically. In this mode the App is reacting to event triggers transmitted by the BluRay Player.



Movie Title Leader
Display Movie name. The element is a connected Chapter Bar item that will scroll with the overall Chapter Bar.

Active Chapter Highlight
(Movie Playback)
Indicates the chapter that is current playing on First Screen. By default the first chapter displays in center position

Chapter Card
The first card is displayed in the Timeline is a Chapter Card. Each Chapter's Event Set will begin with a Chapter Card Chapter Cards are displayed until the first Content Event is triggered for a given chapter.

Chapter Background/Boundary
There should be a unique background(or each set of chapter events for at least a boundary indicator to separate Event Sets).

Timeline View Icon/Button
Displays selected when the user is in the Timeline View.

Synch Button (in synch)
When the app is in passive mode the Synch Button should display in a state that indicates that Screen 1 & 2 are in synch the synch button should have a slight animation that communicates movement when the app is in the Passive Mode.

914
Active Chapter (Event Timeline)
Indicates the Chapter that is in locus with regards to the Event displayed in the Event Timeline..

916
Chapter Number
The Chapter Number associated with the Event in focus in the Event Timeline..

922
First Content Event
The First Content Event is partially displayed to indicate that there are more events upcoming (passive model) and/or to swipe to (active mode)

FIG. 9C

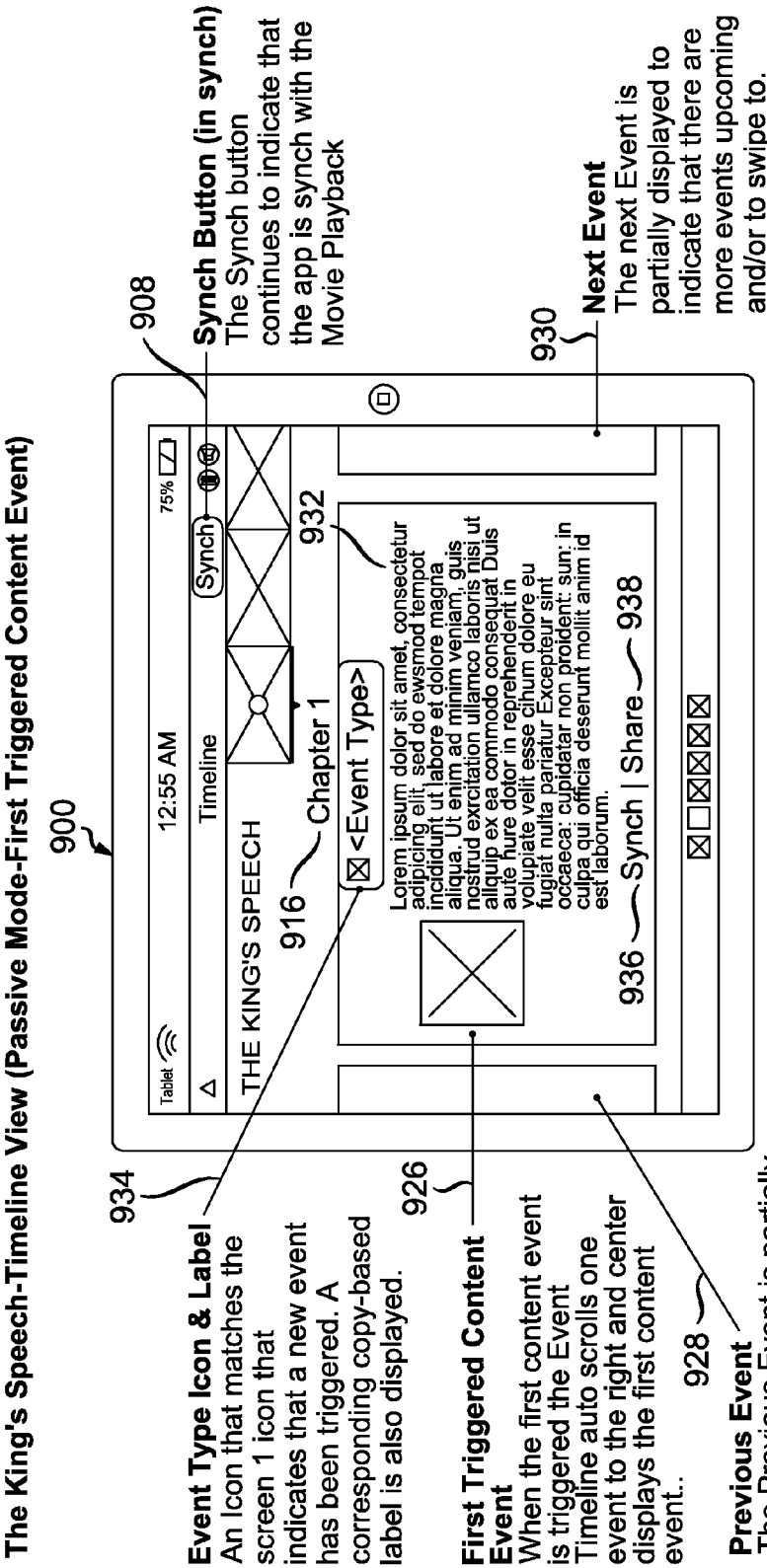

The King's Speech-Timeline View (Passive Mode-First Triggered Content Event)
900
Tablet
12:55 AM
75%
Timeline
Synch
THE KING'S SPEECH
Chapter 1
<Event Type>
Lorem ipsum dolor sit amet, consectetur adipicing elit, sed do ewsmod tempot incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, guis nostrud exrcitation ullamco laboris nisi ut allquip ex ea commodo consequat Duis aute hure dotor in reprehenderit in volupiate velit esse cihum dolore eu fugiat nulla pariatur Excepteur sint occaeca: cupidatar non proident: sun: in culpa qui officia deserunt mollit anim id est laborum.
Synch | Share
908
Synch Button (in synch)
The Synch button continues to indicate that the app is synch with the Movie Playback
930
Next Event
The next Event is partially displayed to indicate that there are more events upcoming and/or to swipe to.
916
932
934
Event Type Icon & Label
An Icon that matches the screen 1 icon that indicates that a new event has been triggered. A corresponding copy-based label is also displayed.
926
First Triggered Content Event
When the first content event is triggered the Event Timeline auto scrolls one event to the right and center displays the first content event..
928
Previous Event
The Previous Event is partially displayed to indicate that there are prior events that can be scrolled/swiped to.
936
938

FIG. 9D

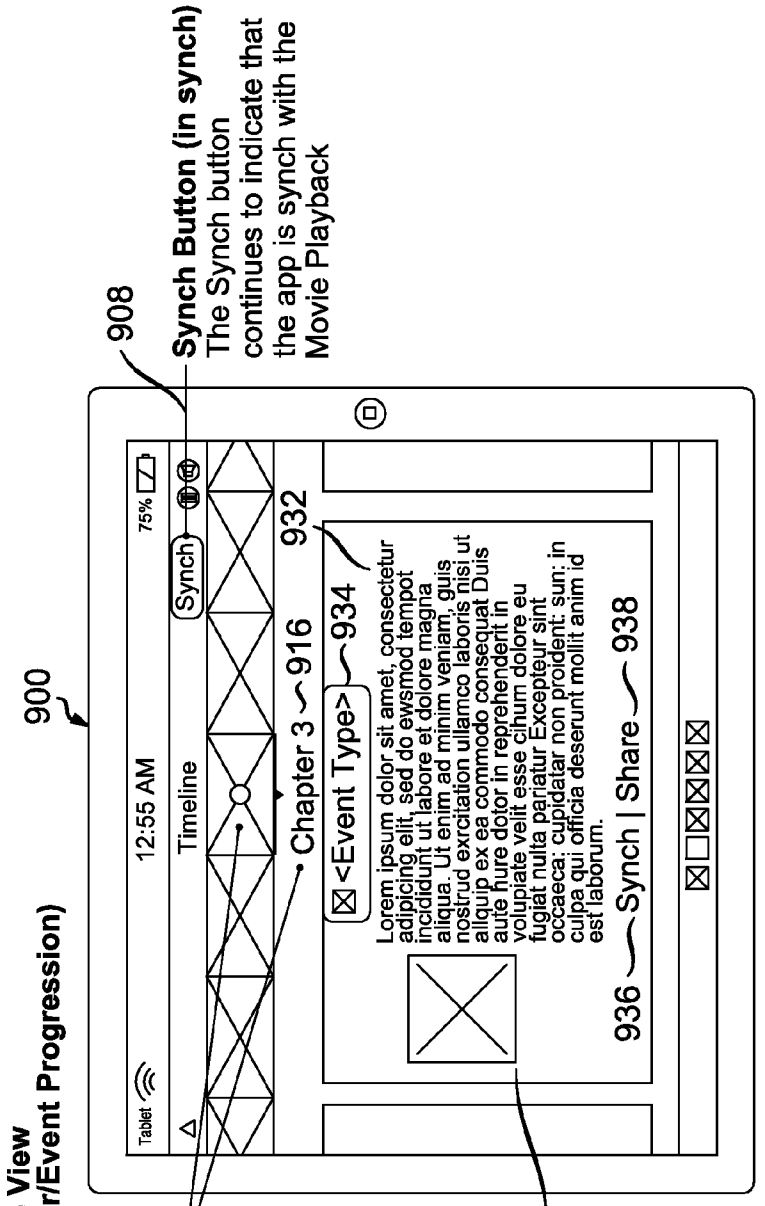

The King's Speech-Timeline View
(Passive Mode-Auto-Chapter/Event Progression)
900
908
Synch Button (in synch)
The Synch button continues to indicate that the app is synch with the Movie Playback
912
Passive Mode Progression
White the user is in Passive Mode the Movie playback, the Chapter Timeline and the Event Timeline remain in synch as the movie progresses.
926
Tablet
12:55 AM
75%
Timeline
Synch
Chapter 3
916
932
<Event Type>
934
Lorem ipsum dolor sit amet, consectetur adipicing elit, sed do ewsmod tempot incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, guis nostrud exrcitation ullamco laboris nisi ut allquip ex ea commodo consequat Duis aute hure dotor in reprehenderit in volupiate velit esse cihum dolore eu fugiat nulla pariatur Excepteur sint occaeca: cupidatar non proident: sun; in culpa qui officia deserunt mollit anim id est laborum.
936
Synch | Share
938

FIG. 9E

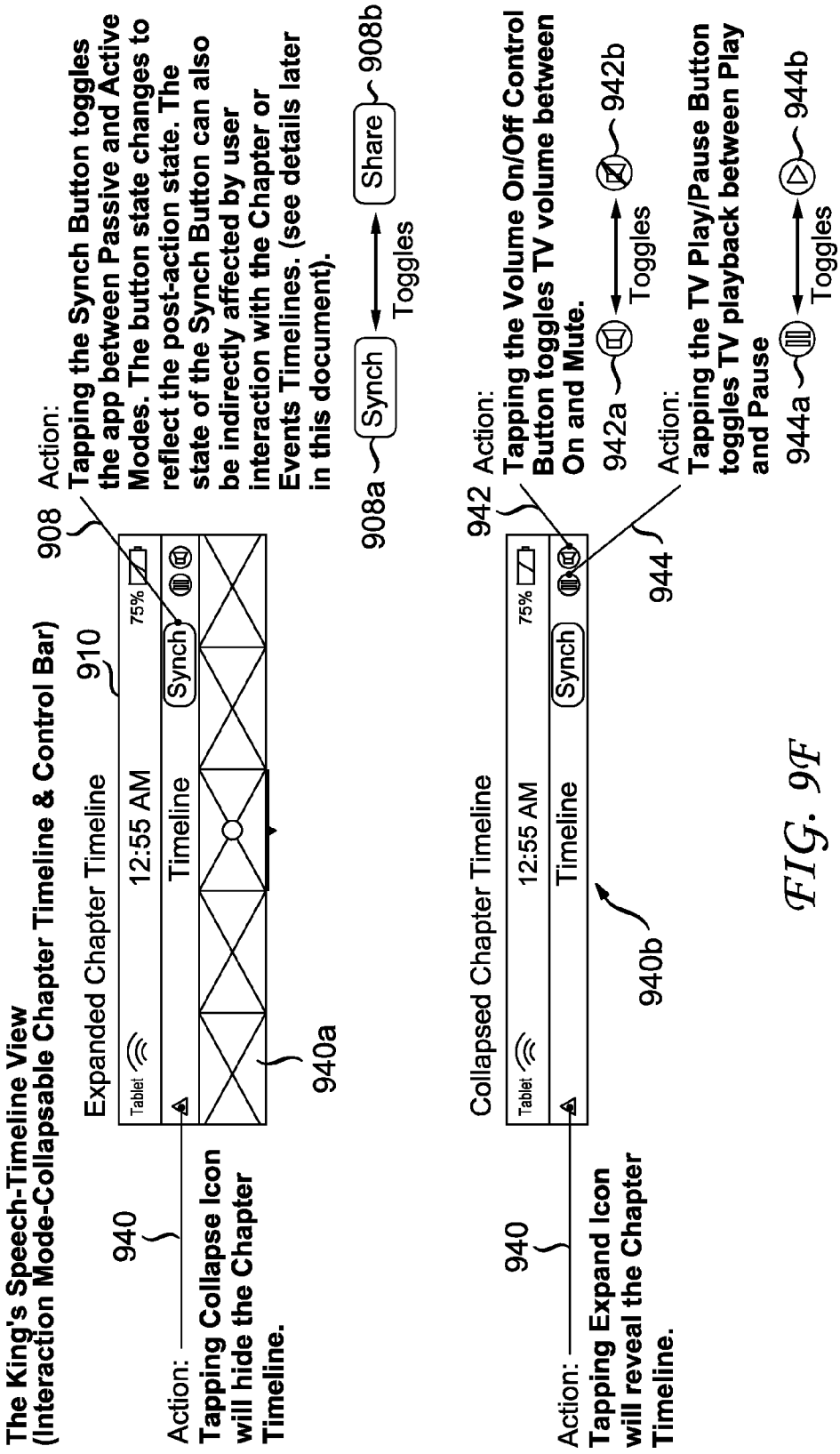
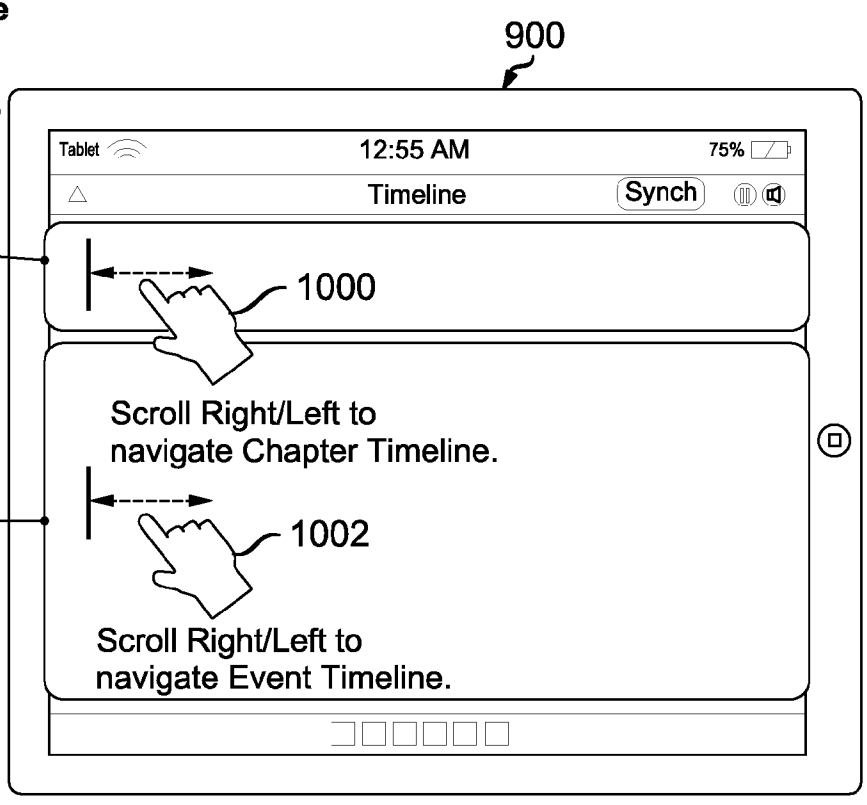

The King's Speech-Timeline View
(Interaction Mode-Collapsable Chapter Timeline & Control Bar)
Expanded Chapter Timeline
Tablet
12:55 AM
75%
Timeline
Synch
940
910
908
Action:
Tapping the Synch Button toggles the app between Passive and Active Modes. The button state changes to reflect the post-action state. The state of the Synch Button can also be indirectly affected by user interaction with the Chapter or Events Timelines. (see details later in this document).
Action:
Tapping Collapse Icon will hide the Chapter Timeline.
940a
908a
Synch
Toggles
Share
908b
Collapsed Chapter Timeline
942
Action:
Tapping the Volume On/Off Control Button toggles TV volume between On and Mute.
942a
Toggles
942b
944
Action:
Tapping the TV Play/Pause Button toggles TV playback between Play and Pause
944a
Toggles
944b
940b
Action:
Tapping Expand Icon will reveal the Chapter Timeline.

FIG. 9F

The King's Speech-Timeline View (Interactive Mode Chapter and Event Timeline)

The Chapter Timeline and Event Timeline are two independently scrollable panes that function like interdependent gears in which movement (horizontal scrolling) in the other.



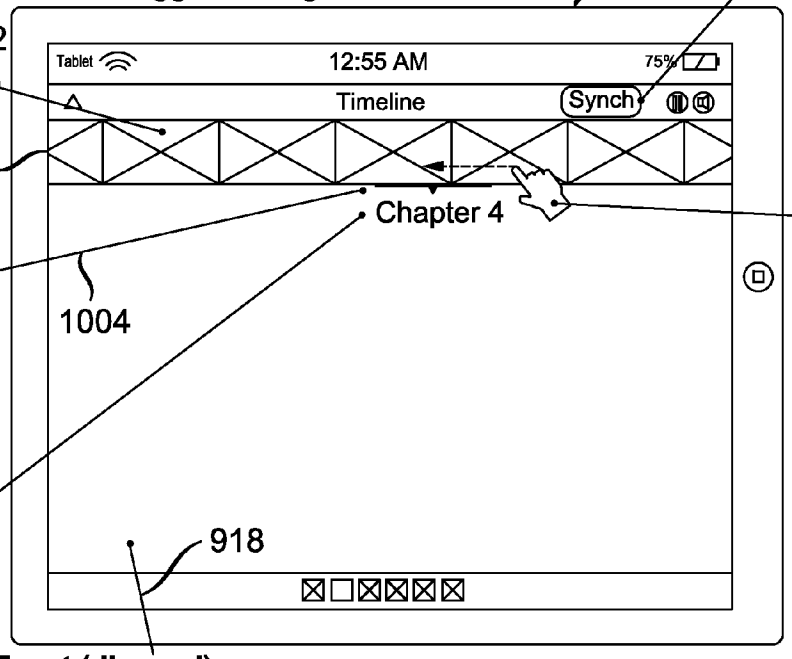
Chapter Timeline
Contains the Movie Title Leader and Chapter Thumbnails in the order that reflects the chapter sequence of the corresponding movie. All movie chapter are represented in the timeline.

Event Timeline
Display the sequence of Events for the complete movie. The Events Timeline can be continuously scrolled from the first movie event to the last movie event. Chapter breaks/transistions should be indicated by background changes or audio/visual boundary cues to distinguish Event Sets (collection of events for a given chapter).

FIG. 10A

The King's Speech-Timeline View (Active Mode-Chapter Timeline Swipe)

The Active Mode is invoked when the user swipes (browses) the Chapter Timeline or swipes (browses) the Event Timeline thus decoupling the Movie Playback and the Timeline Displays. The App should no longer react to event triggers being sent from the BluRay Player.



Active Chapter Highlights (movie Playback)
The chapter that is currently playing on First Screen should remain highlighted.

Chapter Position Indicator (conditional display)
Only display when the user is engaged with scrolling the Chapter Timeline. All Chapters should be represented. Indicates the user's position within the Chapter Sequence as they scroll.

Chapter Name
The Chapter Name should update when the loading edge of a new Chapter Thumbnail crosses the mid-point of the Chapter Timeline.

Event (dimmed)
As the user scrolls the Chapter Timeline the items in the in the Event Timeline are dimmed until the Chapter Timeline is released. Upon release the Events for the centered chapter are displayed undimmed.

Synch Button (Active)
When the app transition to active mode due to the user scrolling the Chapter Timeline, the Synch Button display in a state that indicates that the Timeline Display is out of synch with movie playback

Action: 1000
When user swipes the Chapter Timelines scroll and the Chapter Position indicator is displayed. The Chapter Name should update when the leading edge to a new Chapter Thumbnail crosses the mid-point of the Chapter Timeline. When the Chapter Timeline is released the Chapter Thumbnail that most recently crossed the mid-point of the Chapter Timeline should snap to the center position.

FIG. 10B

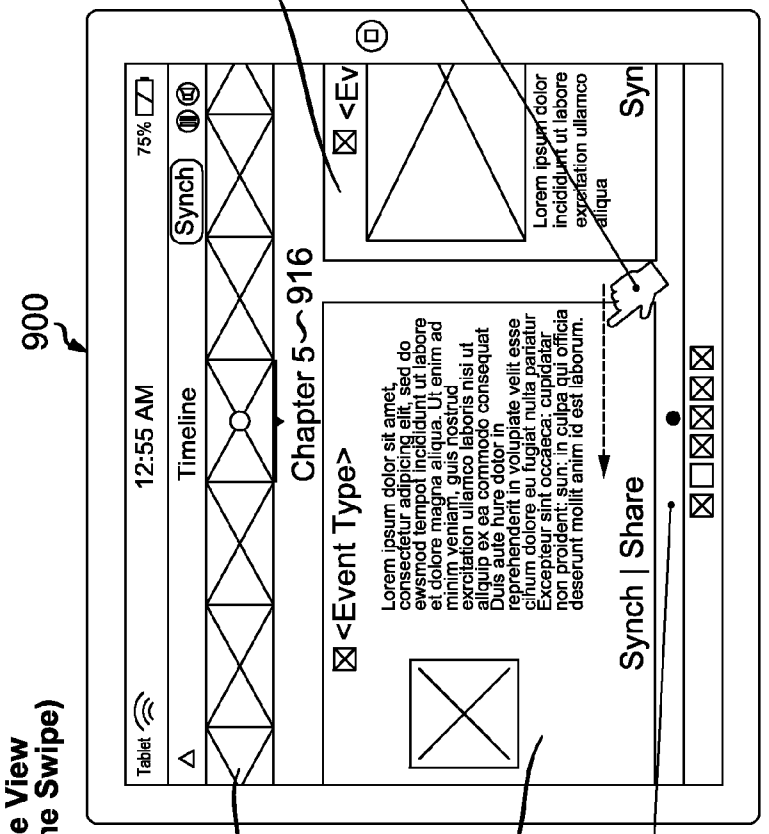

The King's Speech-Timeline View
(Active Mode-Event Timeline Swipe)
900
910
926
1006
930
1002
Tablet
12:55 AM
75%
Timeline
Synch
Chapter 5
916
<Event Type>
Lorem ipsum dolor sit amet, consectetur adipicing elit, sed do ewsmod tempot incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat Duis aute hure dolor in reprehenderit in voluptate velit esse cihum dolore eu fugiat nulla pariatur Excepteur sint occaeca: cupidatar non proident: sun: in culpa qui officia deserunt mollit anim id est laborum.
<Ev
Lorem ipsum dolor incididunt ut labore exercitation ullamco aliqua
Synch | Share
Syn
Event Position Indicator
(condition display)
Only displays when the user is engaged with scrolling the Events Timeline. All Events for the Chapter in focus should be represented indicates the user's relative position within the Active Chapter's Event Set at they scroll.
Action:
When the user swipes the Events scroll and a position indication indicator is displayed. The Event Position Indicator should update when the leading edge of a new Event crosses the mid-point of the Event Timeline. When the Event Timeline is released the Event that most crossed the center position should snap to center.

FIG. 10C

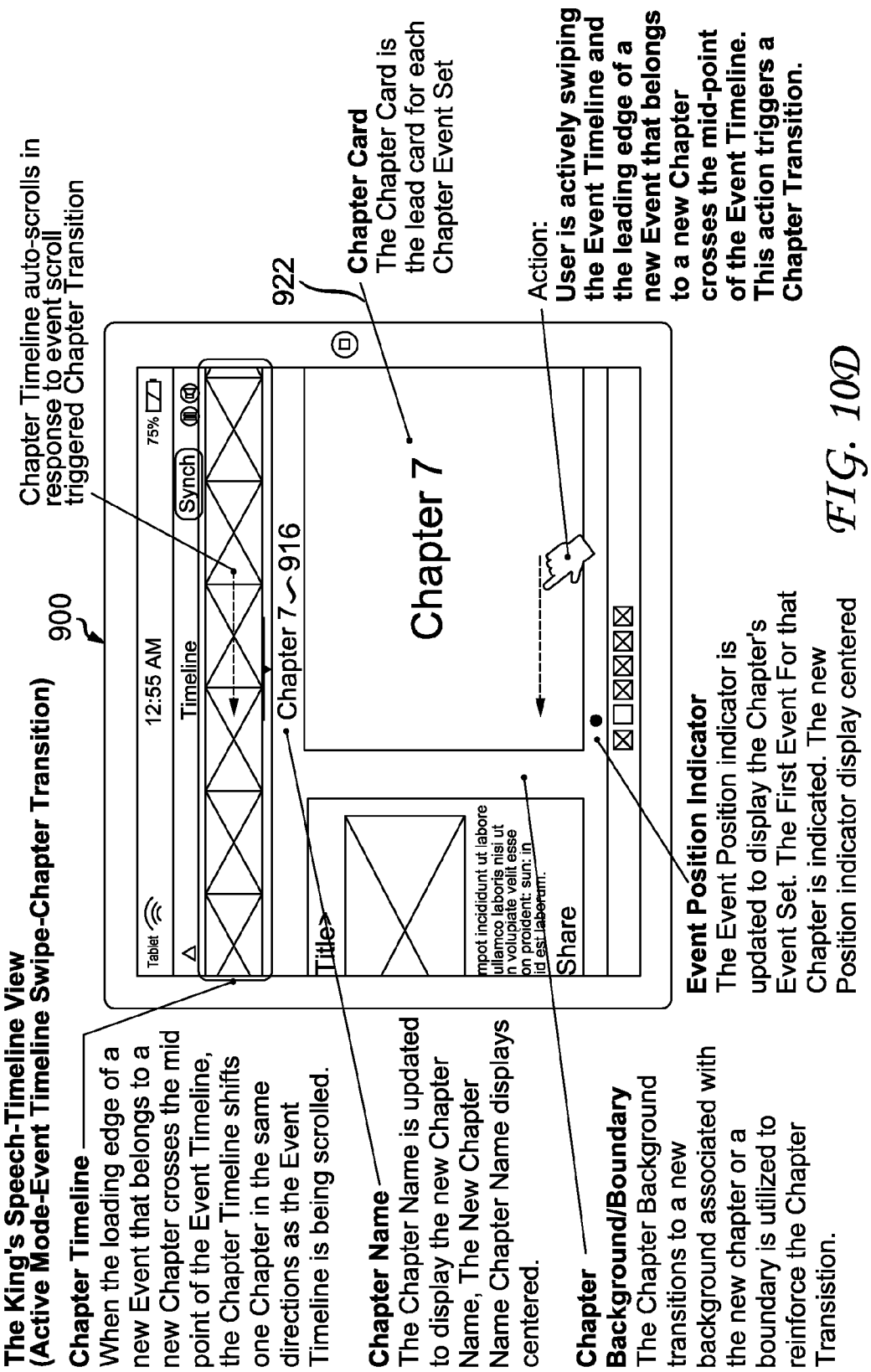

The King's Speech-Timeline View
(Active Mode-Event Timeline Swipe-Chapter Transition)
900
Chapter Timeline auto-scrolls in response to event scroll triggered Chapter Transition
Chapter Timeline
When the loading edge of a new Event that belongs to a new Chapter crosses the mid point of the Event Timeline, the Chapter Timeline shifts one Chapter in the same directions as the Event Timeline is being scrolled.
Chapter Name
The Chapter Name is updated to display the new Chapter Name, The New Chapter Name Chapter Name displays centered.
Chapter Background/Boundary
The Chapter Background transitions to a new background associated with the new chapter or a boundary is utilized to reinforce the Chapter Transition.
Tablet
12:55 AM
75%
Timeline
Synch
Chapter 7
916
Title
Chapter 7
922
Chapter Card
The Chapter Card is the lead card for each Chapter Event Set
Action:
User is actively swiping the Event Timeline and the leading edge of a new Event that belongs to a new Chapter crosses the mid-point of the Event Timeline. This action triggers a Chapter Transition.
mpot incididunt ut labore ullamco laboris nisi ut n voluptate velit esse on proident: sun: in id est laborum.
Share
Event Position Indicator
The Event Position indicator is updated to display the Chapter's Event Set. The First Event For that Chapter is indicated. The new Position indicator display centered

FIG. 10D

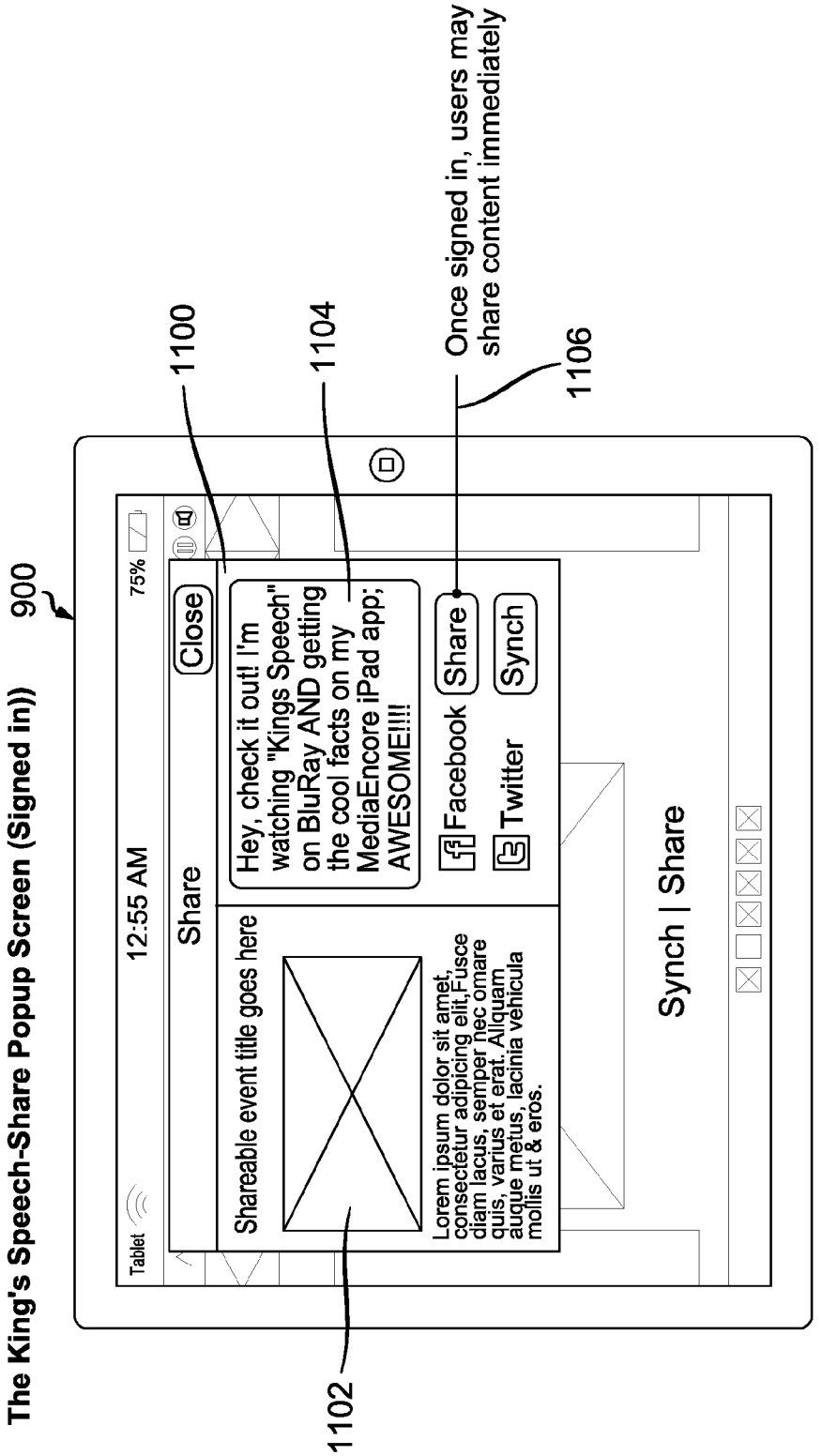

The King's Speech-Share Popup Screen (Signed in))
900
Tablet
12:55 AM
75%
Share
Close
Shareable event title goes here
Lorem ipsum dolor sit amet, consectetur adipiicing elit,Fusce diam lacus, semper nec ornare quis, varius et erat. Aliquam auque metus, lacinia vehicula mollis ut & eros.
Hey, check it out! I'm watching "Kings Speech" on BluRay AND getting the cool facts on my MediaEncore iPad app; AWESOME!!!!
Facebook
Share
Twitter
Synch
Synch | Share
1100
1102
1104
1106
Once signed in, users may share content immediately

FIG. 11A

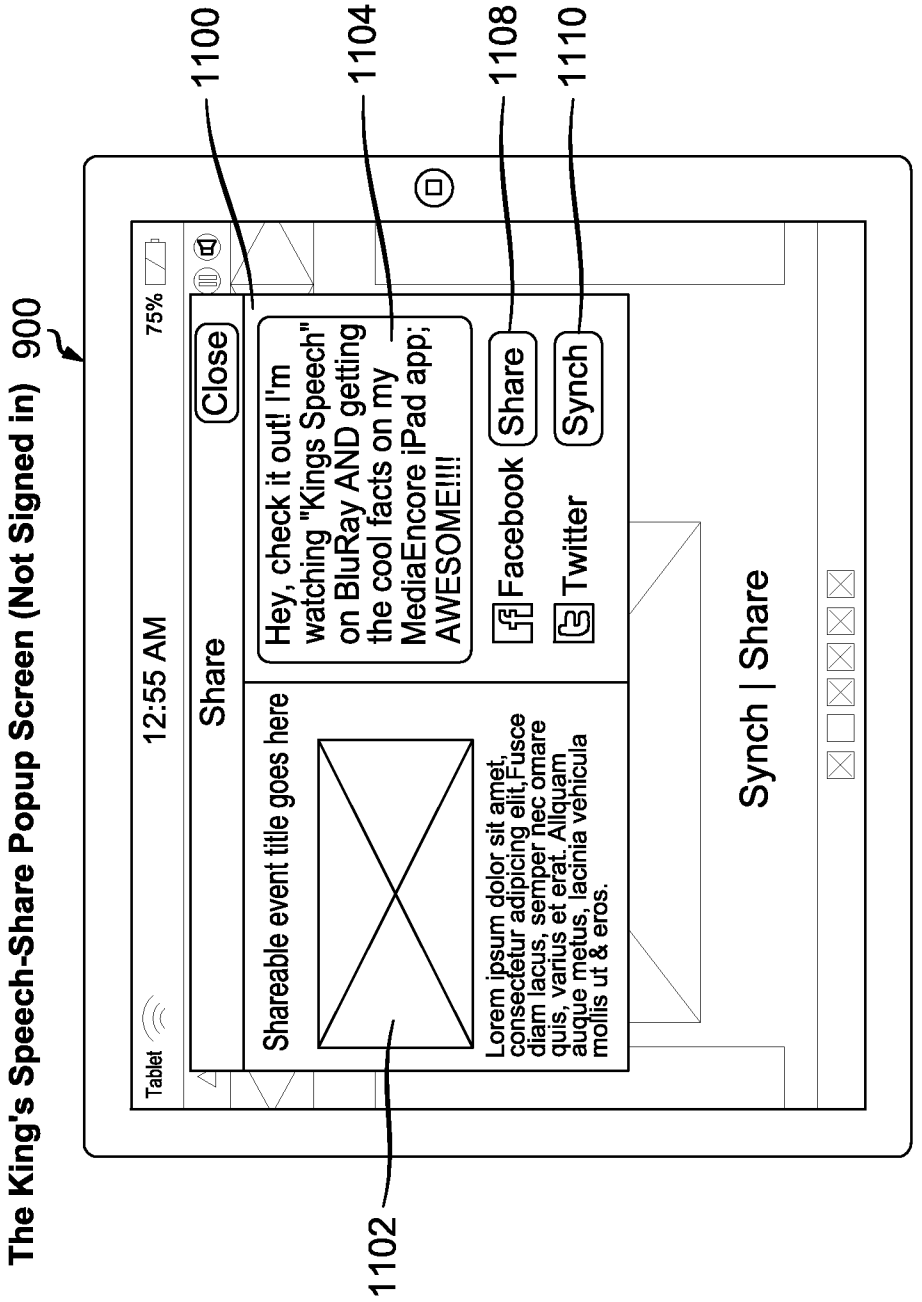

The King's Speech-Share Popup Screen (Not Signed in) 900
1100
1104
1108
1110
1102
Tablet
12:55 AM
75%
Share
Close
Shareable event title goes here
Lorem ipsum dolor sit amet, consectetur adipicing elit,Fusce diam lacus, semper nec ornare quis, varius et erat. Aliquam augue metus, lacinia vehicula mollis ut & eros.
Hey, check it out! I'm watching "Kings Speech" on BluRay AND getting the cool facts on my MediaEncore iPad app; AWESOME!!!!
Facebook
Share
Twitter
Synch
Synch | Share

FIG. 11B

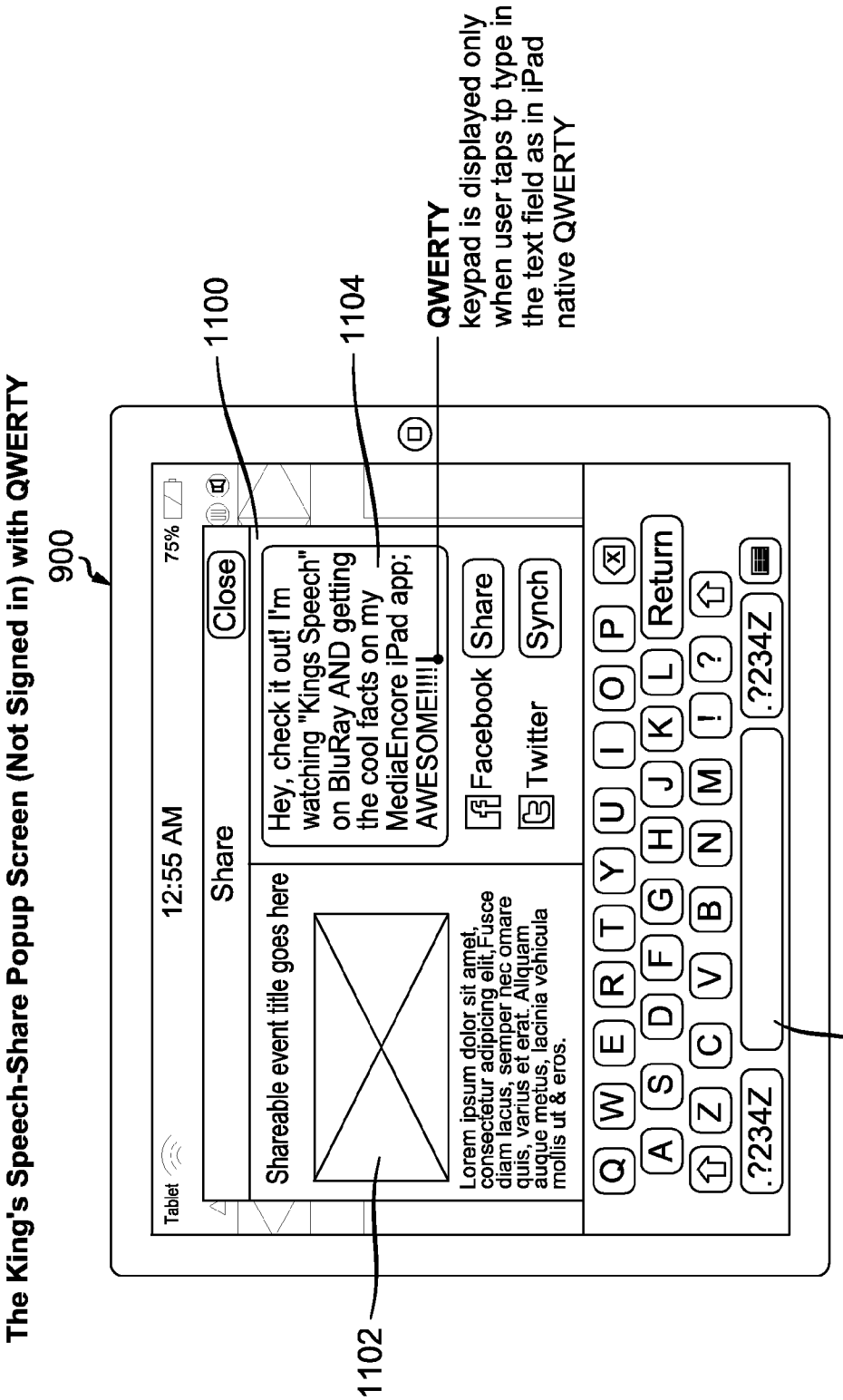
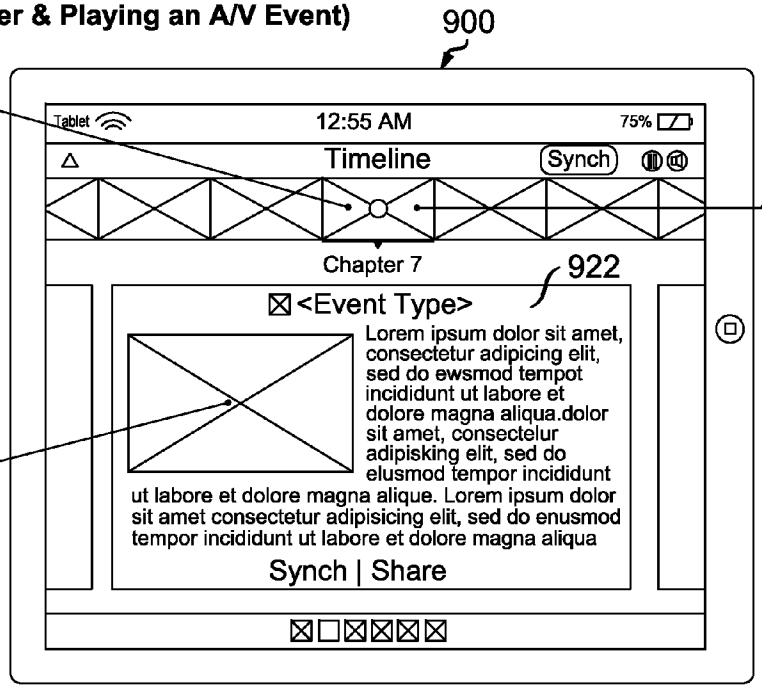

The King's Speech-Share Popup Screen (Not Signed in) with QWERTY
900
Tablet
12:55 AM
75%
Share
Close
Shareable event title goes here
Lorem ipsum dolor sit amet, consectetur adipicing elit,Fusce diam lacus, semper nec ornare quis, varius et erat. Aliquam augue metus, lacinia vehicula mollis ut & eros.
Hey, check it out! I'm watching "Kings Speech" on BluRay AND getting the cool facts on my MediaEncore iPad app; AWESOME!!!!
Facebook
Share
Twitter
Synch
Q W E R T Y U I O P
A S D F G H J K L Return
Z C V B N M ! ? ⇧
.?234Z
.?234Z
1100
1102
1104
1112
QWERTY
keypad is displayed only when user taps tp type in the text field as in iPad native QWERTY

FIG. 11C

The King's Speech-Timeline View
(Play, Pause, Restart Chapter & Playing an A/V Event)



Action:
Single Tap
If the user taps a Chapter Thumbnail that it is actively playing and that is in the center position in the Chapter Timeline,Movie Playback will be paused. The position of the EventsTimeline is an affected by this action. Once paused the Play Icon is redisplayed to initiate Playback.

Action:
***Video Clips**
Events that contain video clips are indicated by a Play icon that is associated with the media element. Tapping initiates a full-screen playback of the associated video clip.
***Audio Clips**
Audio Clips will playback directly on the Event Card on which they reside.

Action:
Double Tap
If the user double taps a Chapter Thumbnail that is actively playing and that is in the center position in the Chapter Timeline, Movie Playback will jump to the beginning of the corresponding Chapter and the Events Timeline will jump the First Event for that Chapter. This action will implicitly resynch the app to the Passive Mode.

FIG. 12A

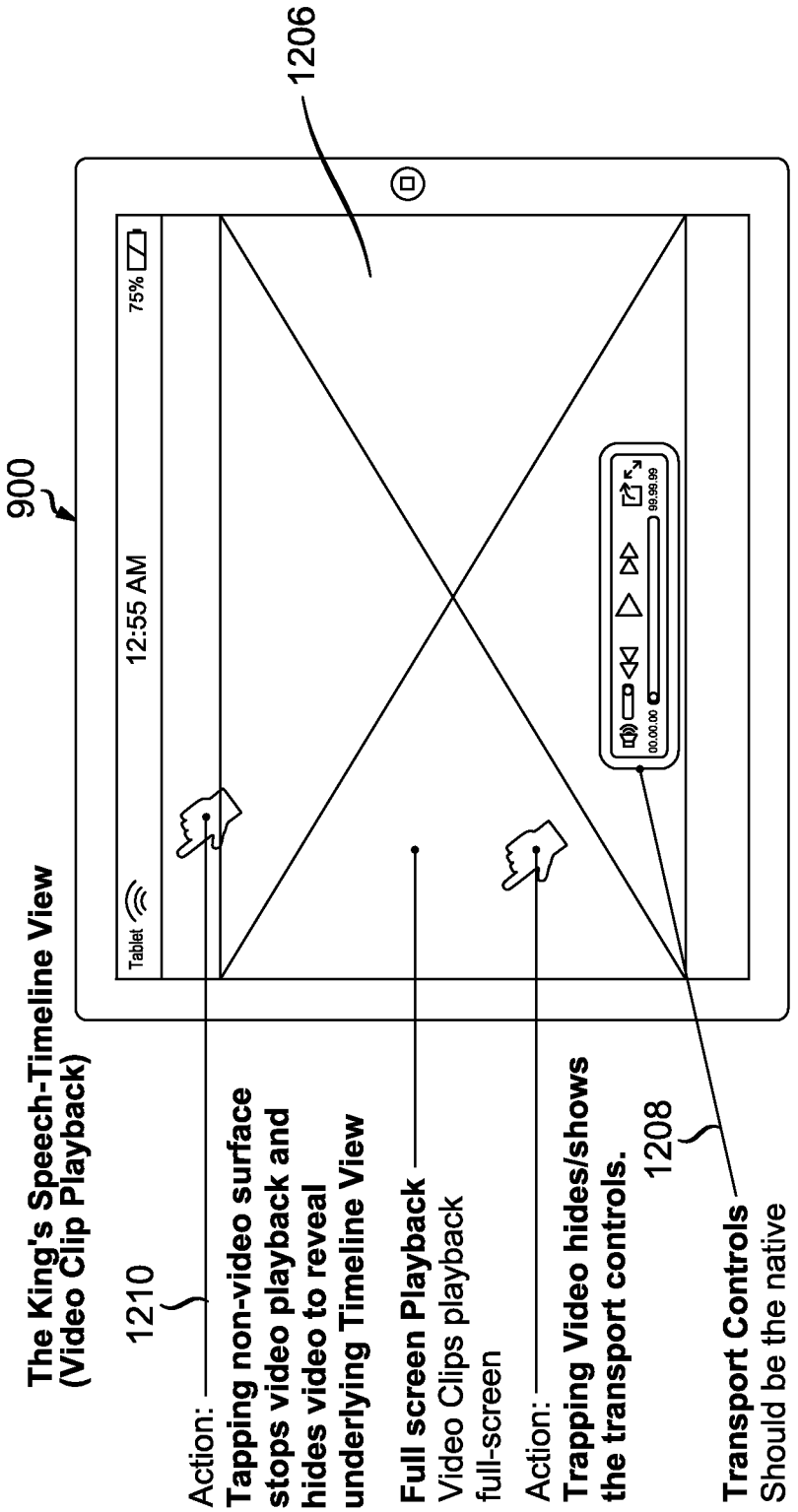

900
1206
The King's Speech-Timeline View
(Video Clip Playback)
Tablet
12:55 AM
75%
1210
Action:
Tapping non-video surface stops video playback and hides video to reveal underlying Timeline View
Full screen Playback
Video Clips playback full-screen
Action:
Trapping Video hides/shows the transport controls.
1208
Transport Controls
Should be the native QuickTime playback controls.

FIG. 12B

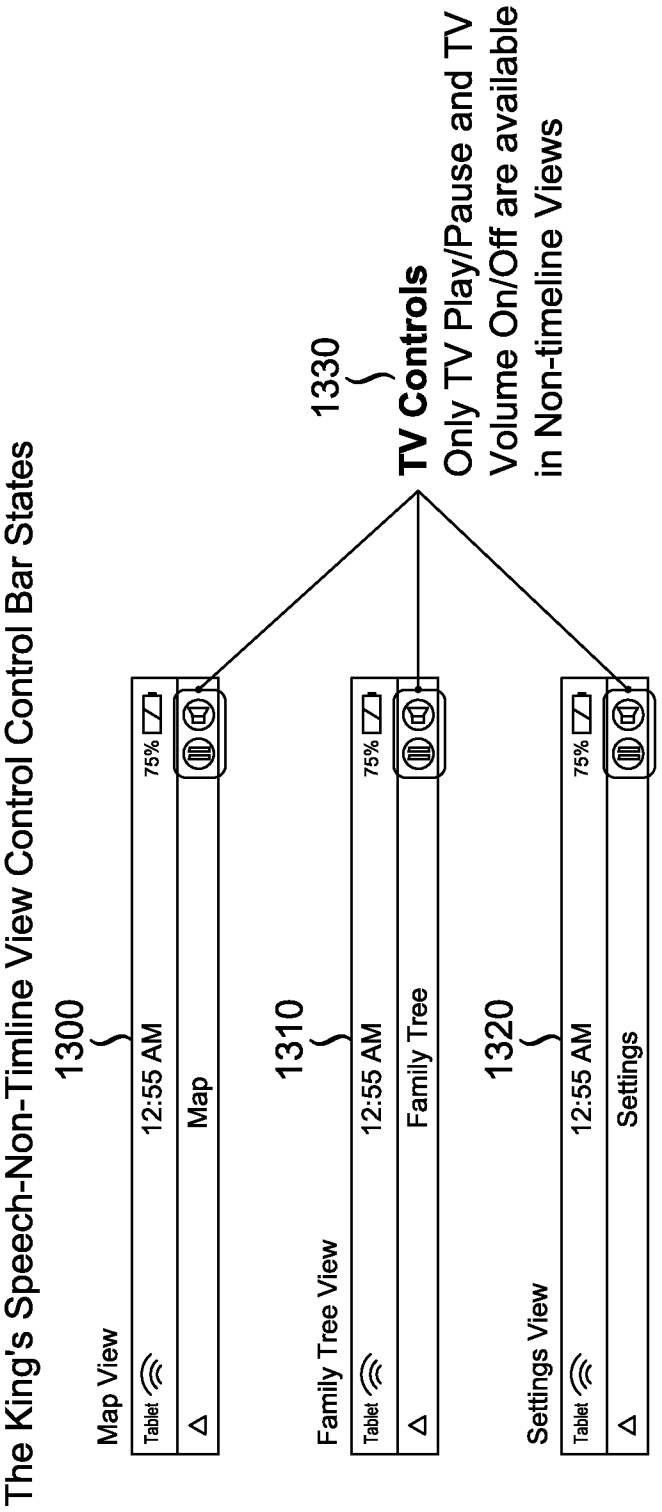

The King's Speech-Non-Timline View Control Control Bar States
1300
Map View
Tablet
12:55 AM
75%
Map
1310
Family Tree View
Tablet
12:55 AM
75%
Family Tree
1320
Settings View
Tablet
12:55 AM
75%
Settings
1330
TV Controls
Only TV Play/Pause and TV Volume On/Off are available in Non-timeline Views

FIG. 13A

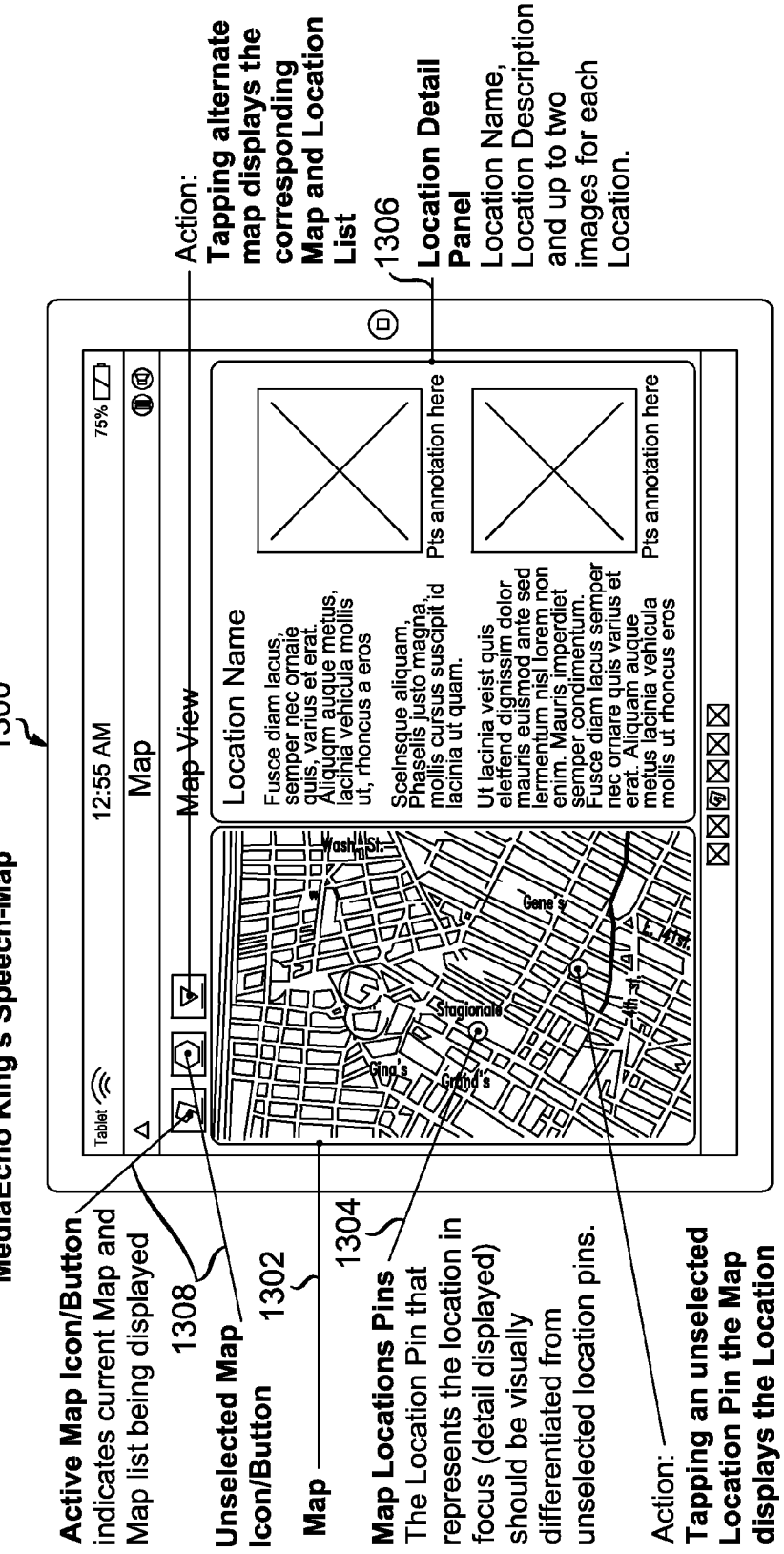

MediaEcho King's Speech-Map
1300
Tablet
12:55 AM
75%
Map
Map View
Location Name
Fusce diam lacus, semper nec ornare quis, varius et erat. Aliquam auque metus, lacinia vehicula mollis ut, rhoncus a eros
Pts annotation here
Sceinsque aliquam, Phaselis justo magna, mollis cursus suscipit id lacinia ut quam.
Ut lacinia veist quis eletfend dignissim dolor mauris euismod ante sed lermentum nisl lorem non enim. Mauris imperdiet semper condimentum.
Fusce diam lacus semper nec ornare quis varius et erat. Aliquam auque metus lacinia vehicula mollis ut rhoncus eros
Pts annotation here
Action:
Tapping alternate map displays the corresponding Map and Location List
1306
Location Detail Panel
Location Name, Location Description and up to two images for each Location.
Active Map Icon/Button indicates current Map and Map list being displayed
1308
Unselected Map Icon/Button
1302
Map
1304
Map Locations Pins
The Location Pin that represents the location in focus (detail displayed) should be visually differentiated from unselected location pins.
Action:
Tapping an unselected Location Pin the Map displays the Location Detail for that location in the Location Detail Panel.

FIG. 13B

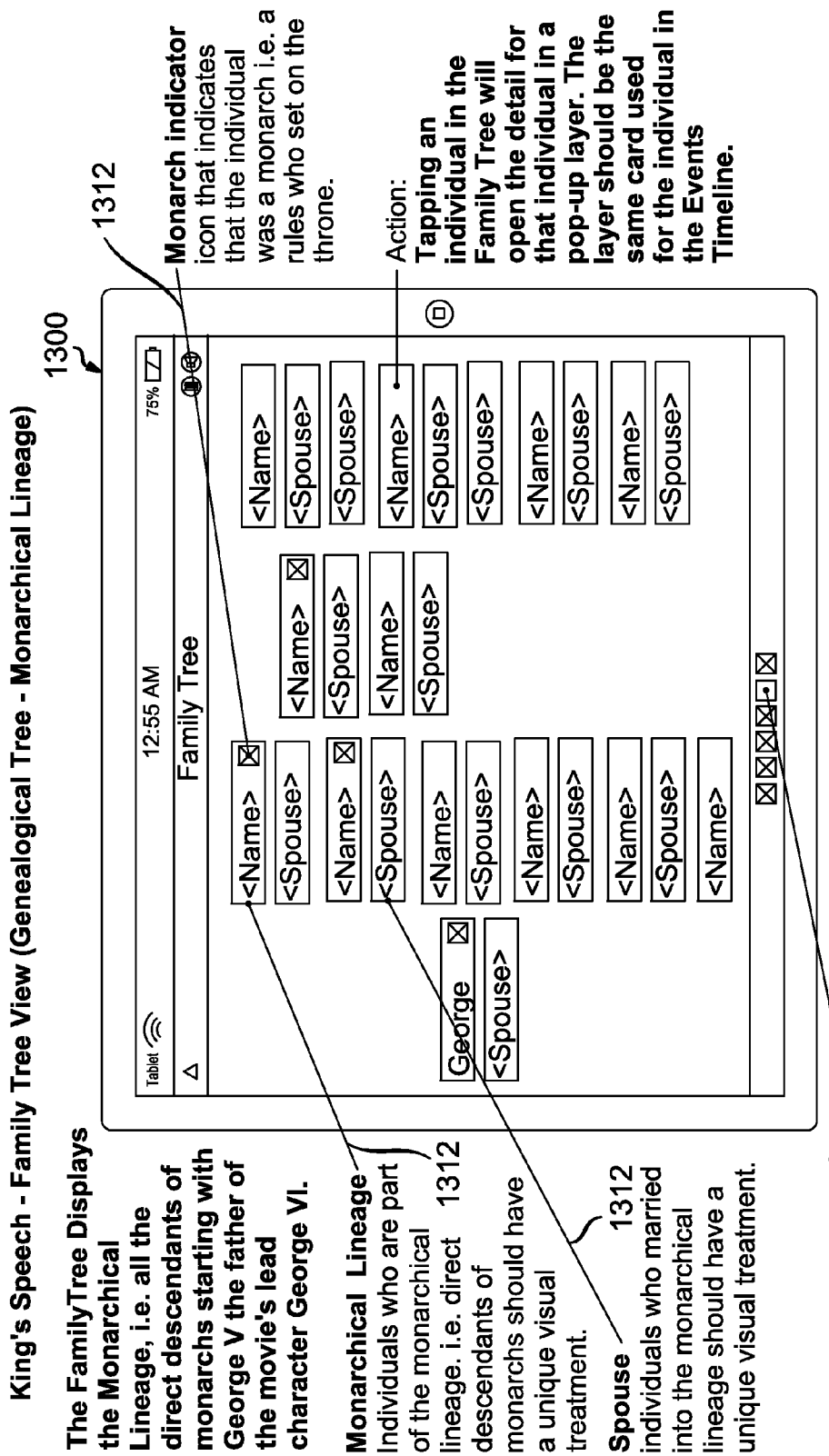

King's Speech - Family Tree View (Genealogical Tree - Monarchical Lineage)
1300
1312
Tablet
12:55 AM
75%
Family Tree
<Name>
<Spouse>
George
The FamilyTree Displays the Monarchical Lineage, i.e. all the direct descendants of monarchs starting with George V the father of the movie's lead character George VI.
Monarchical Lineage Individuals who are part of the monarchical lineage. i.e. direct descendants of monarchs should have a unique visual treatment.
1312
Spouse individuals who married into the monarchical lineage should have a unique visual treatment.
1312
Family Tree View Icon/Button Displays selected when the user is in the Family Tree View
1314
Monarch indicator icon that indicates that the individual was a monarch i.e. a rules who set on the throne.
Action: Tapping an individual in the Family Tree will open the detail for that individual in a pop-up layer. The layer should be the same card used for the individual in the Events Timeline.

FIG. 13C

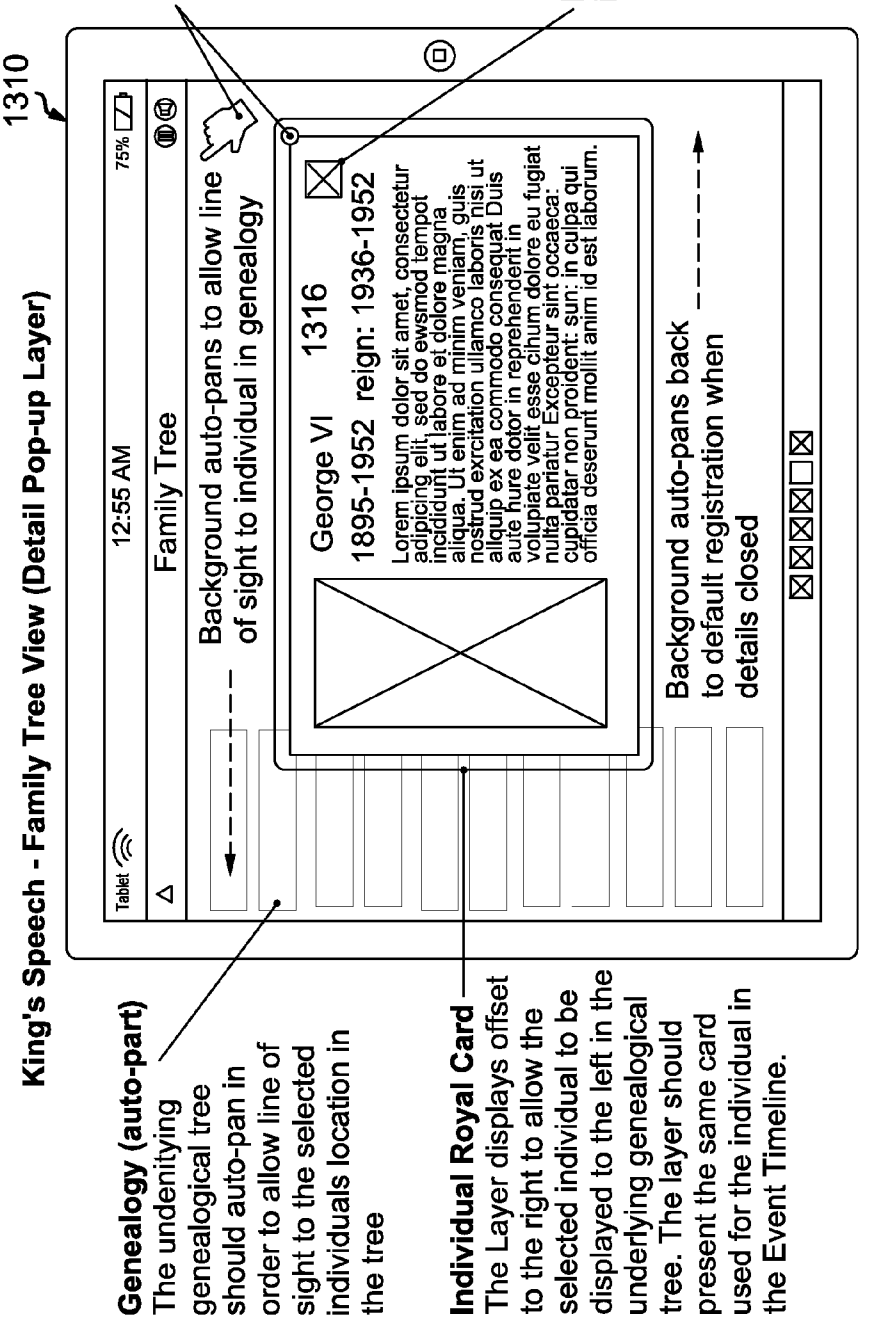

1310
King's Speech - Family Tree View (Detail Pop-up Layer)
Tablet
12:55 AM
75%
Family Tree
Background auto-pans to allow line of sight to individual in genealogy
George VI 1316
1895-1952 reign: 1936-1952
Lorem ipsum dolor sit amet, consectetur adipiicing elit, sed do ewsmod tempot incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, guis nostrud exrcitation ullamco laboris nisi ut allquip ex ea commodo consequat Duis aute hure dolor in reprehenderit in volupiate velit esse cihum dolore eu fugiat nulfa pariatur Excepteur sint occaeca: cupidatar non proident: sun: in culpa qui officia deserunt mollit anim id est laborum.
Background auto-pans back to default registration when details closed
Action: Tapping the Close Button or the non-layer surface of the display closes the Detail pop-up Layer. The Genealogical Tree returns/re-registers itself to its default position.
Monarch indicator icon that indicates that the individual was a monarch i.e. a ruler who set on the throne.
Genealogy (auto-part) The undenitying genealogical tree should auto-pan in order to allow line of sight to the selected individuals location in the tree
Individual Royal Card The Layer displays offset to the right to allow the selected individual to be displayed to the left in the underlying genealogical tree. The layer should present the same card used for the individual in the Event Timeline.

FIG. 13D

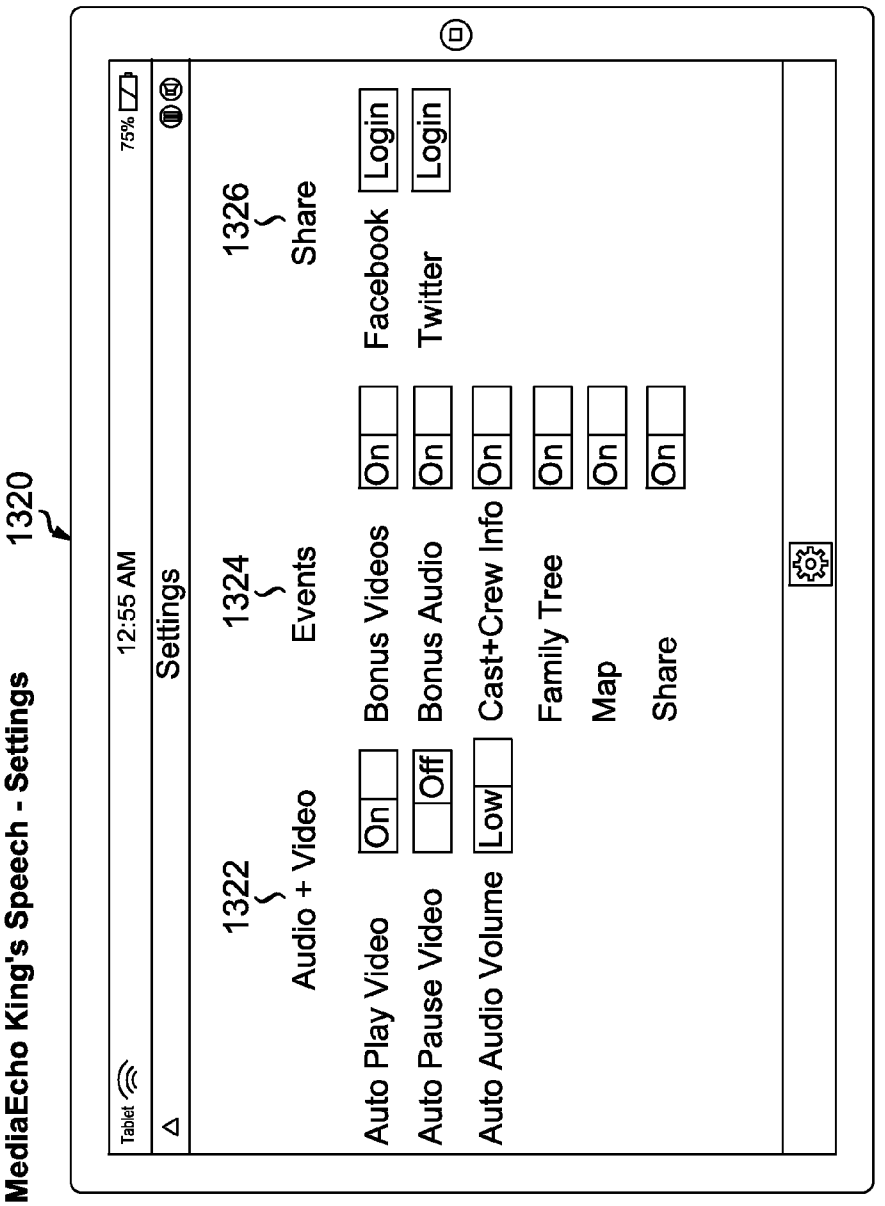

MediaEcho King's Speech - Settings
1320
Tablet
12:55 AM
75%
Settings
1322
Audio + Video
Auto Play Video
On
Auto Pause Video
Off
Auto Audio Volume
Low
1324
Events
Bonus Videos
On
Bonus Audio
On
Cast+Crew Info
On
Family Tree
On
Map
On
Share
On
1326
Share
Facebook
Login
Twitter
Login

FIG. 13E

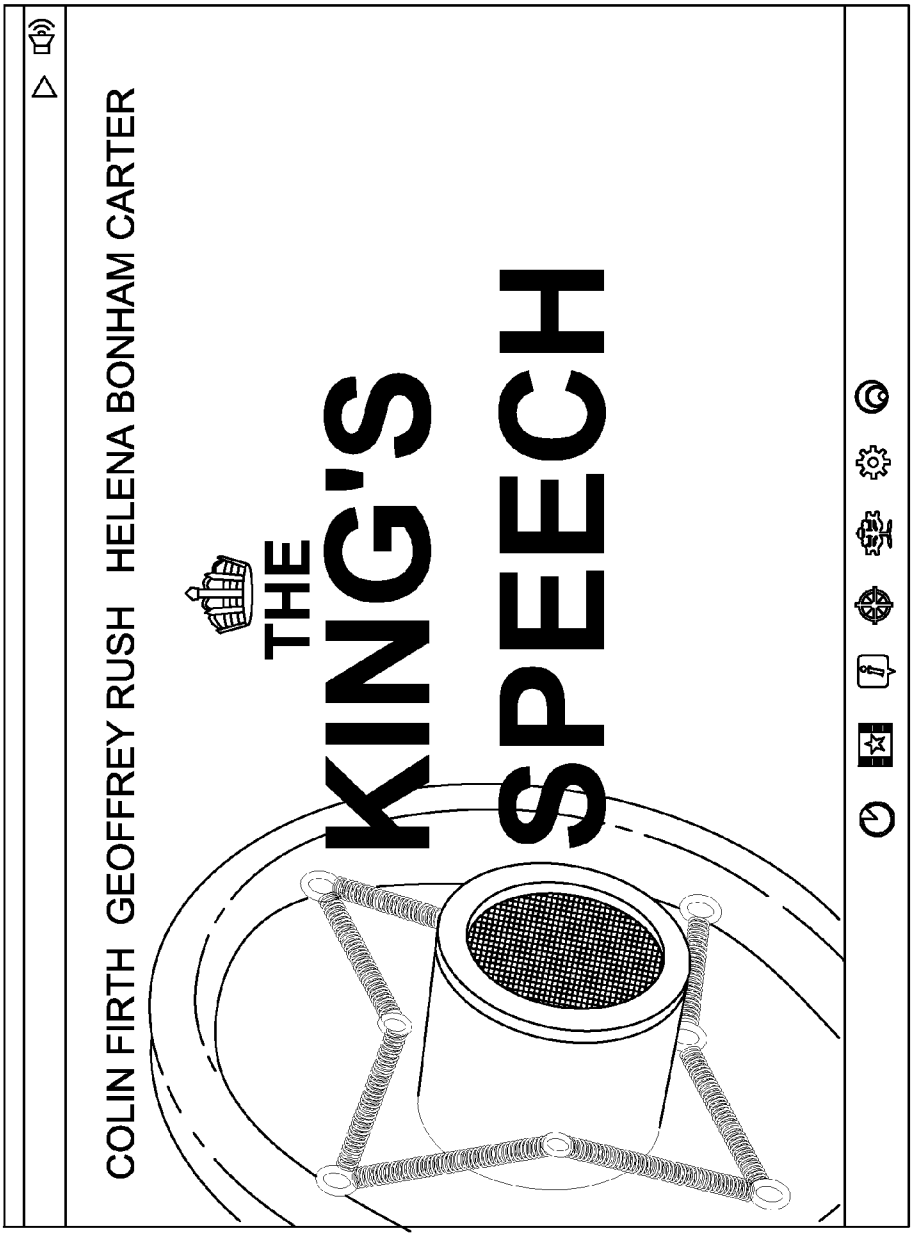

COLIN FIRTH GEOFFREY RUSH HELENA BONHAM CARTER
THE KING'S SPEECH

FIG. 14A

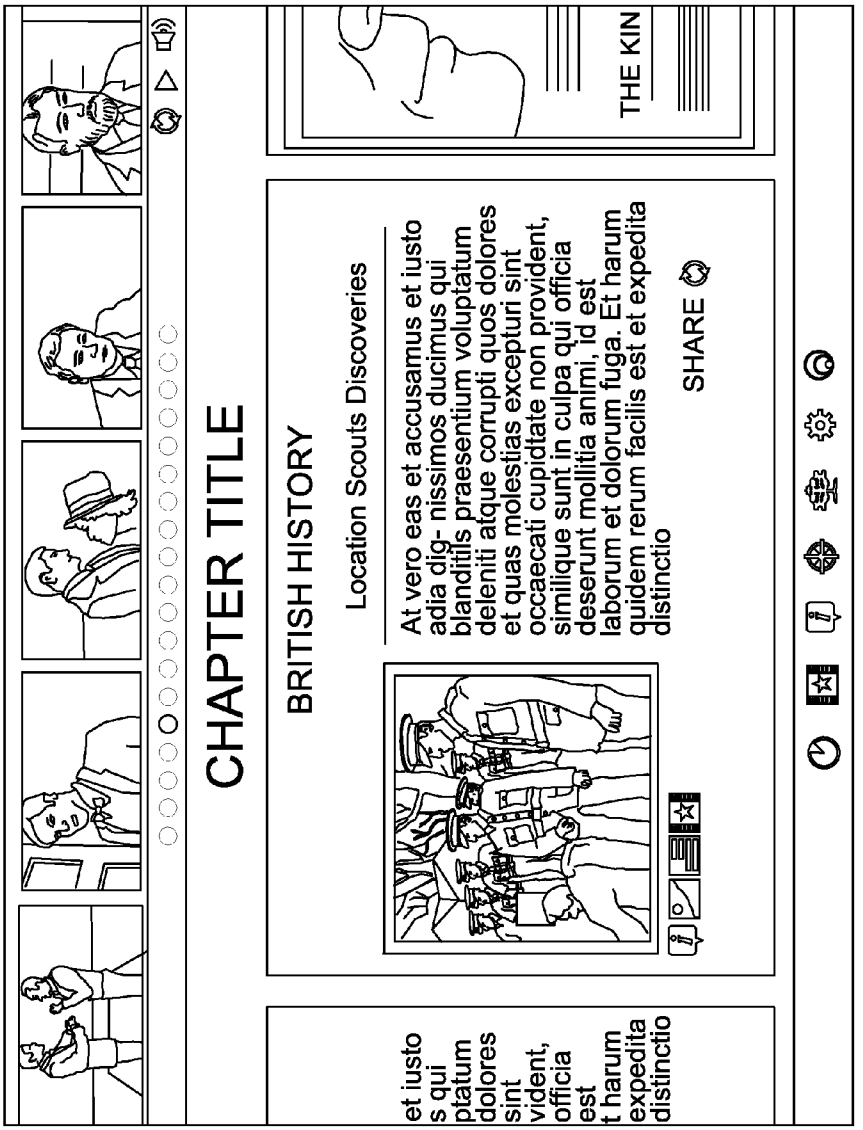

CHAPTER TITLE
BRITISH HISTORY
Location Scouts Discoveries
At vero eas et accusamus et iusto adia dig- nissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio
SHARE
et iusto s qui ptatum dolores sint vident, officia est t harum expedita distinctio
THE KIN

FIG. 14B

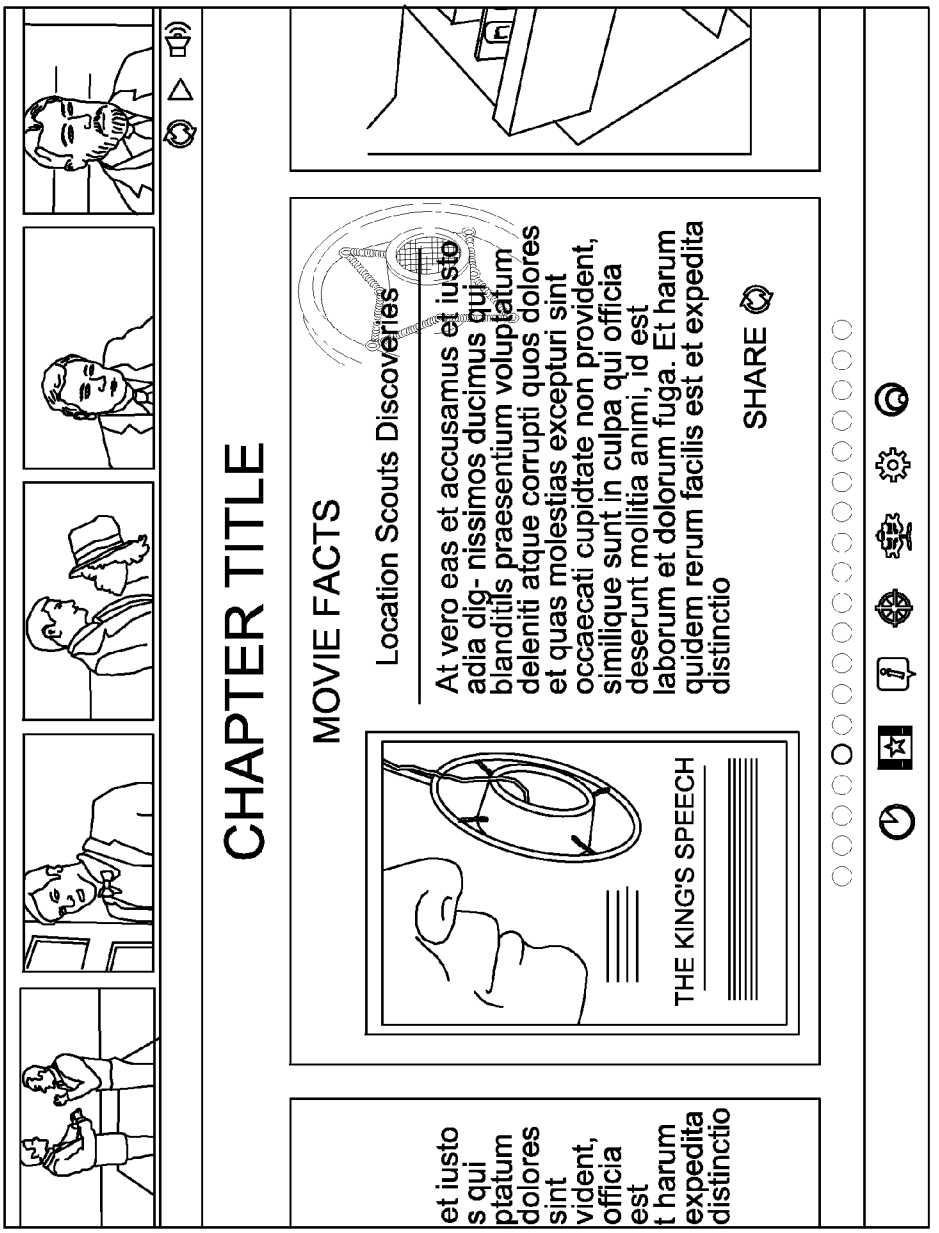
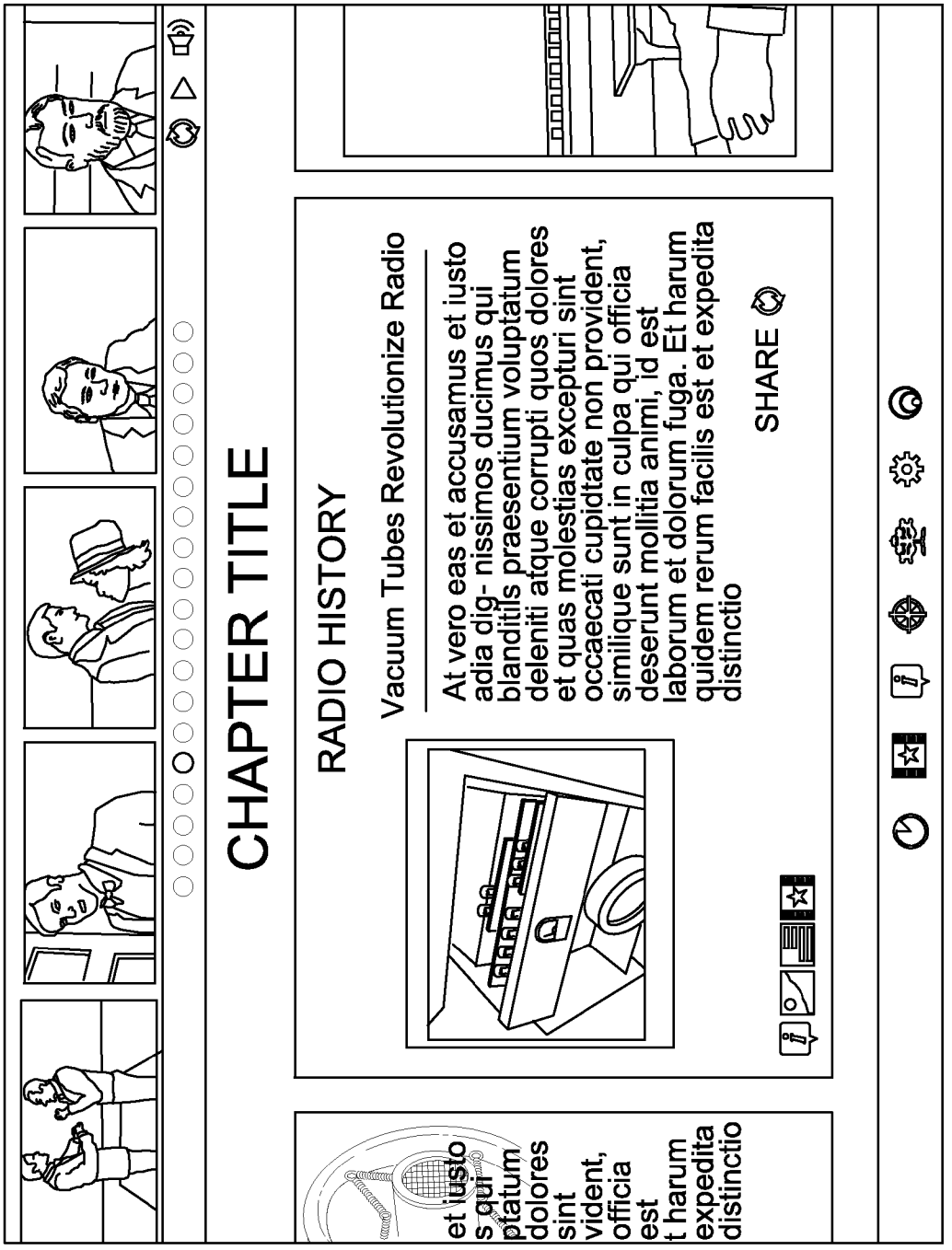

CHAPTER TITLE
MOVIE FACTS
Location Scouts Discoveries
At vero eas et accusamus et iusto adia dig- nissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupidtate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio
SHARE
THE KING'S SPEECH
et iusto
s qui
ptatum
dolores
sint
vident,
officia
est
t harum
expedita
distinctio

FIG. 14C


CHAPTER TITLE
RADIO HISTORY
Vacuum Tubes Revolutionize Radio
At vero eas et accusamus et iusto adia dig- nissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupidtate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio
SHARE
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s qui
ptatum
dolores
sint
vident,
officia
est
t harum
expedita
distinctio

FIG. 14D

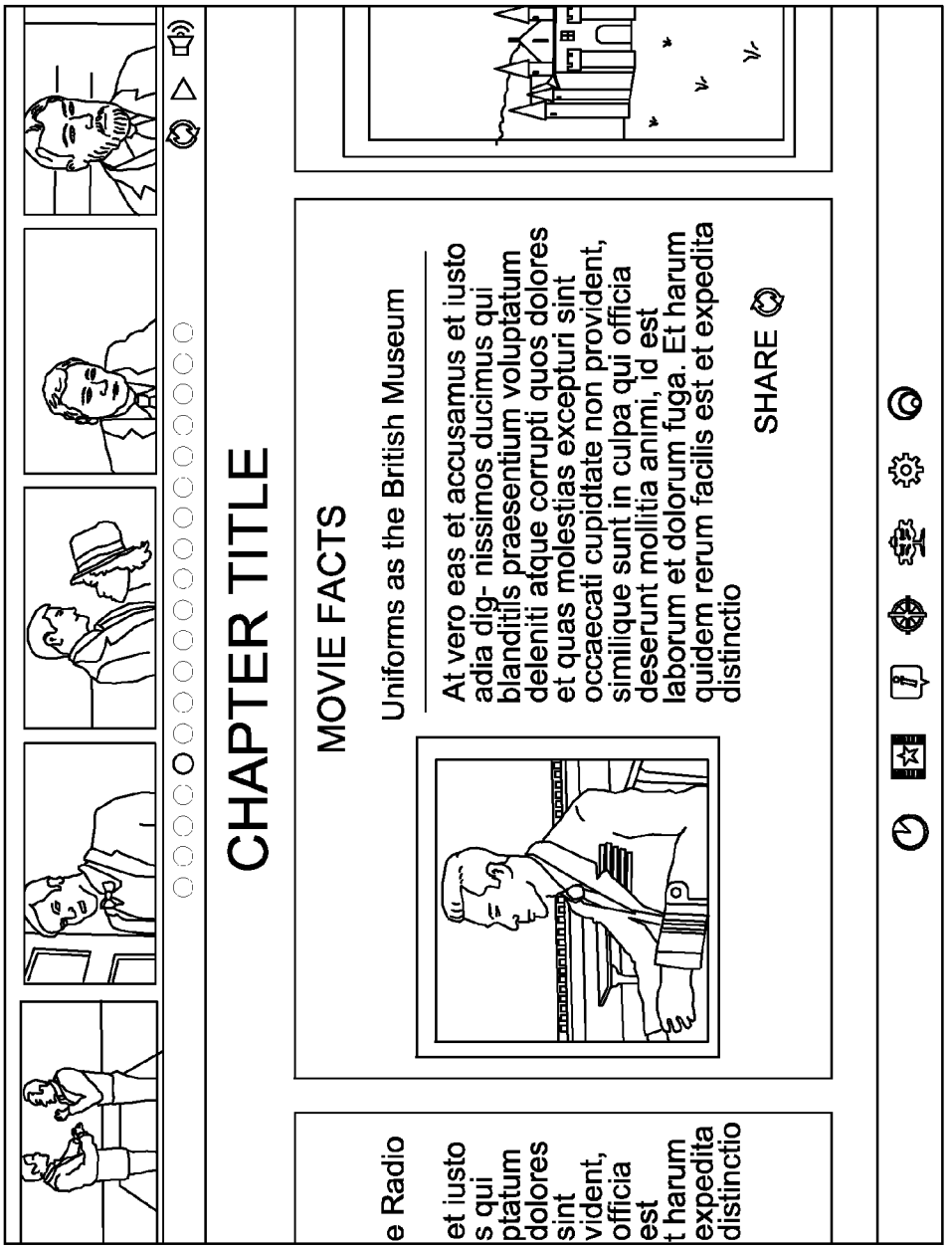
CHAPTER TITLE
MOVIE FACTS
Uniforms as the British Museum
At vero eas et accusamus et iusto adia dig- nissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupidtate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio
SHARE
e Radio
et iusto
s qui
ptatum
dolores
sint
vident,
officia
est
t harum
expedita
distinctio

FIG. 14E

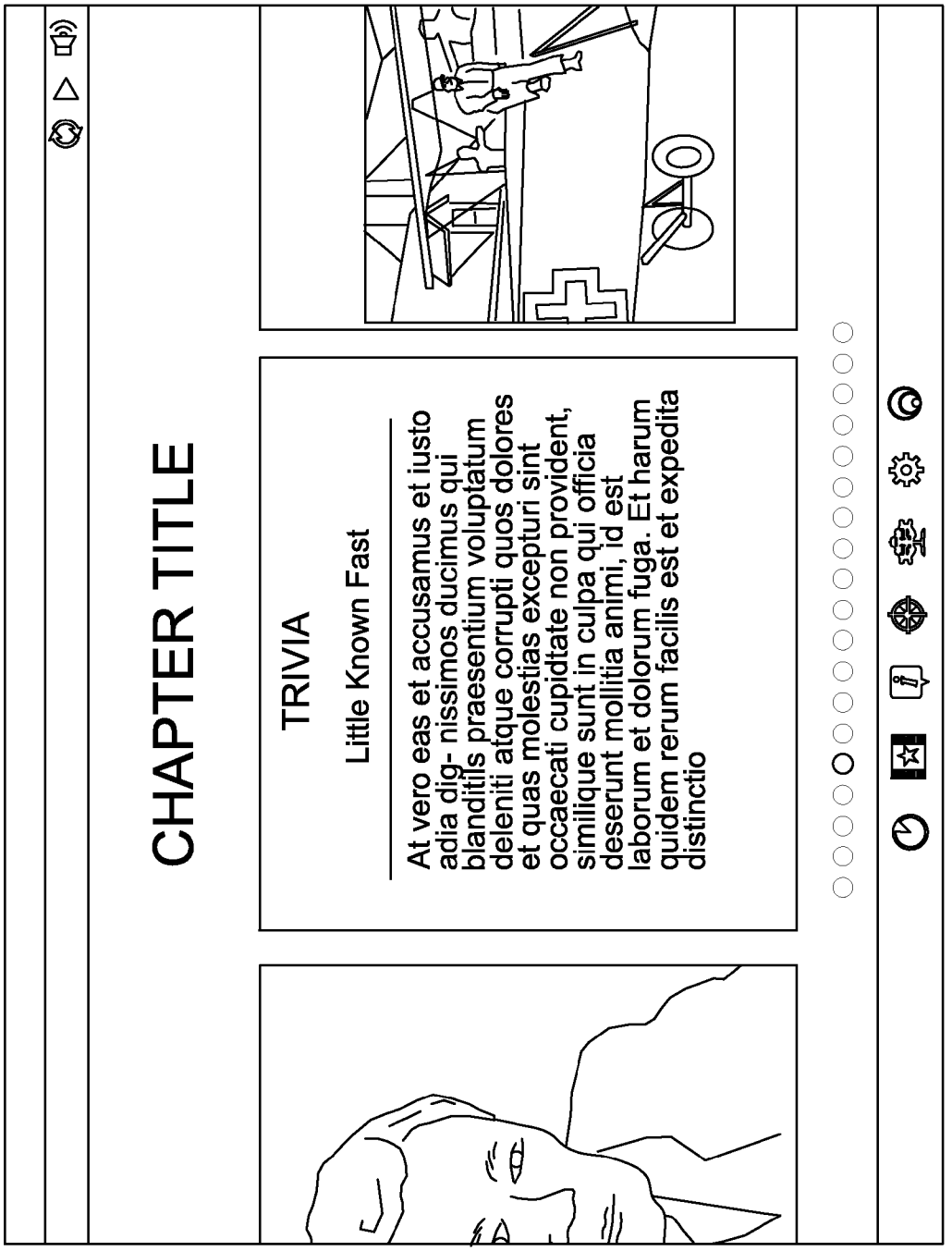
CHAPTER TITLE
TRIVIA
Little Known Fast
At vero eas et accusamus et iusto adia dig- nissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupidtate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio

FIG. 14F

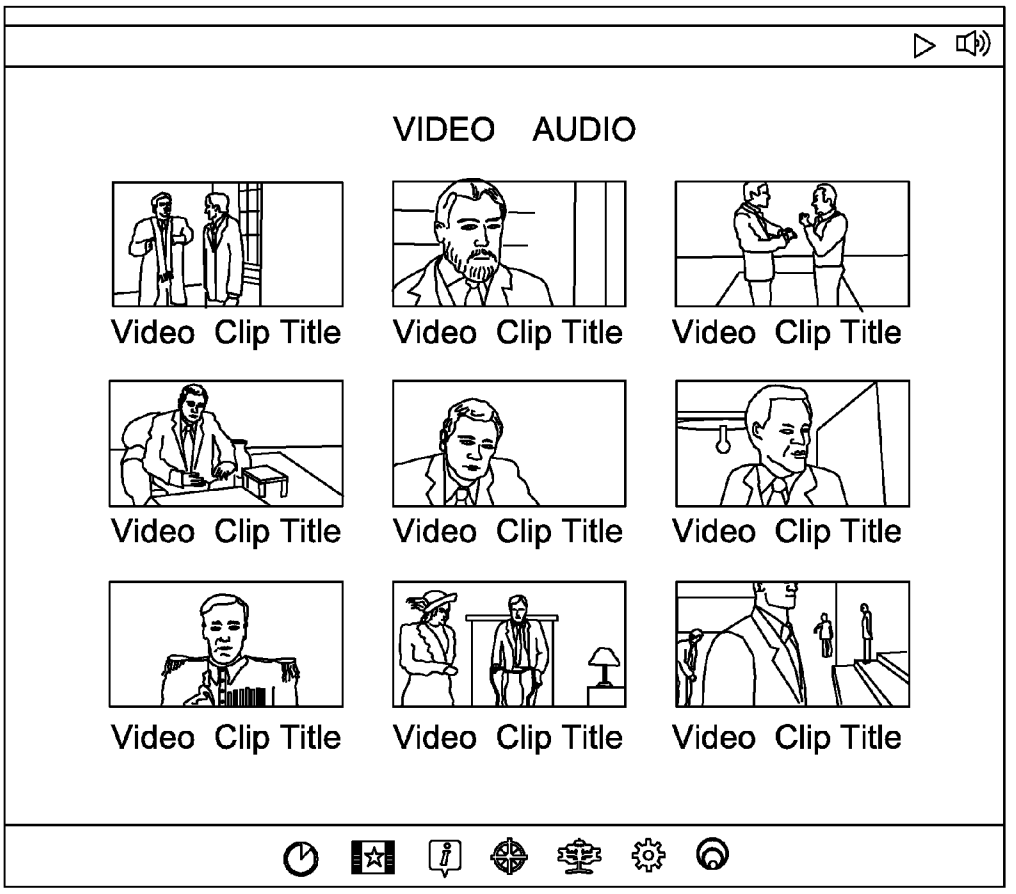
VIDEO AUDIO
Video Clip Title
Video Clip Title
Video Clip Title
Video Clip Title
Video Clip Title
Video Clip Title
Video Clip Title
Video Clip Title
Video Clip Title

FIG. 14G

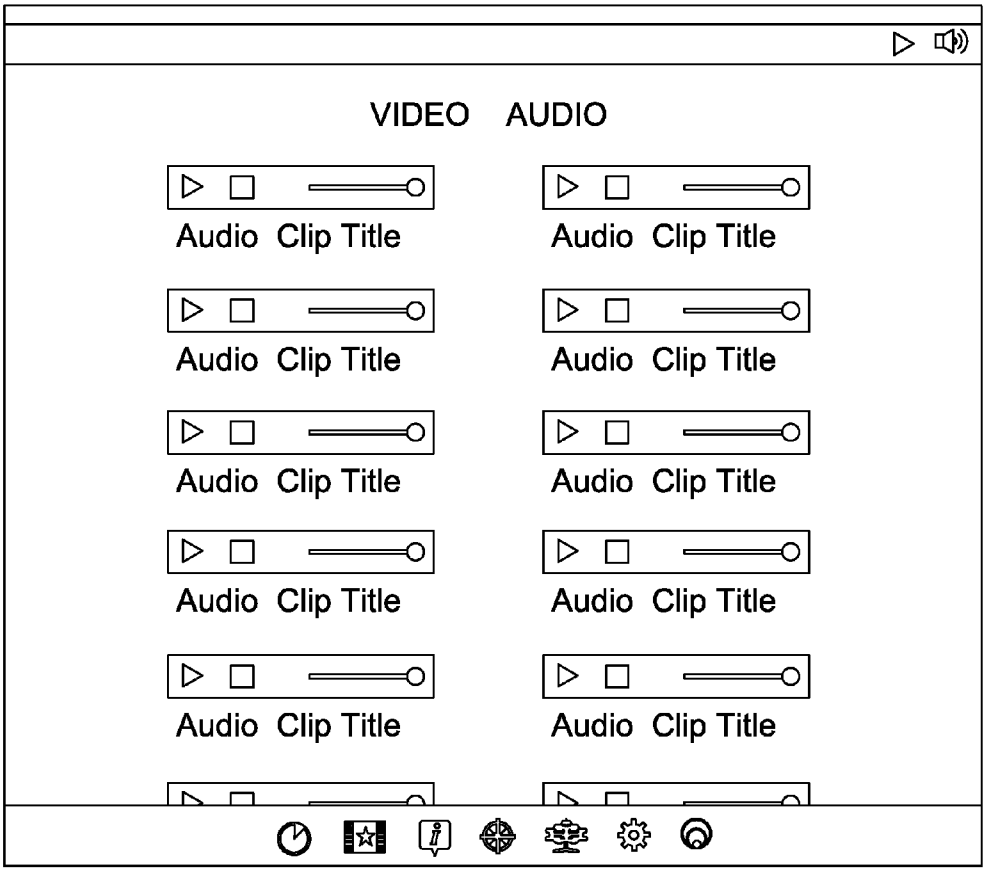
VIDEO AUDIO
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title
Audio Clip Title

FIG. 14H

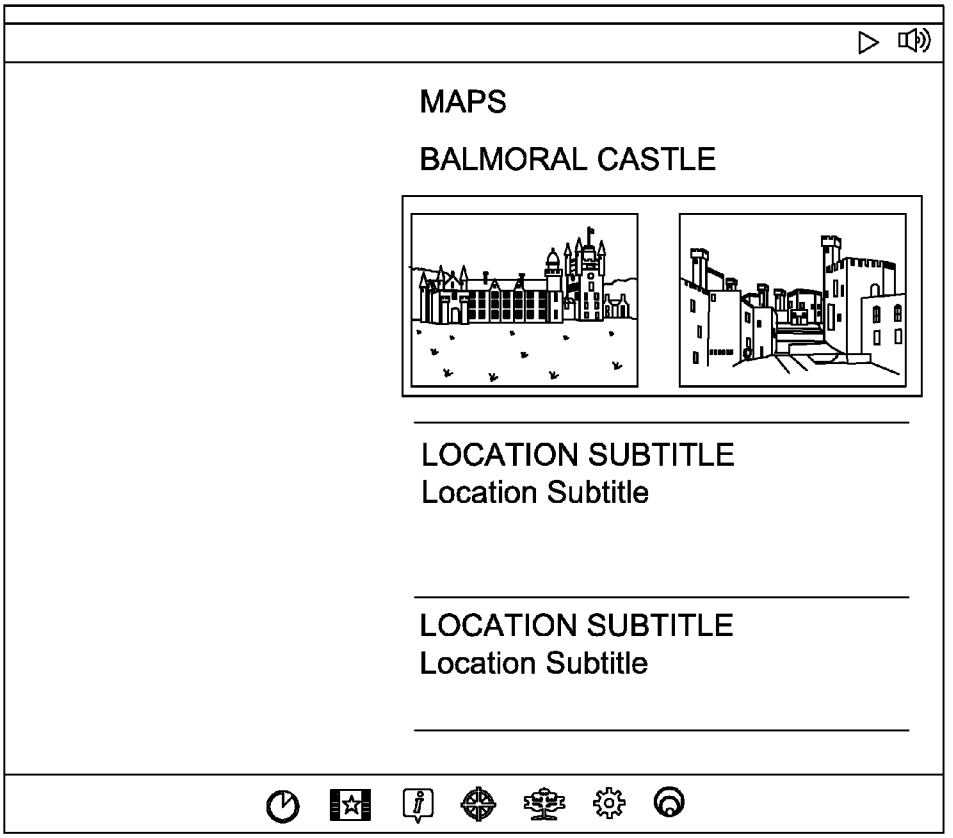
MAPS
BALMORAL CASTLE
LOCATION SUBTITLE
Location Subtitle
LOCATION SUBTITLE
Location Subtitle

FIG. 141

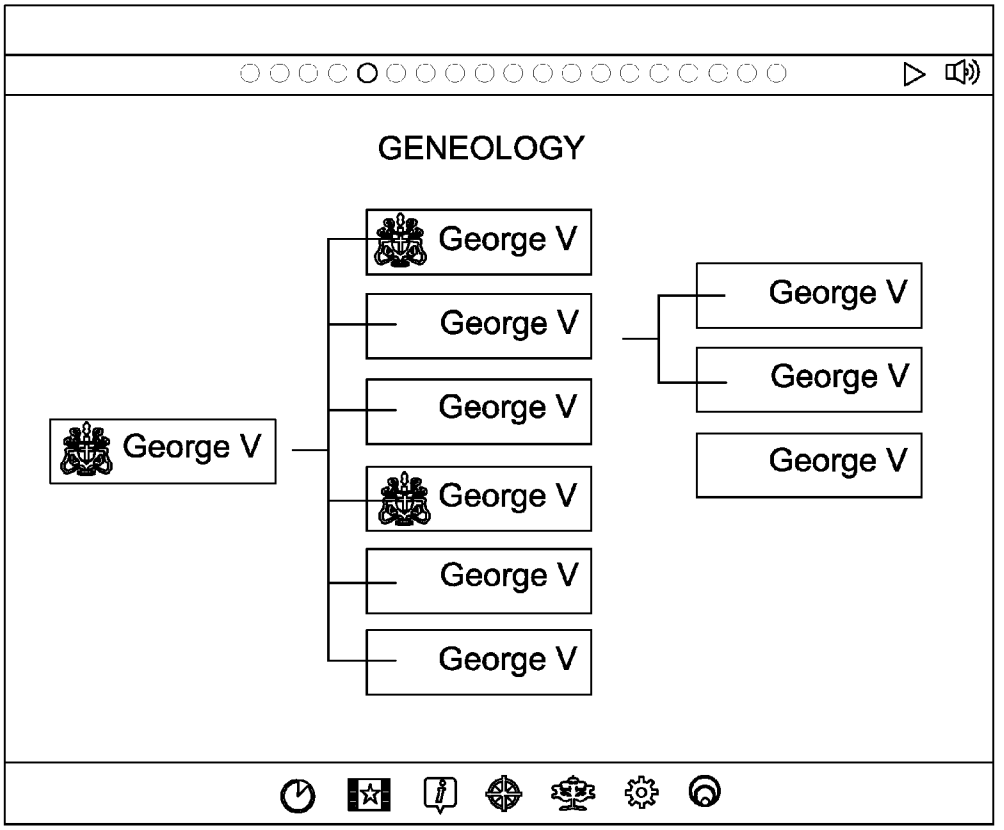
GENEOLOGY
George V
George V
George V
George V
George V
George V
George V
George V
George V

FIG. 14J

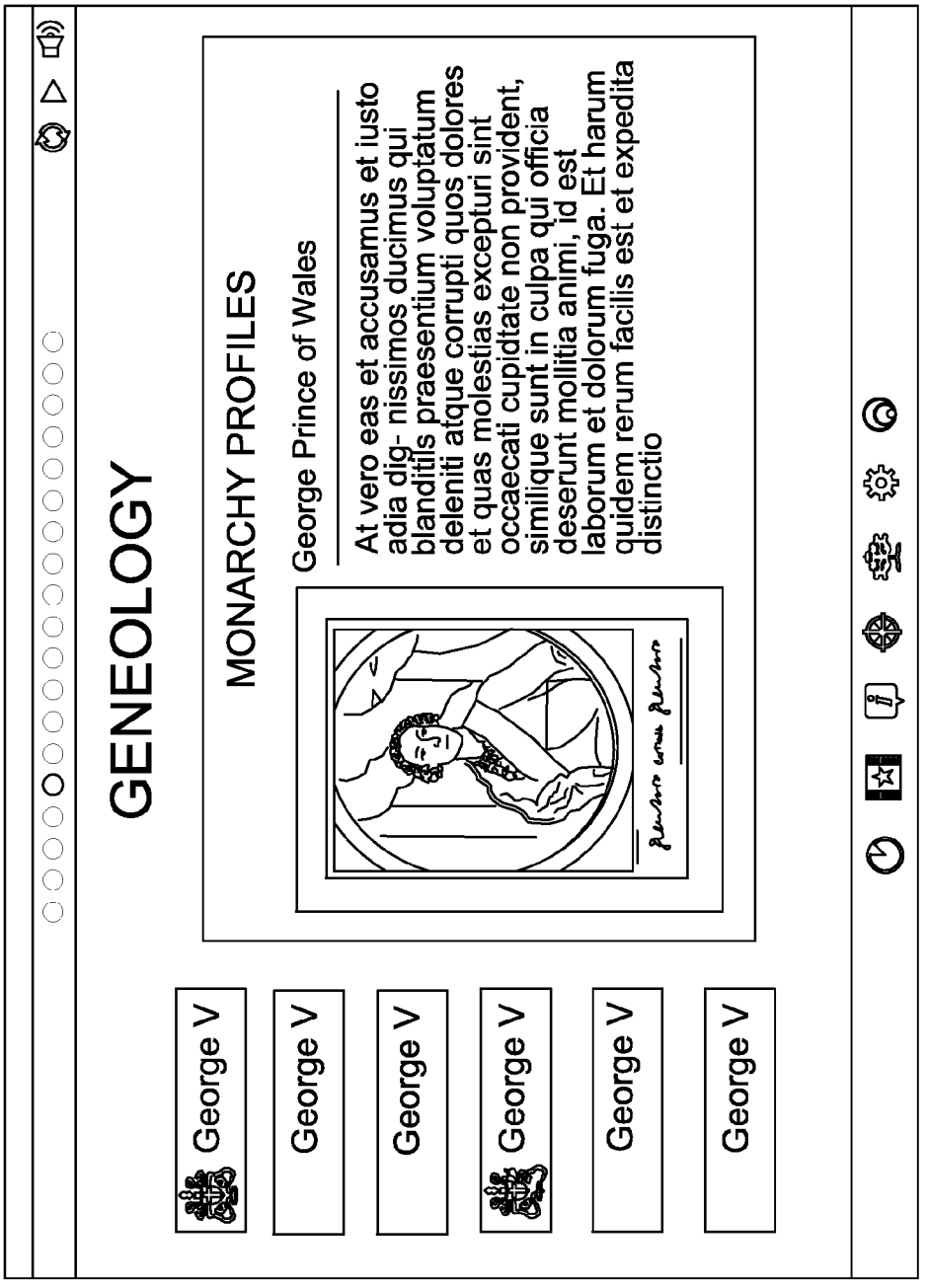
GENEOLOGY
MONARCHY PROFILES
George Prince of Wales
At vero eas et accusamus et iusto adia dig- nissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupidtate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio
George V
George V
George V
George V
George V
George V

FIG. 14K

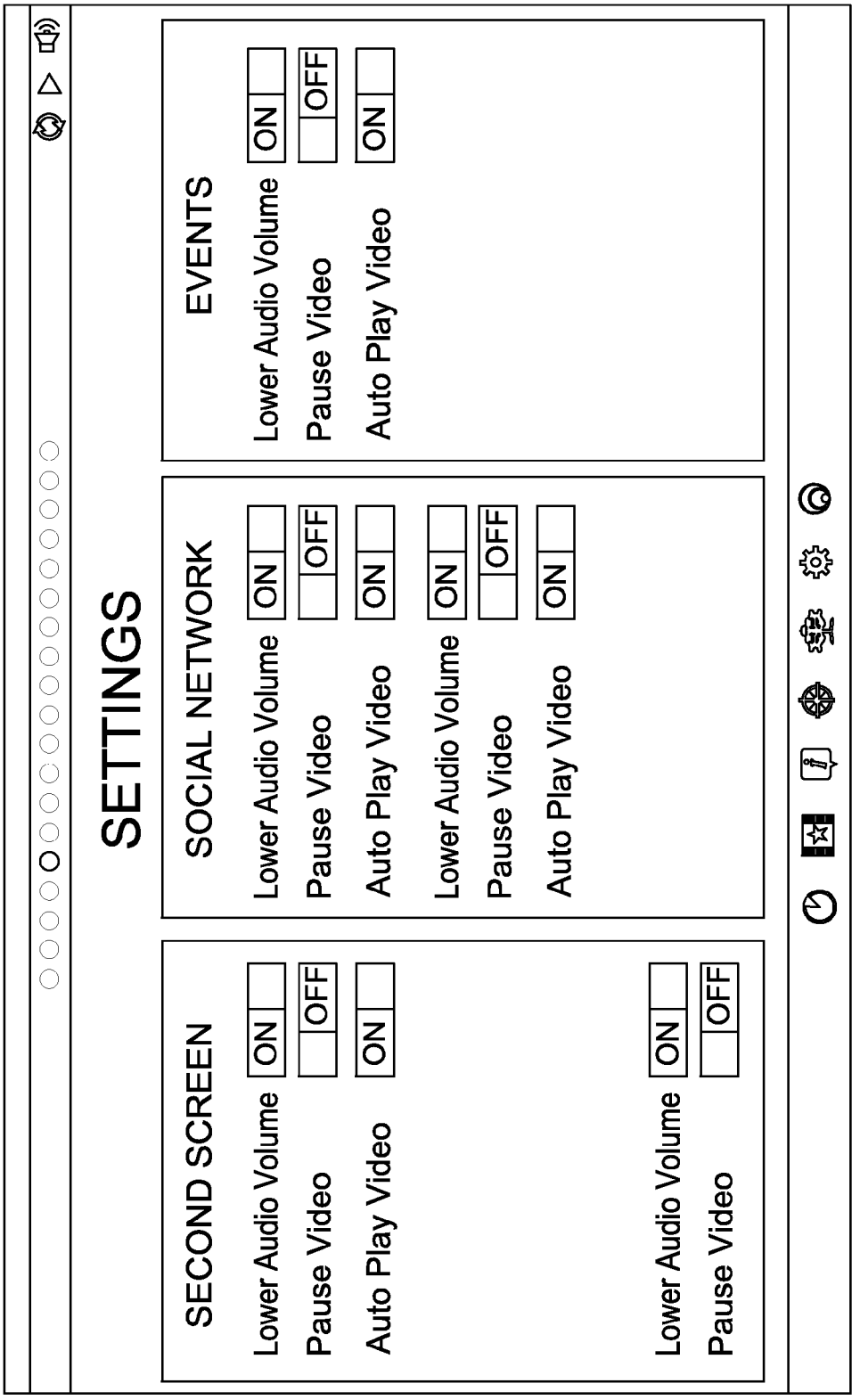
SETTINGS
SECOND SCREEN
Lower Audio Volume ON
Pause Video OFF
Auto Play Video ON
Lower Audio Volume ON
Pause Video OFF
SOCIAL NETWORK
Lower Audio Volume ON
Pause Video OFF
Auto Play Video ON
Lower Audio Volume ON
Pause Video OFF
Auto Play Video ON
EVENTS
Lower Audio Volume ON
Pause Video OFF
Auto Play Video ON

FIG. 14L

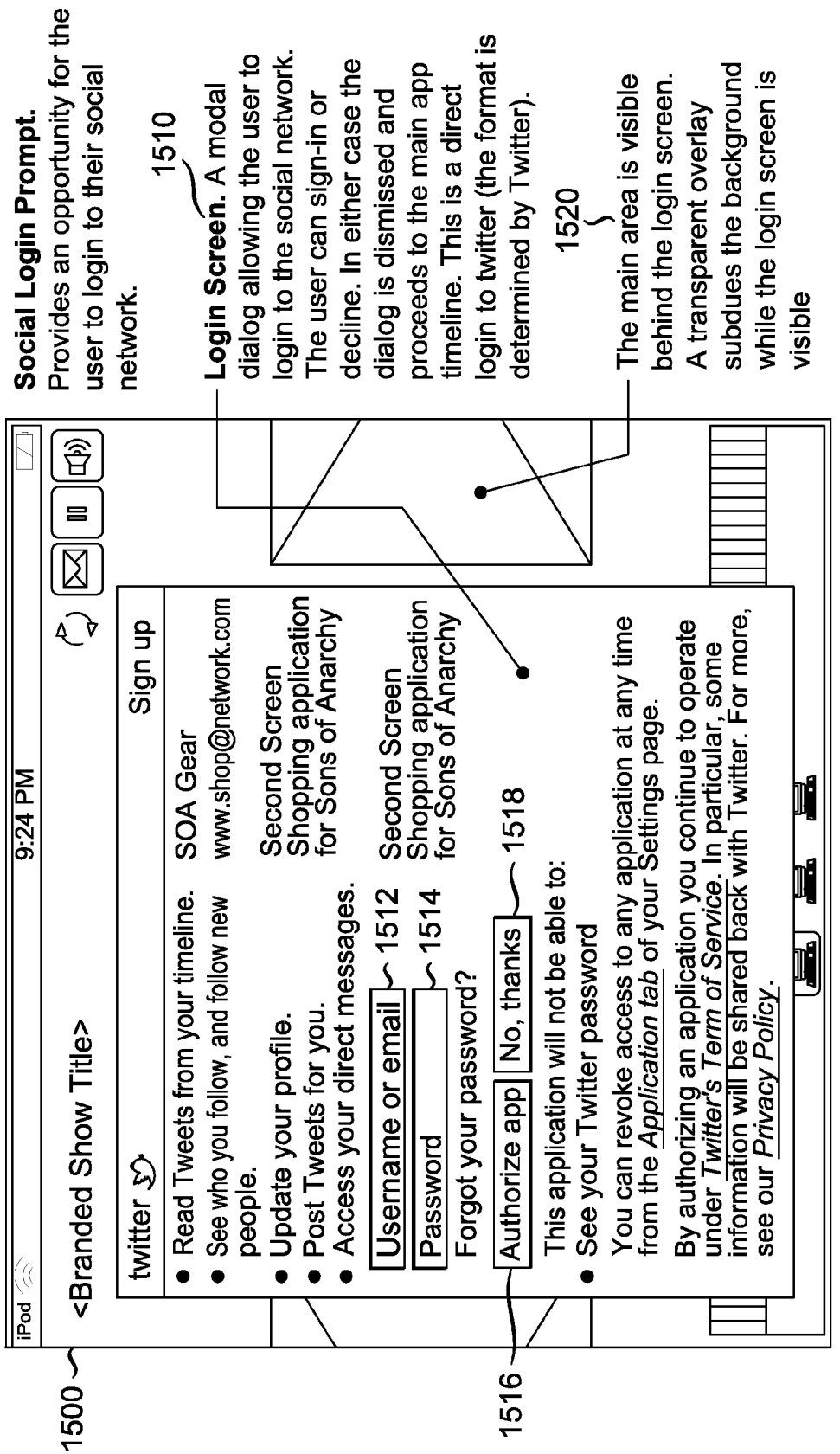
Social Login Prompt.
Provides an opportunity for the user to login to their social network.
1510
Login Screen. A modal dialog allowing the user to login to the social network. The user can sign-in or decline. In either case the dialog is dismissed and proceeds to the main app timeline. This is a direct login to twitter (the format is determined by Twitter).
1520
The main area is visible behind the login screen. A transparent overlay subdues the background while the login screen is visible
1500
iPod
9:24 PM
<Branded Show Title>
twitter
Sign up
Read Tweets from your timeline.
See who you follow, and follow new people.
Update your profile.
Post Tweets for you.
Access your direct messages.
SOA Gear
www.shop@network.com
Second Screen Shopping application for Sons of Anarchy
Username or email
1512
Password
1514
Forgot your password?
Second Screen Shopping application for Sons of Anarchy
1516
Authorize app
No, thanks
1518
This application will not be able to:
See your Twitter password
You can revoke access to any application at any time from the Application tab of your Settings page.
By authorizing an application you continue to operate under Twitter's Term of Service. In particular, some information will be shared back with Twitter. For more, see our Privacy Policy.

FIG. 15

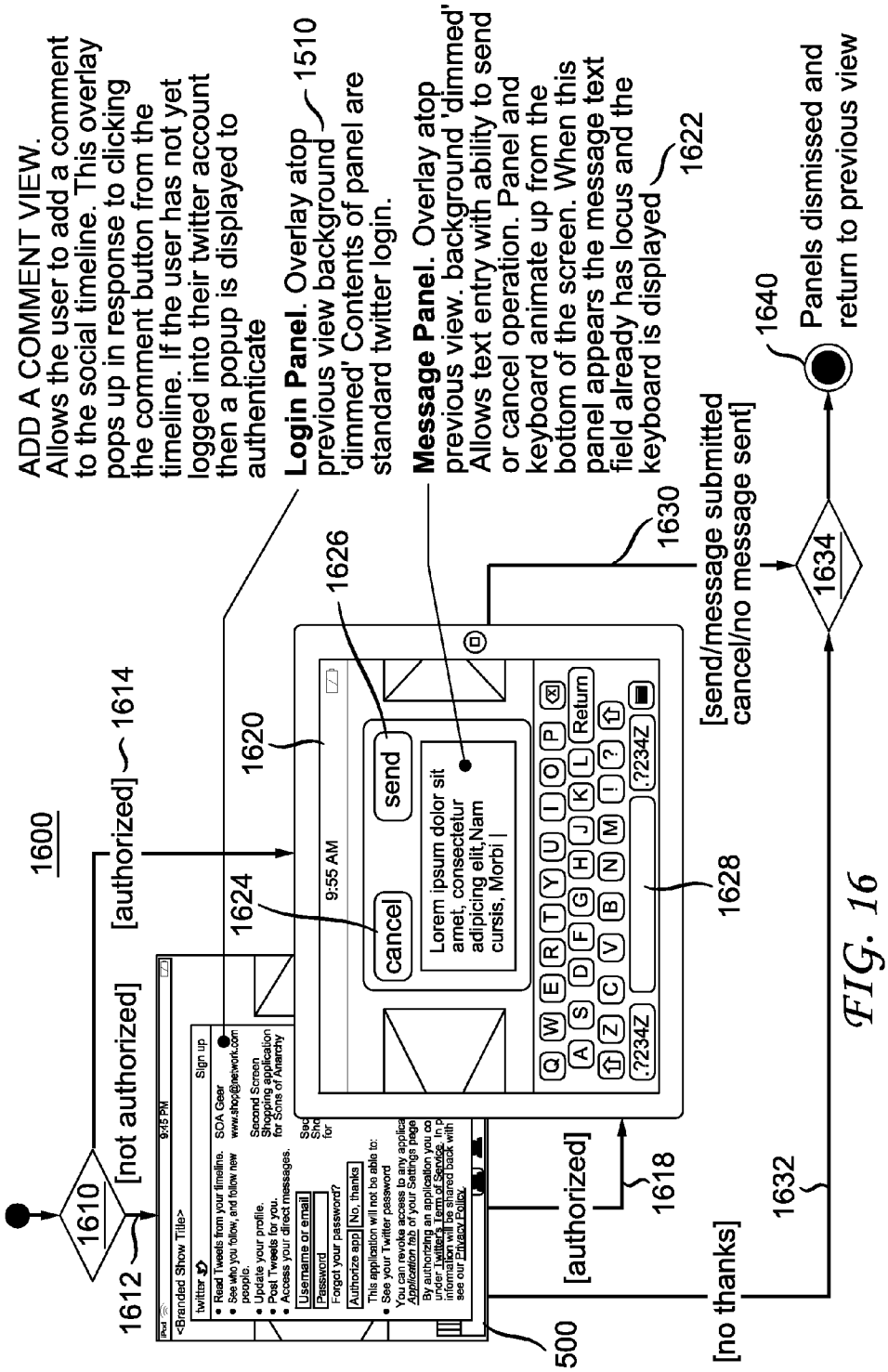
1600
ADD A COMMENT VIEW.
Allows the user to add a comment to the social timeline. This overlay pops up in response to clicking the comment button from the timeline. If the user has not yet logged into their twitter account then a popup is displayed to authenticate
Login Panel. Overlay atop previous view background 'dimmed' Contents of panel are standard twitter login.
1510
Message Panel. Overlay atop previous view. background 'dimmed' Allows text entry with ability to send or cancel operation. Panel and keyboard animate up from the bottom of the screen. When this panel appears the message text field already has locus and the keyboard is displayed
1622
1610
1612
[not authorized]
[authorized]
1614
1620
1624
1626
1628
1630
1618
1632
1634
1640
1500
[authorized]
[no thanks]
[send/message submitted cancel/no message sent]
Panels dismissed and return to previous view
9:45 PM
<Branded Show Title>
twitter
Sign up
Read Tweets from your timeline.
See who you follow, and follow new people.
Update your profile.
Post Tweets for you.
Access your direct messages.
SOA Gear
www.shop@network.com
Second Screen Shopping application for Sons of Anarchy
Username or email
Password
Forgot your password?
Authorize app
No, thanks
This application will not be able to:
See your Twitter password
You can revoke access to any applica
Application tab of your Settings page
By authorizing an application you co
under Twitter's Term of Service. In p
information will be shared back with
see our Privacy Policy.
9:55 AM
cancel
send
Lorem ipsum dolor sit amet, consectetur adipicing elit,Nam cursis, Morbi |
Return
.?234Z
.?234Z

FIG. 16

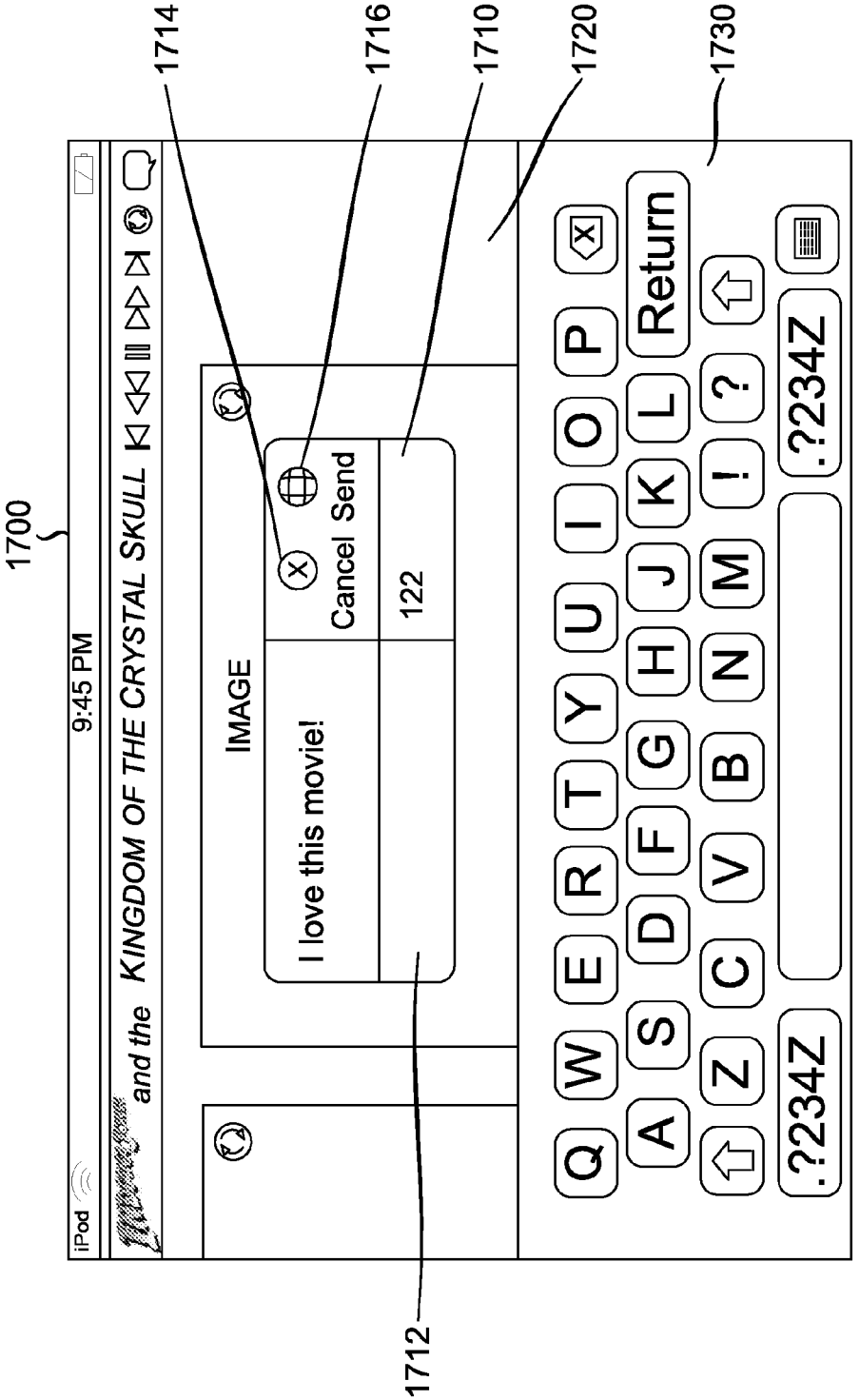
1700
1714
1716
1710
1720
1730
1712
iPod
9:45 PM
and the KINGDOM OF THE CRYSTAL SKULL
IMAGE
I love this movie!
Cancel
Send
122
Q W E R T Y U I O P
A S D F G H J K L Return
Z C V B N M ! ?
.?234Z
.?234Z

FIG. 17

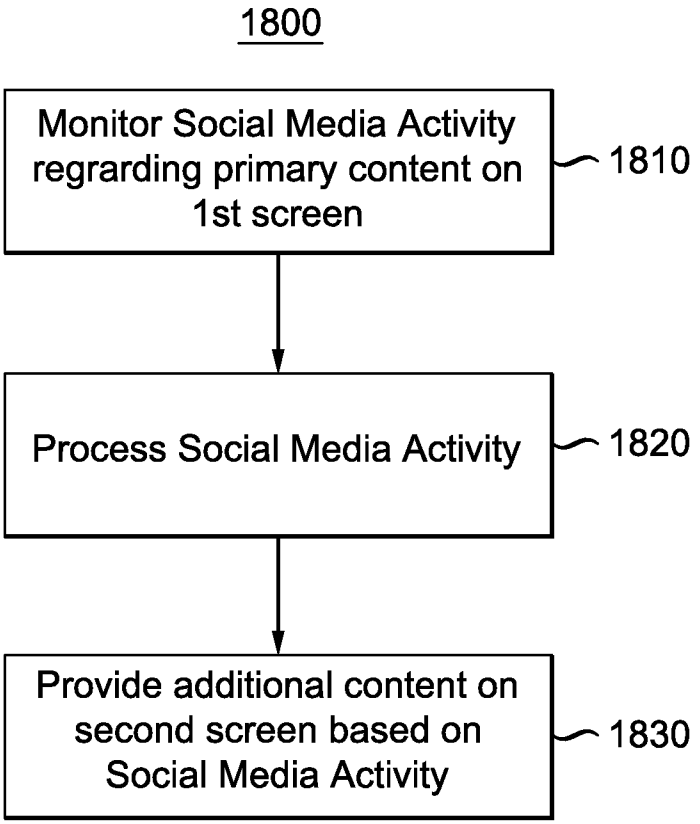
1800
Monitor Social Media Activity regrarding primary content on 1st screen
1810
Process Social Media Activity
1820
Provide additional content on second screen based on Social Media Activity
1830

FIG. 18

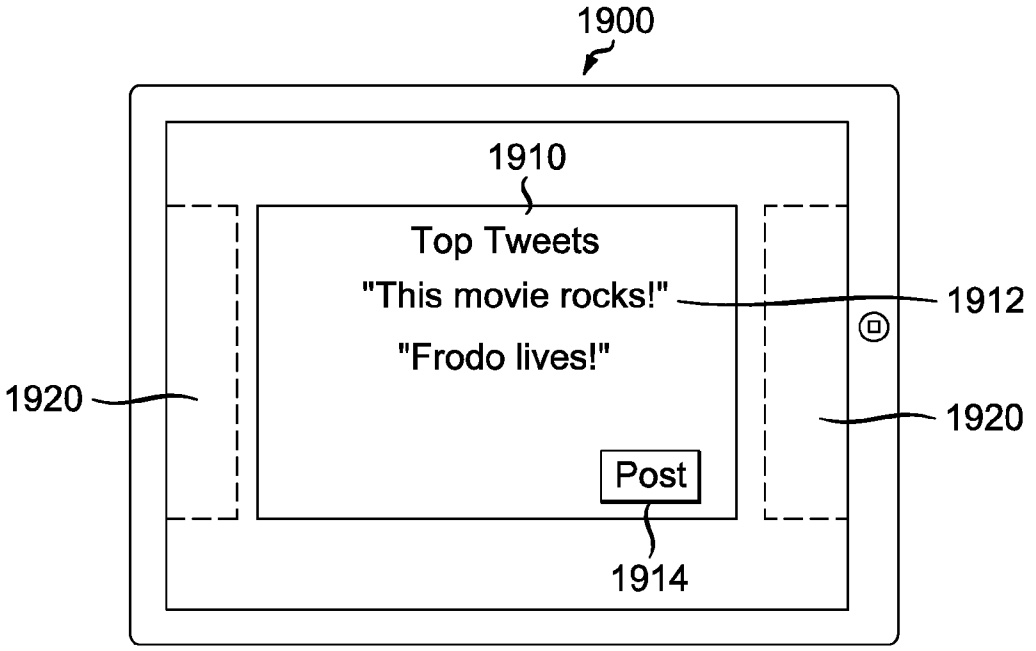
1900
1910
Top Tweets
"This movie rocks!"
"Frodo lives!"
1912
1920
1920
Post
1914

FIG. 19

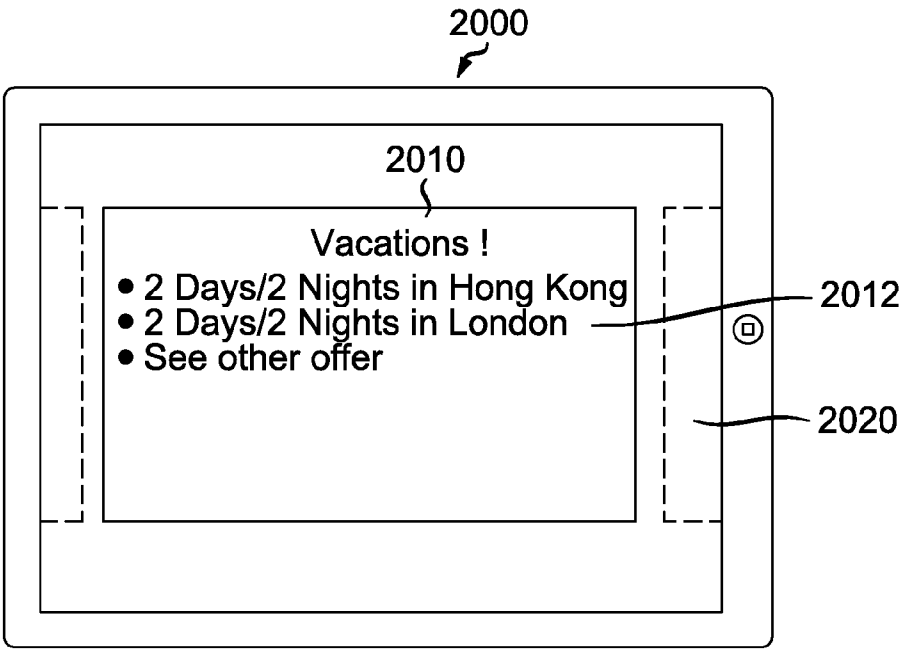
2000
2010
Vacations !
• 2 Days/2 Nights in Hong Kong
• 2 Days/2 Nights in London
• See other offer
2012
2020

FIG. 20

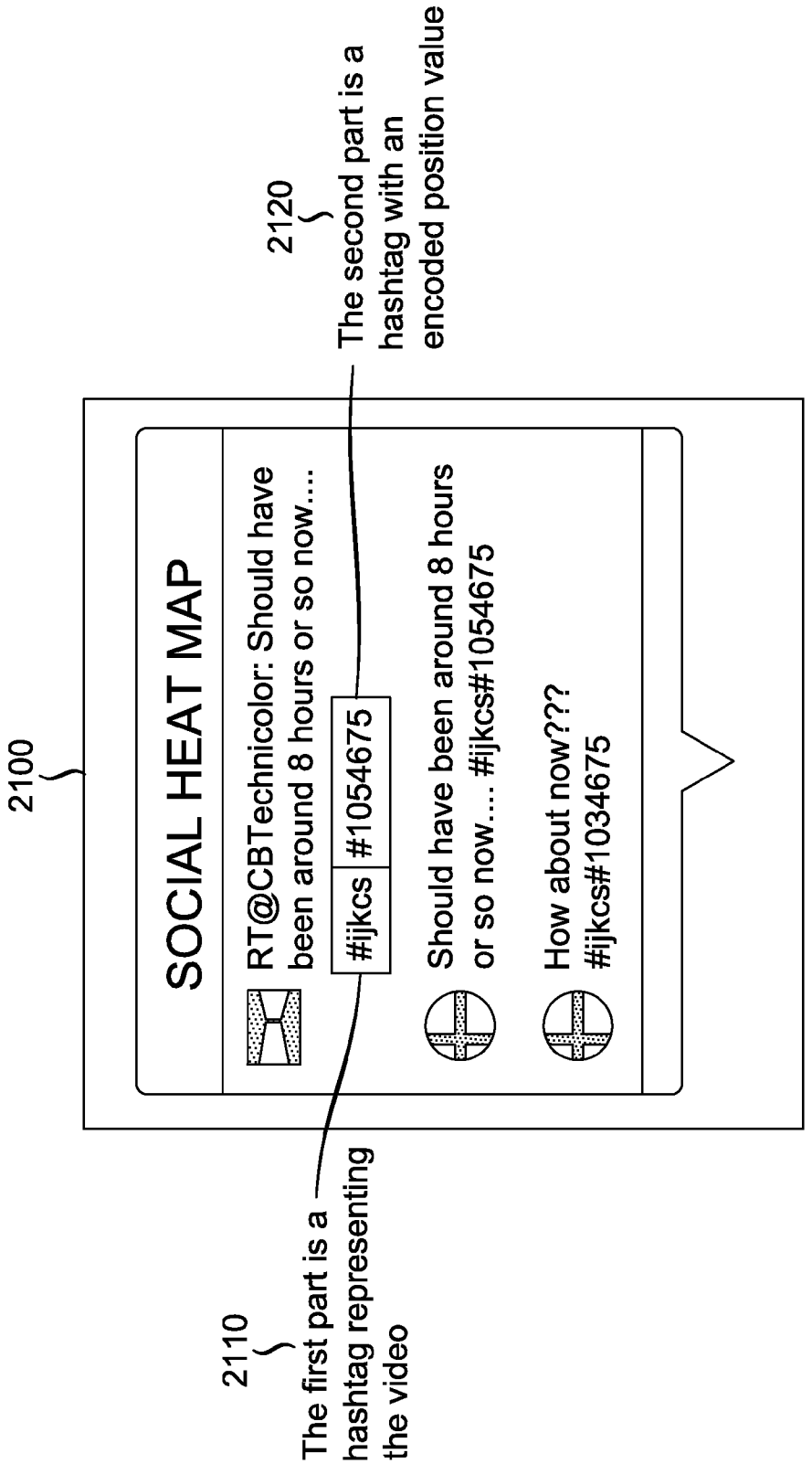
2100
SOCIAL HEAT MAP
RT@CBTechnicolor: Should have been around 8 hours or so now....
#ijkcs
#1054675
Should have been around 8 hours or so now.... #ijkcs#1054675
How about now???
#ijkcs#1034675
2110
The first part is a hashtag representing the video
2120
The second part is a hashtag with an encoded position value

FIG. 21

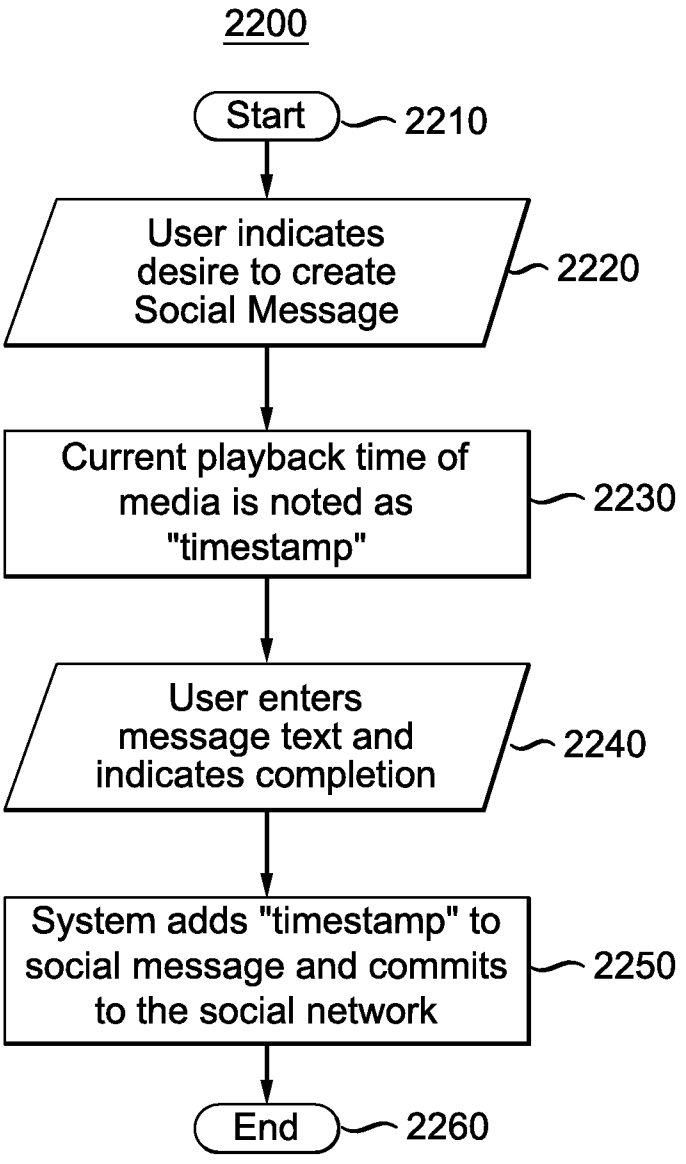
2200
Start
2210
User indicates desire to create Social Message
2220
Current playback time of media is noted as "timestamp"
2230
User enters message text and indicates completion
2240
System adds "timestamp" to social message and commits to the social network
2250
End
2260

FIG. 22

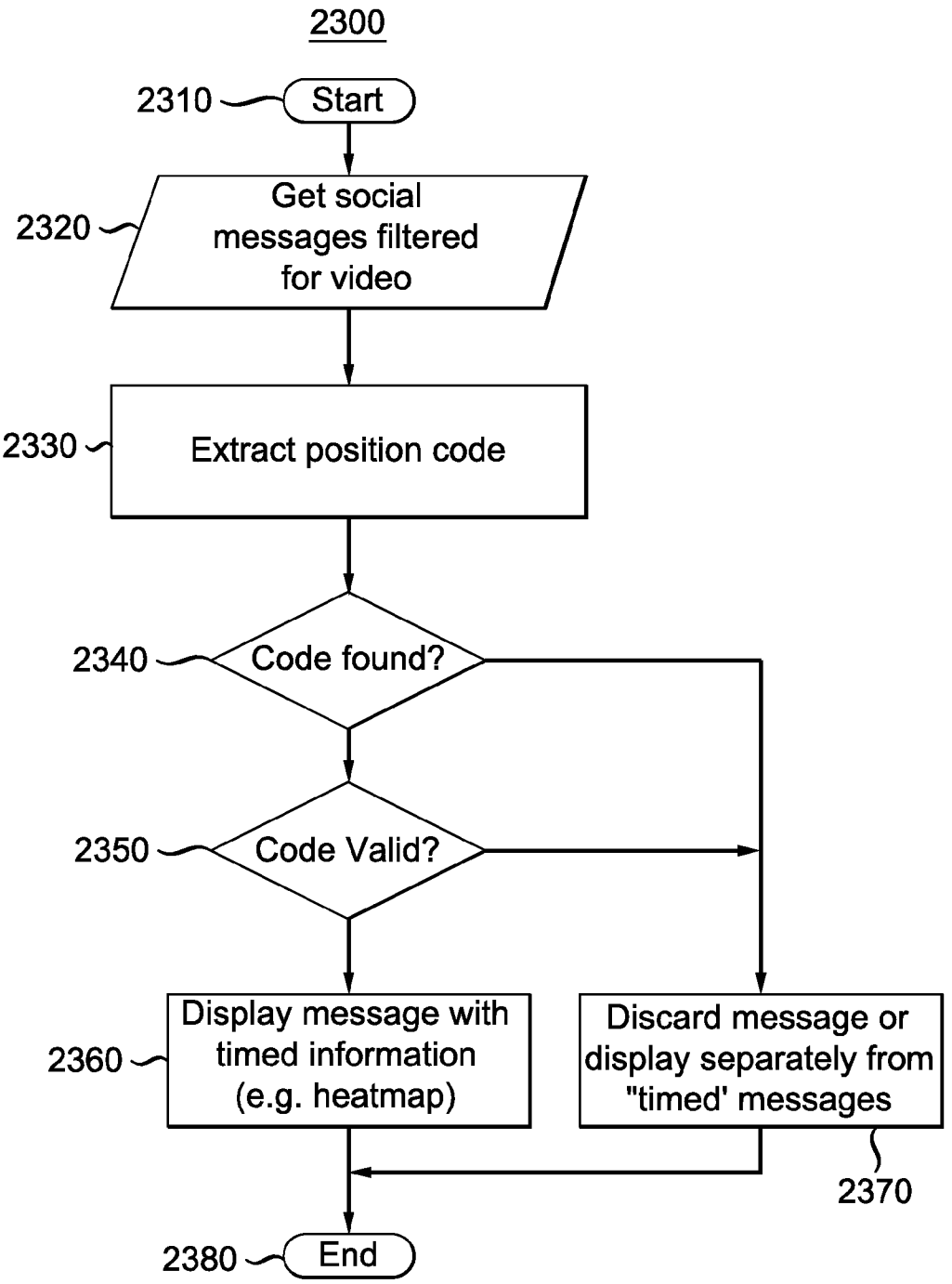
2300
2310
Start
2320
Get social messages filtered for video
2330
Extract position code
2340
Code found?
2350
Code Valid?
2360
Display message with timed information (e.g. heatmap)
Discard message or display separately from "timed' messages
2370
2380
End

FIG. 23

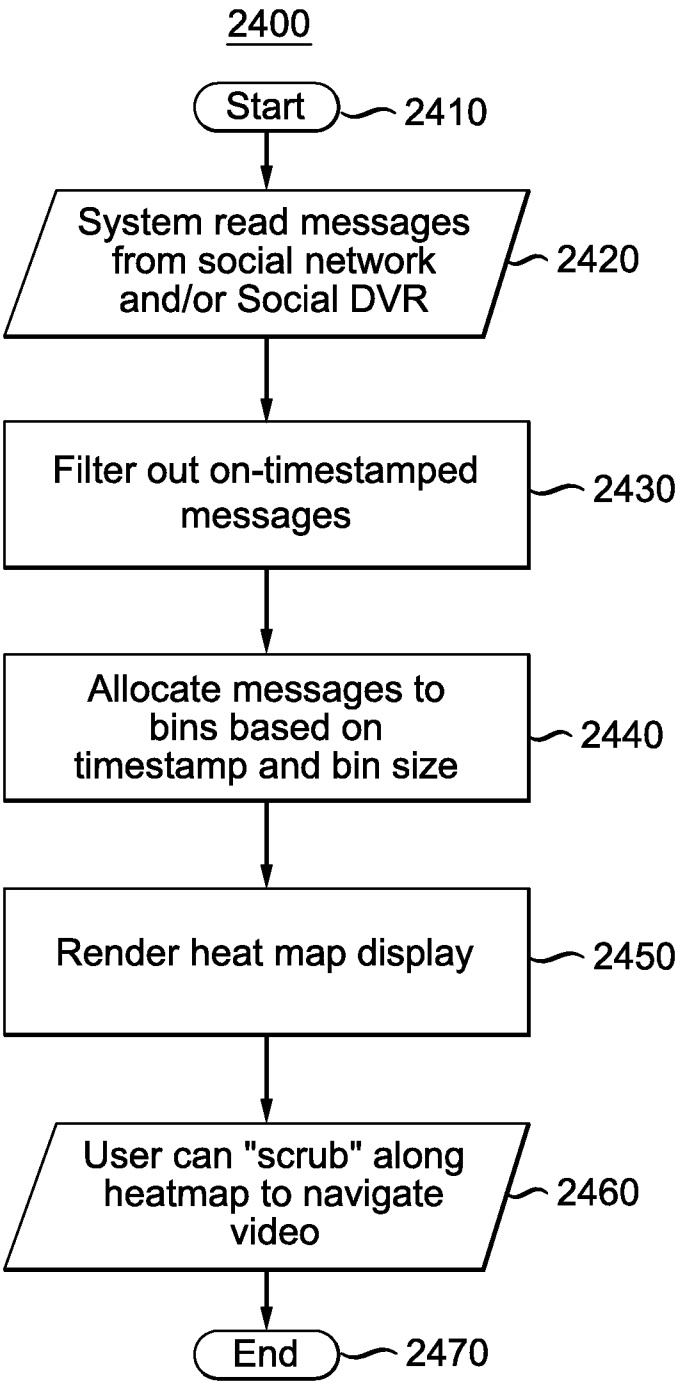
2400
Start
2410
System read messages from social network and/or Social DVR
2420
Filter out on-timestamped messages
2430
Allocate messages to bins based on timestamp and bin size
2440
Render heat map display
2450
User can "scrub" along heatmap to navigate video
2460
End
2470

FIG. 24

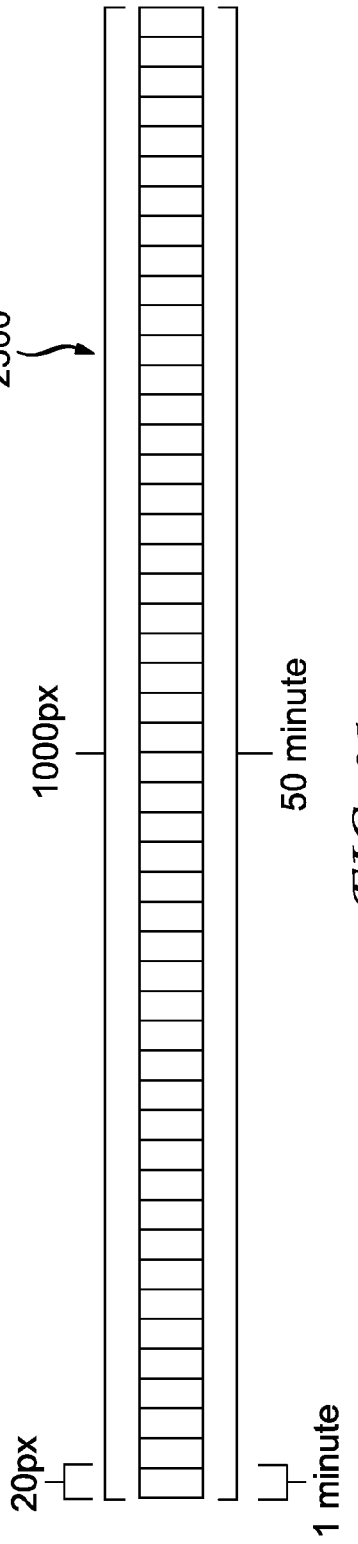
2500
1000px
50 minute
20px
1 minute

FIG. 25

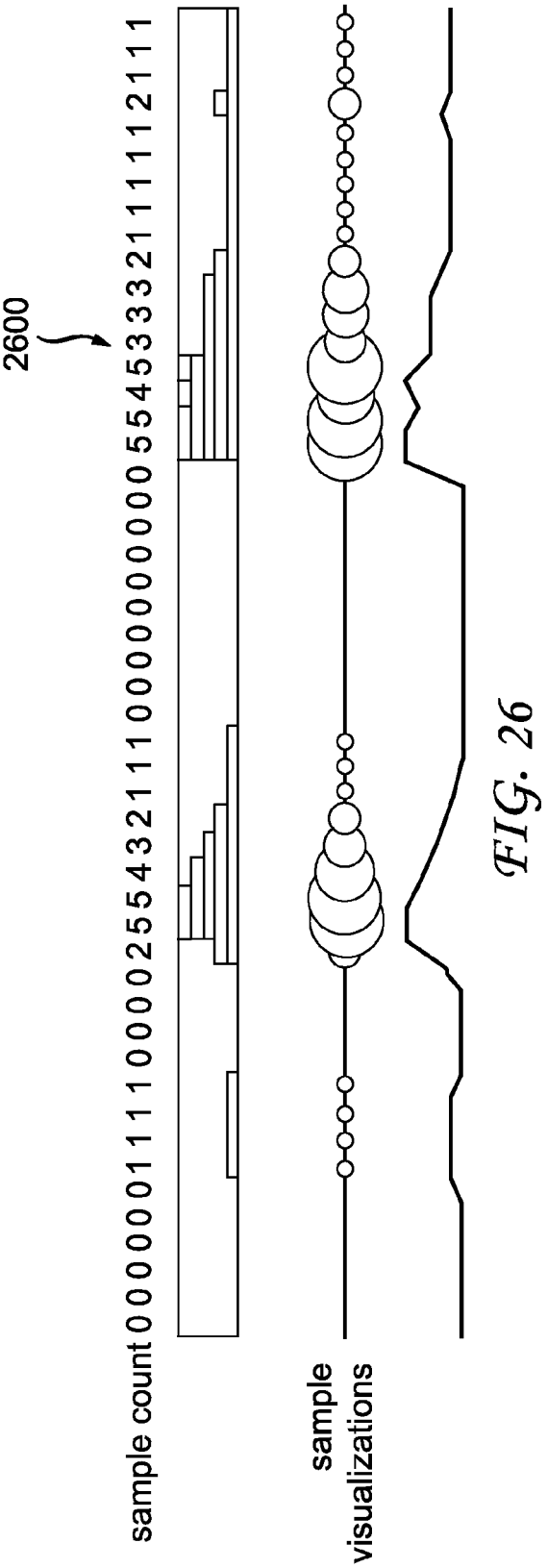
2600
sample count 0 0 0 0 0 0 0 1 1 1 1 0 0 0 0 2 5 5 4 3 2 1 1 1 0 0 0 0 0 0 0 0 0 0 0 5 5 4 5 3 3 3 2 1 1 1 1 1 2 1 1 1
sample visualizations

FIG. 26

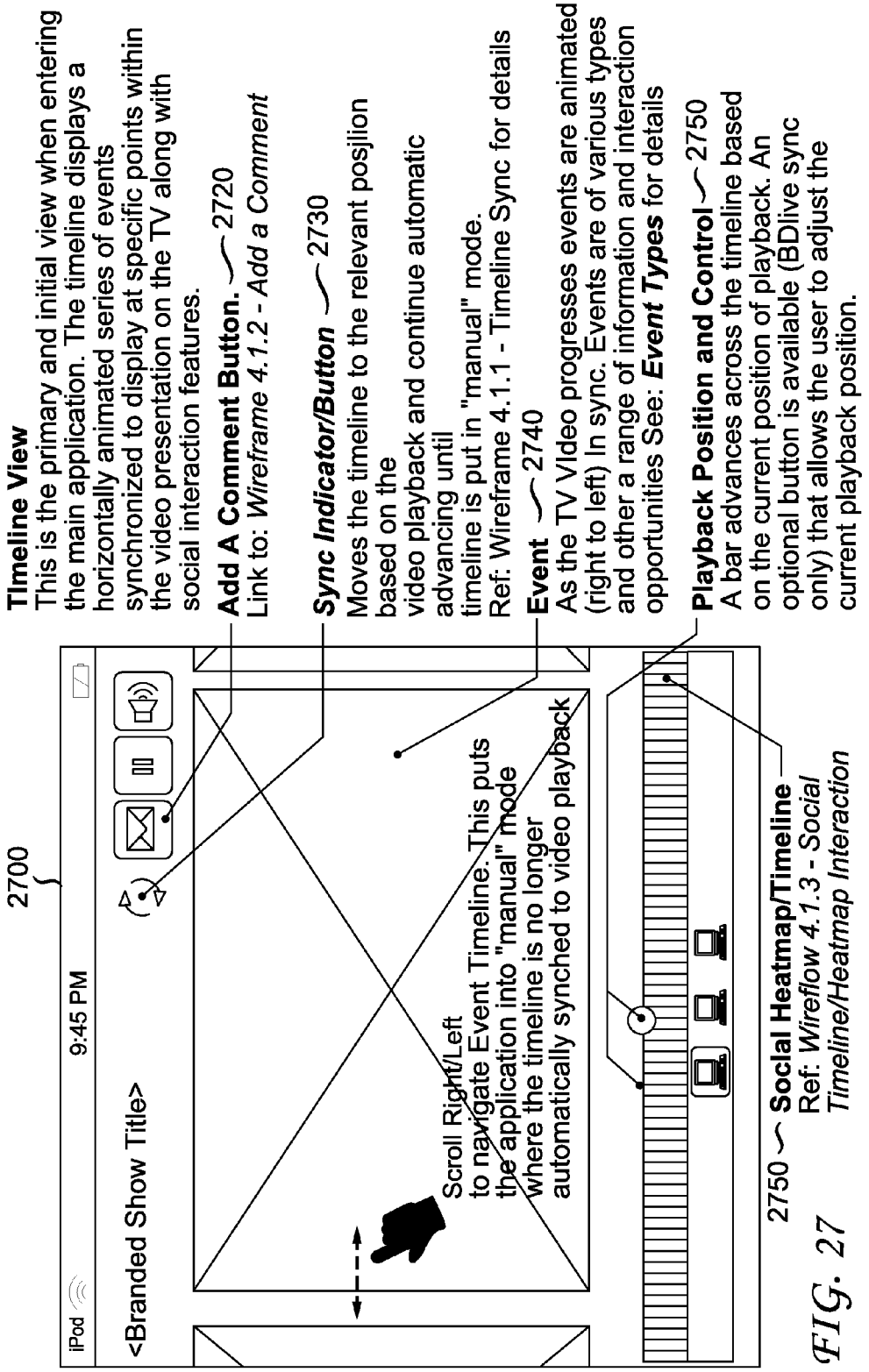
2700
iPod
9:45 PM
<Branded Show Title>
Scroll Right/Left to navigate Event Timeline. This puts the application into "manual" mode where the timeline is no longer automatically synched to video playback
2750 Social Heatmap/Timeline
Ref: Wireflow 4.1.3 - Social Timeline/Heatmap Interaction
Timeline View
This is the primary and initial view when entering the main application. The timeline displays a horizontally animated series of events synchronized to display at specific points within the video presentation on the TV along with social interaction features.
Add A Comment Button. 2720
Link to: Wireframe 4.1.2 - Add a Comment
Sync Indicator/Button 2730
Moves the timeline to the relevant posjlion based on the video playback and continue automatic advancing until timeline is put in "manual" mode.
Ref: Wireframe 4.1.1 - Timeline Sync for details
Event 2740
As the TV Vldeo progresses events are animated (right to left) In sync. Events are of various types and other a range of information and interaction opportunities See: Event Types for details
Playback Position and Control 2750
A bar advances across the timeline based on the current position of playback. An optional button is available (BDlive sync only) that allows the user to adjust the current playback position.

FIG. 27

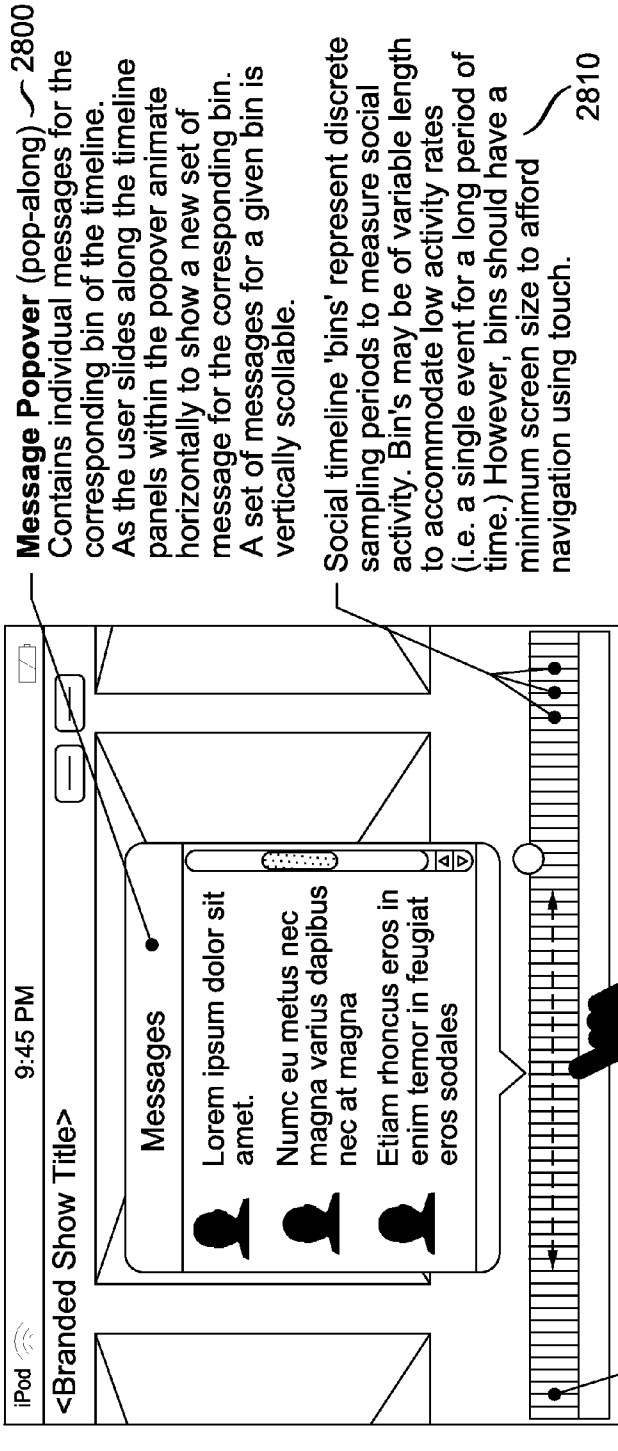
iPod
9:45 PM
<Branded Show Title>
Messages
Lorem ipsum dolor sit amet.
Numc eu metus nec magna varius dapibus nec at magna
Etiam rhoncus eros in enim temor in feugiat eros sodales
2750
Social Heatmap/Timeline
Divided into sections or "bins" representing social message activity for the show. The bin is colorized based on the message count for the bin relative to the maximum number of messages per bin.
2820
Tap Social Timeline to bring up popover containing messages relevant to that portion of the timeline
Scroll Right/Left to navigate Social Timeline
Tap Anywhere outside of timeline or popover to close popover
Message Popover (pop-along) 2800
Contains individual messages for the corresponding bin of the timeline. As the user slides along the timeline panels within the popover animate horizontally to show a new set of message for the corresponding bin. A set of messages for a given bin is vertically scollable.
Social timeline 'bins' represent discrete sampling periods to measure social activity. Bin's may be of variable length to accommodate low activity rates (i.e. a single event for a long period of time.) However, bins should have a minimum screen size to afford navigation using touch.
2810

FIG. 28

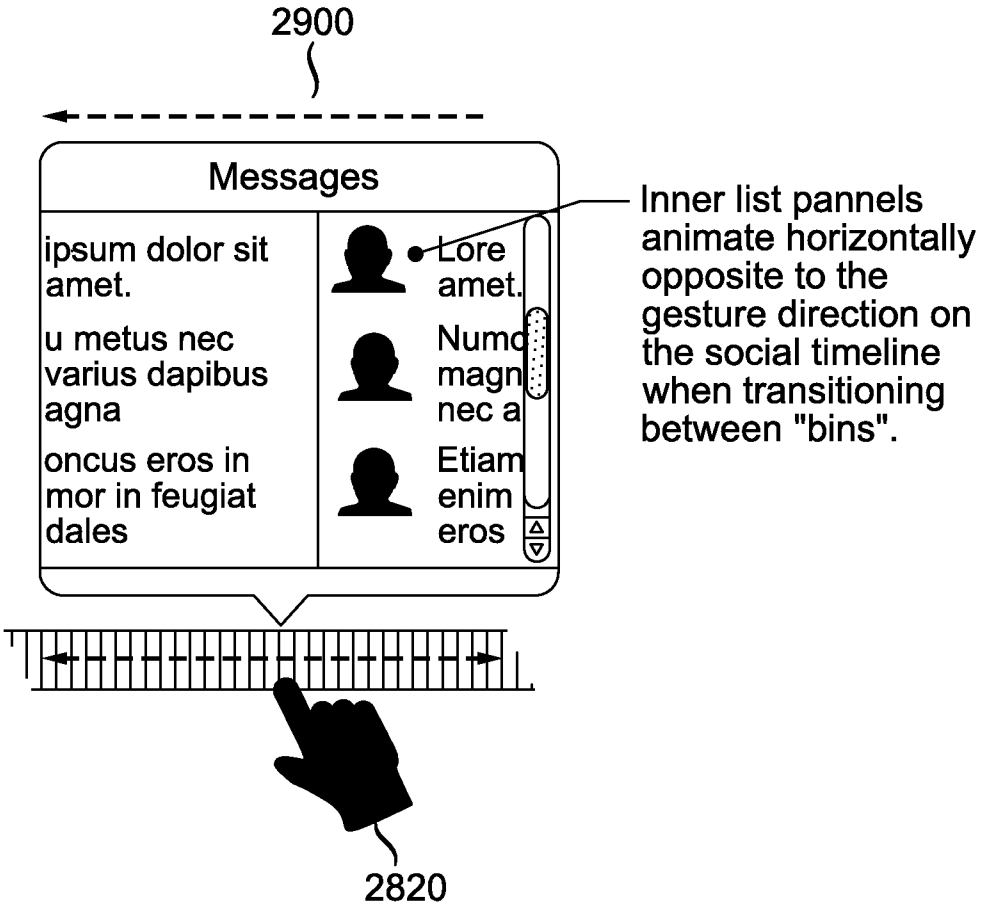
2900
Messages
ipsum dolor sit amet.
u metus nec varius dapibus agna
oncus eros in mor in feugiat dales
Lore amet.
Numc magn nec a
Etiam enim eros
Inner list pannels animate horizontally opposite to the gesture direction on the social timeline when transitioning between "bins".
2820

FIG. 29

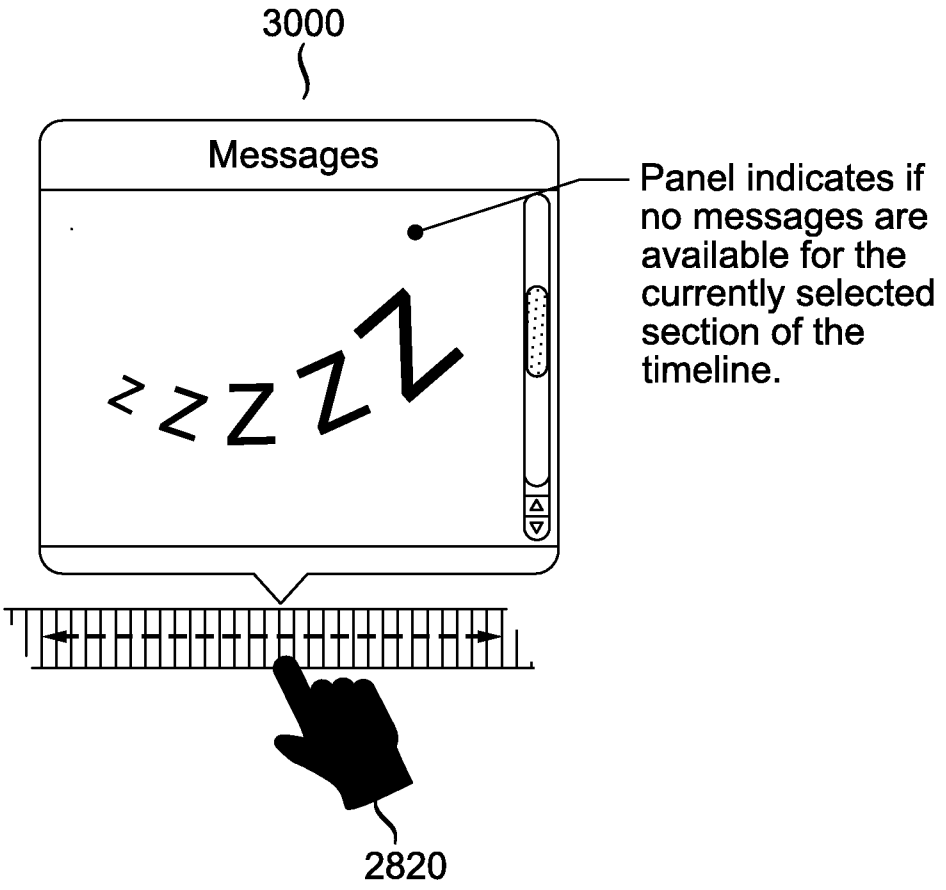
3000
Messages
Panel indicates if no messages are available for the currently selected section of the timeline.
2820

FIG. 30

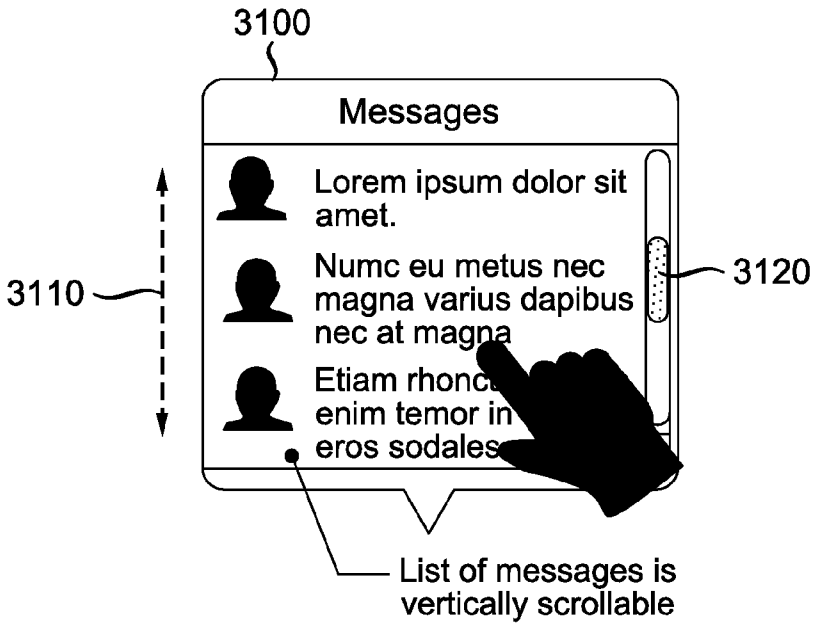
3100
Messages
Lorem ipsum dolor sit amet.
Numc eu metus nec magna varius dapibus nec at magna
Etiam rhonc
enim temor in
eros sodales
3110
3120
List of messages is vertically scrollable

FIG. 31

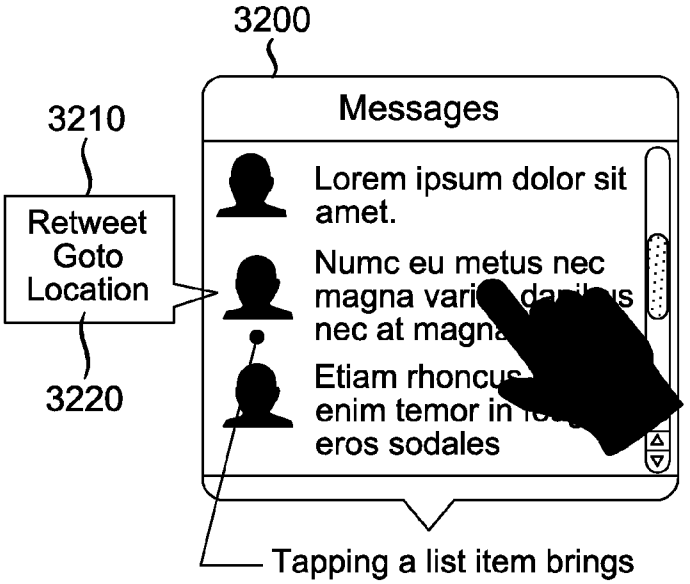
3200
Messages
3210
Retweet
Goto Location
3220
Lorem ipsum dolor sit amet.
Numc eu metus nec magna vari
nec at magn
Etiam rhoncu
enim temor in
eros sodales
Tapping a list item brings up an action menu.
"Retweet" simply retweets the selected message
"Goto Location" causes the video playback to move to the corresponding location. this option is only available for BDLive sync scenarios.

FIG. 32

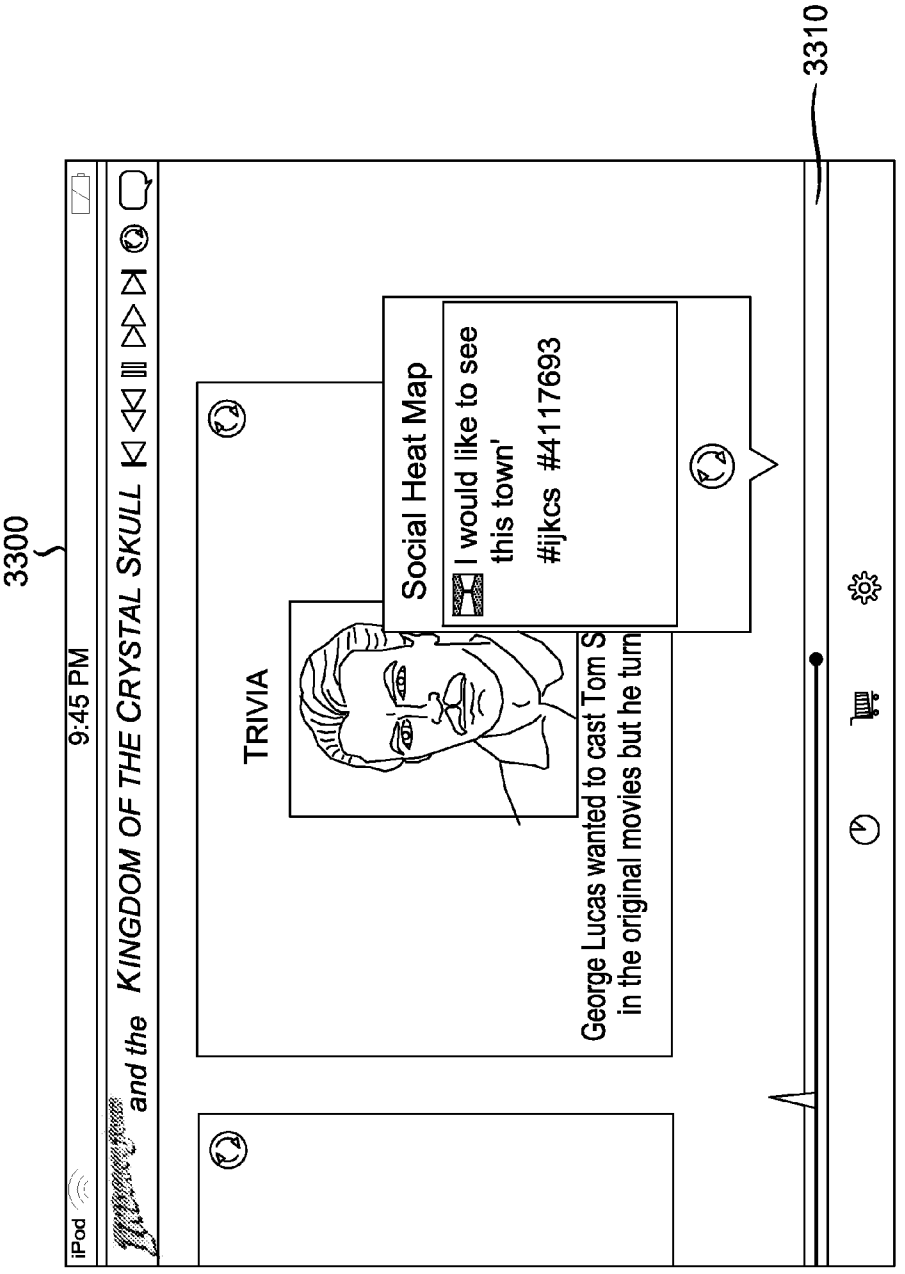
3300
3310
iPod
9:45 PM
and the KINGDOM OF THE CRYSTAL SKULL
TRIVIA
Social Heat Map
I would like to see this town'
#ijkcs #4117693
George Lucas wanted to cast Tom S in the original movies but he turn

FIG. 33

METHOD AND SYSTEM FOR PROVIDING A GRAPHICAL REPRESENTATION ON A SECOND SCREEN OF SOCIAL MESSAGES RELATED TO CONTENT ON A FIRST SCREEN

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application Ser. No. 61/584,134 filed Jan. 6, 2012 which is incorporated by reference herein in its entirety.

[0002] This application is also related to the applications entitled: "METHODS AND SYSTEMS FOR SYNCHONIZING CONTENT ON A SECOND SCREEN", "METHOD AND SYSTEM FOR SYNCHING SOCIAL MESSAGES WITH CONTENT TIMELINE", "METHOD AND SYSTEM FOR PROVIDING A DISPLAY OF SOCIAL MESSAGES ON A SECOND SCREEN WHICH IS SYNCHED WITH CONTENT ON A FIRST SCREEN", "ALTERNATE VIEW PLAYBACK ON A SECOND SCREEN", and "METHOD ANN SYSTEM FOR PROVIDING DYNAMIC ADVERTISING ON SECOND SCREEN BASED ON SOCIAL MESSAGES" which are have been filed concurrently and are incorporated by reference herein in their entirety.

BACKGROUND

[0003] 1. Technical Field

[0004] The present invention generally relates to providing additional content related to displayed content.

[0005] 2. Description of Related Art

[0006] Social messaging is becoming a ubiquitous feature across various software applications. One problem this presents is that the sheer quantity of messages can become overwhelming especially for popular topics. At some point the individual messages get lost in the crowd and the quantity of messages becomes the interesting social aspect. This disclosure describes a way to visualize the volume of social activity over time which can then be used to identify interesting points in time for media content and also be used to navigate to those points in time.

[0007] Many second-screen applications provide a social message "feed" that simply streams social messages as they happen. There is little organization of this information beyond displaying the most recent at the top of the list or perhaps the notion of a "promoted" message that advertisers use to keep their message at the top of the stack. Messages are quickly replaced by new messages sometimes faster than a user can scan them. Once the messages have been buried in the stack their effective relevance to time is diminished.

SUMMARY

[0008] The presented graphical representation referred to here as a Social Heatmap organizes social information to correspond with the timeline of a of a media item such as content being displayed on a first screen device.

[0009] In accordance with one embodiment, a method for providing a graphical representation of social messages on a second screen relating to content displayed on a first screen is provided. The method involves monitoring social media for one or more messages relating to content being displayed on a first screen, processing the one or more message relating to content being displayed on first screen device to associate message with a time segment of the content being displayed on the first screen, and providing a graphical representation of the one or more social messages associated with one or more time segments of the content being displayed on the first screen on the second screen.

[0010] In accordance with another embodiment, a second screen device capable of displaying a graphical representation of social messages associated with content being displayed on a first screen. The second screen device includes a screen, storage, and a processor. The screen is configured to display content. The storage is for storing data. The processor is configured to monitor social media for one or more messages relating to content being displayed on a first screen; process the one or more message relating to content being displayed on first screen device to associate message with a time segment of the content being displayed on the first screen, and provide a graphical representation of the one or more social messages associated with one or more time segments of the content being displayed on the first screen for display on the screen of the second screen device

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. **1** is a system diagram outlining the delivery of video and audio content to the home in accordance with one embodiment.

[0012] FIG. **2** is system diagram showing further detail of a representative set top box receiver.

[0013] FIG. **3** is a diagram depicting a touch panel control device in accordance with one embodiment.

[0014] FIG. **4** is a diagram depicting some exemplary user interactions for use with a touch panel control device in accordance with one embodiment.

[0015] FIG. **5** is system diagram depicting one embodiment of a system for implementing techniques of the present invention in accordance with one embodiment.

[0016] FIG. **6** is a flow diagram depicting an exemplary process in accordance with one embodiment.

[0017] FIG. **7** is a diagram depicting an exemplary methodology of synching between devices in accordance with one embodiment.

[0018] FIG. **8** is a diagram depicting an exemplary methodology of synching between devices in accordance with one embodiment.

[0019] FIGS. **9**A-**9**F are exemplary skeletal screen views depicting features in accordance with one embodiment when used in passive mode.

[0020] FIGS. **10**A-**10**D are exemplary skeletal screen views depicting features in accordance with one embodiment when used in active mode.

[0021] FIGS. **11**A-**11**C are exemplary skeletal views depicting a social media sharing feature in accordance with one embodiment.

[0022] FIGS. **12**A and **12**B are exemplary skeletal views depicting a content selection features in accordance with one embodiment.

[0023] FIGS. **13**A-**13**E are exemplary skeletal views depicting additional features in accordance with one embodiment.

[0024] FIGS. **14**A-**14**L are exemplary skinned screen views depicting how certain features could appear to a user.

[0025] FIG. **15** is a exemplary skeletal view depicting social media features in accordance with one embodiment.

[0026] FIG. **16** is a flow diagram depicting the functionality of social media features in accordance with one embodiment.

[0027] FIG. **17** is an exemplary skinned screen view depicting social media features in accordance with one embodiment.

[0028] FIG. **18** is a flow diagram providing a general methodology of providing content on a second screen based on social messages regarding content being displayed on a first screen in accordance with one embodiment.

[0029] FIG. **19** is an exemplary view of a social quote event in accordance with one embodiment.

[0030] FIG. **20** is an exemplary view of dynamic advertizing on a second screen based on social messages in accordance with one embodiment.

[0031] FIG. **21** is an exemplary view of how a social message can be associated with content in accordance with one embodiment.

[0032] FIG. **22** is flow diagram providing a methodology for generating a social message associated with content in accordance with one embodiment.

[0033] FIG. **23** is flow diagram providing a methodology for processing a social message associated with content in accordance with one embodiment.

[0034] FIG. **24** is flow diagram providing a methodology for providing a graphical representation of social messages associated with time periods of content in accordance with one embodiment.

[0035] FIG. **25** is an exemplary representation of bins that make up a graphical representation of social messages associated with time periods of content in accordance with one embodiment.

[0036] FIG. **26** is an exemplary representation of the association of messages to the bins that make up a graphical representation of social messages associated with time periods of content in accordance with one embodiment.

[0037] FIG. **27** is a exemplary skeletal view depicting a graphical representation of social messages associated with time periods of content in accordance with one embodiment.

[0038] FIG. **28** is an exemplary view of the operation of a graphical representation of social messages associated with time periods of content in accordance with one embodiment.

[0039] FIG. **29** is another exemplary view of the operation of a graphical representation of social messages associated with time periods of content in accordance with another embodiment.

[0040] FIG. **30** is another exemplary view of the operation of a graphical representation of social messages associated with time periods of content in accordance with another embodiment.

[0041] FIG. **31** is another exemplary view of the operation of a graphical representation of social messages associated with time periods of content in accordance with another embodiment.

[0042] FIG. **32** is another exemplary view of the operation of a graphical representation of social messages associated with time periods of content in accordance with another embodiment.

[0043] FIG. **33** is a exemplary skinned screen view depicting a graphical representation of social messages associated with time periods of content in accordance with one embodiment.

DETAILED DESCRIPTION

[0044] Turning now to FIG. **1**, a block diagram of an embodiment of a system **100** for delivering content to a home or end user is shown. The content originates from a content source **102**, such as a movie studio or production house. The content may be supplied in at least one of two forms. One form may be a broadcast form of content. The broadcast content is provided to the broadcast affiliate manager **104**, which is typically a national broadcast service, such as the American Broadcasting Company (ABC), National Broadcasting Company (NBC), Columbia Broadcasting System (CBS), etc. The broadcast affiliate manager may collect and store the content, and may schedule delivery of the content over a deliver network, shown as delivery network 1 (**106**). Delivery network 1 (**106**) may include satellite link transmission from a national center to one or more regional or local centers. Delivery network 1 (**106**) may also include local content delivery using local delivery systems such as over the air broadcast, satellite broadcast, or cable broadcast. The locally delivered content is provided to a receiving device **108** in a user's home, where the content will subsequently be searched by the user. It is to be appreciated that the receiving device **108** can take many forms and may be embodied as a set top box/digital video recorder (DVR), a gateway, a modem, etc. Further, the receiving device **108** may act as entry point, or gateway, for a home network system that includes additional devices configured as either client or peer devices in the home network.

[0045] A second form of content is referred to as special or additional content. Special or additional content may include content delivered as premium viewing, pay-per-view, or other content otherwise not provided to the broadcast affiliate manager, e.g., movies, video games or other video elements. In many cases, the special content may be content requested by the user. The special content may be delivered to a content manager **110**. The content manager **110** may be a service provider, such as an Internet website, affiliated, for instance, with a content provider, broadcast service, or delivery network service. The content manager **110** may also incorporate Internet content into the delivery system. The content manager **110** may deliver the content to the user's receiving device **108** over a separate delivery network, delivery network 2 (**112**). Delivery network 2 (**112**) may include high-speed broadband Internet type communications systems. It is important to note that the content from the broadcast affiliate manager **104** may also be delivered using all or parts of delivery network 2 (**112**) and content from the content manager **110** may be delivered using all or parts of delivery network 1 (**106**). In addition, the user may also obtain content directly from the Internet via delivery network 2 (**112**) without necessarily having the content managed by the content manager **110**.

[0046] Several adaptations for utilizing the separately delivered additional content may be possible. In one possible approach, the additional content is provided as an augmentation to the broadcast content, providing alternative displays, purchase and merchandising options, enhancement material, etc. In another embodiment, the additional content may completely replace some programming content provided as broadcast content. Finally, the additional content may be completely separate from the broadcast content, and may simply be a media alternative that the user may choose to utilize. For instance, the additional content may be a library of movies that are not yet available as broadcast content.

[0047] The receiving device **108** may receive different types of content from one or both of delivery network 1 and delivery network 2. The receiving device **108** processes the content, and provides a separation of the content based on

user preferences and commands. The receiving device **108** may also include a storage device, such as a hard drive or optical disk drive, for recording and playing back audio and video content. Further details of the operation of the receiving device **108** and features associated with playing back stored content will be described below in relation to FIG. **2**. The processed content is provided to a display device **114**. The display device **114** may be a conventional 2-D type display or may alternatively be an advanced 3-D display.

[0048] The receiving device **108** may also be interfaced to a second screen such as a touch screen control device **116**. The touch screen control device **116** may be adapted to provide user control for the receiving device **108** and/or the display device **114**. The touch screen device **116** may also be capable of displaying video content. The video content may be graphics entries, such as user interface entries, or may be a portion of the video content that is delivered to the display device **114**. The touch screen control device **116** may interface to receiving device **108** using any well known signal transmission system, such as infra-red (IR) or radio frequency (RF) communications and may include standard protocols such as infra-red data association (IRDA) standard, Wi-Fi, Bluetooth and the like, or any other proprietary protocols. In some embodiments, the touch screen control device **116** can be interfaced directly with delivery networks 1 and 2. Operations of touch screen control device **116** will be described in further detail below.

[0049] In the example of FIG. **1**, the system **100** also includes a back end server **118** and a usage database **120**. The back end server **118** includes a personalization engine that analyzes the usage habits of a user and makes recommendations based on those usage habits. The usage database **120** is where the usage habits for a user are stored. In some cases, the usage database **120** may be part of the back end server **118** *a*. In the present example, the back end server **118** (as well as the usage database **120**) is connected to the system the system **100** and accessed through the delivery network 2 (**112**).

[0050] Turning now to FIG. **2**, a block diagram of an embodiment of a receiving device **200** is shown. Receiving device **200** may operate similar to the receiving device described in FIG. **1** and may be included as part of a gateway device, modem, set-top box, or other similar communications device. The device **200** shown may also be incorporated into other systems including an audio device or a display device. In either case, several components necessary for complete operation of the system are not shown in the interest of conciseness, as they are well known to those skilled in the art.

[0051] In the device **200** shown in FIG. **2**, the content is received by an input signal receiver **202**. The input signal receiver **202** may be one of several known receiver circuits used for receiving, demodulation, and decoding signals provided over one of the several possible networks including over the air, cable, satellite, Ethernet, fiber and phone line networks. The desired input signal may be selected and retrieved by the input signal receiver **202** based on user input provided through a control interface or touch panel interface **222**. Touch panel interface **222** may include an interface for a touch screen device. Touch panel interface **222** may also be adapted to interface to a cellular phone, a tablet, a mouse, a high end remote or the like.

[0052] The decoded output signal is provided to an input stream processor **204**. The input stream processor **204** performs the final signal selection and processing, and includes separation of video content from audio content for the content stream. The audio content is provided to an audio processor **206** for conversion from the received format, such as compressed digital signal, to an analog waveform signal. The analog waveform signal is provided to an audio interface **208** and further to the display device or audio amplifier. Alternatively, the audio interface **208** may provide a digital signal to an audio output device or display device using a High-Definition Multimedia Interface (HDMI) cable or alternate audio interface such as via a Sony/Philips Digital Interconnect Format (SPDIF). The audio interface may also include amplifiers for driving one more sets of speakers. The audio processor **206** also performs any necessary conversion for the storage of the audio signals.

[0053] The video output from the input stream processor **204** is provided to a video processor **210**. The video signal may be one of several formats. The video processor **210** provides, as necessary a conversion of the video content, based on the input signal format. The video processor **210** also performs any necessary conversion for the storage of the video signals.

[0054] A storage device **212** stores audio and video content received at the input. The storage device **212** allows later retrieval and playback of the content under the control of a controller **214** and also based on commands, e.g., navigation instructions such as fast-forward (FF) and rewind (Rew), received from a user interface **216** and/or touch panel interface **222**. The storage device **212** may be a hard disk drive, one or more large capacity integrated electronic memories, such as static RAM (SRAM), or dynamic RAM (DRAM), or may be an interchangeable optical disk storage system such as a compact disk (CD) drive or digital video disk (DVD) drive.

[0055] The converted video signal, from the video processor **210**, either originating from the input or from the storage device **212**, is provided to the display interface **218**. The display interface **218** further provides the display signal to a display device of the type described above. The display interface **218** may be an analog signal interface such as red-green-blue (RGB) or may be a digital interface such as HDMI. It is to be appreciated that the display interface **218** will generate the various screens for presenting the search results in a three dimensional grid as will be described in more detail below.

[0056] The controller **214** is interconnected via a bus to several of the components of the device **200**, including the input stream processor **202**, audio processor **206**, video processor **210**, storage device **212**, and a user interface **216**. The controller **214** manages the conversion process for converting the input stream signal into a signal for storage on the storage device or for display. The controller **214** also manages the retrieval and playback of stored content. Furthermore, as will be described below, the controller **214** performs searching of content and the creation and adjusting of the grid display representing the content, either stored or to be delivered via the delivery networks, described above.

[0057] The controller **214** is further coupled to control memory **220** (e.g., volatile or nonvolatile memory, including RAM, SRAM, DRAM, ROM, programmable ROM (PROM), flash memory, electronically programmable ROM (EPROM), electronically erasable programmable ROM (EEPROM), etc.) for storing information and instruction code for controller **214**. Control memory **220** may store instructions for controller **214**. Control memory may also store a database of elements, such as graphic elements containing content. The database may be stored as a pattern of graphic elements. Alternatively, the memory may store the graphic elements in

identified or grouped memory locations and use an access or location table to identify the memory locations for the various portions of information related to the graphic elements. Additional details related to the storage of the graphic elements will be described below. Further, the implementation of the control memory **220** may include several possible embodiments, such as a single memory device or, alternatively, more than one memory circuit communicatively connected or coupled together to form a shared or common memory. Still further, the memory may be included with other circuitry, such as portions of bus communications circuitry, in a larger circuit.

[0058] The user interface process of the present disclosure employs an input device that can be used to express functions, such as fast forward, rewind, etc. To allow for this, a touch panel device **300** may be interfaced via the user interface **216** and/or touch panel interface **222** of the receiving device **200**, as shown in FIG. **3**. The touch panel device **300** allows operation of the receiving device or set top box based on hand movements, or gestures, and actions translated through the panel into commands for the set top box or other control device. In one embodiment, the touch panel **300** may simply serve as a navigational tool to navigate the grid display. In other embodiments, the touch panel **300** will additionally serve as the display device allowing the user to more directly interact with the navigation through the grid display of content. The touch panel device may be included as part of a remote control device containing more conventional control functions such as actuator or activator buttons. The touch panel **300** can also includes at least one camera element. In some embodiments, the touch panel **300** may also include a microphone.

[0059] Turning now to FIG. **4**, the use of a gesture sensing controller or touch screen, such as shown, provides for a number of types of user interaction. The inputs from the controller are used to define gestures and the gestures, in turn, define specific contextual commands. The configuration of the sensors may permit defining movement of a user's fingers on a touch screen or may even permit defining the movement of the controller itself in either one dimension or two dimensions. Two-dimensional motion, such as a diagonal, and a combination of yaw, pitch and roll can be used to define any three-dimensional motion, such as a swing. A number of gestures are illustrated in FIG. **4**. Gestures are interpreted in context and are identified by defined movements made by the user.

[0060] Bumping **420** is defined by a two-stroke drawing indicating pointing in one direction, either up, down, left or right. The bumping gesture is associated with specific commands in context. For example, in a TimeShifting mode, a left-bump gesture **420** indicates rewinding, and a right-bump gesture indicates fast-forwarding. In other contexts, a bump gesture **420** is interpreted to increment a particular value in the direction designated by the bump. Checking **440** is defined as in drawing a checkmark. It is similar to a downward bump gesture **420**. Checking is identified in context to designate a reminder, user tag or to select an item or element. Circling **440** is defined as drawing a circle in either direction. It is possible that both directions could be distinguished. However, to avoid confusion, a circle is identified as a single command regardless of direction. Dragging **450** is defined as an angular movement of the controller (a change in pitch and/or yaw) while pressing a button (virtual or physical) on the tablet **300** (i.e., a "trigger drag"). The dragging gesture **450** may be used for navigation, speed, distance, time-shifting, rewinding, and forwarding. Dragging **450** can be used to move a cursor, a virtual cursor, or a change of state, such as highlighting outlining or selecting on the display. Dragging **450** can be in any direction and is generally used to navigate in two dimensions. However, in certain interfaces, it is preferred to modify the response to the dragging command. For example, in some interfaces, operation in one dimension or direction is favored with respect to other dimensions or directions depending upon the position of the virtual cursor or the direction of movement. Nodding **460** is defined by two fast trigger-drag up-and-down vertical movements. Nodding **460** is used to indicate "Yes" or "Accept." X-ing **470** is defined as in drawing the letter "X." X-ing **470** is used for "Delete" or "Block" commands. Wagging **480** is defined by two trigger-drag fast back-and-forth horizontal movements. The wagging gesture **480** is used to indicate "No" or "Cancel."

[0061] Depending on the complexity of the sensor system, only simple one dimensional motions or gestures may be allowed. For instance, a simple right or left movement on the sensor as shown here may produce a fast forward or rewind function. In addition, multiple sensors could be included and placed at different locations on the touch screen. For instance, a horizontal sensor for left and right movement may be placed in one spot and used for volume up/down, while a vertical sensor for up and down movement may be place in a different spot and used for channel up/down. In this way specific gesture mappings may be used.

[0062] The system and methodology can be implemented in any number of ways depending on the hardware and the content involved. Examples of such deployment include DVD, Blu-Ray disc (BD); streaming video or video on demand (VOD), and broadcast (satellite, cable, over the air). Each of these deployments would have different architectures but one could standardize the triggers for each of these events (the additional content) that represents what would be queued by the application running on the second screen. For example, event A and event B would be triggered by a synching mechanism associated with any of these sources of a video. When the tablet encounters "event A", the program running on the second screen device (e.g. tablet) will enact "event A". Similarly, if "event B" is encountered, the program running on the second screen device would do "event B".

[0063] FIG. **5** depicts a generic system **500** on which such methodology could be implemented. Here the system **500** includes a first screen device **510**, a second screen device **520**, a playback device **530**, a network **540** and server **550**. Each of these elements will be discussed in more detail below.

[0064] The first screen device **510** is a display device, such as display device **114** described above in relation to FIG. **1**, for displaying content such as television programs, movies, and websites. Examples of such first screen display devices include, but are not limited to, a television, monitor, projector, or the like. The first screen device **510** is connected to the playback device **530** which can provide the primary content to the first screen device **510** for display. Examples of such communication include, but are not limited to HDMI, VGA, Display port, USB, component, composite, radio frequency (RF), and infrared (IR), and the like. In certain embodiments, the first screen display device **510** may be connected to the network **540**, in either a wired or wireless (WiFi) manner, providing additional connection to the second screen device **520** and server **550**. In some embodiments, the first display device **510** may include the functionality of the playback

device **530**. In still other embodiments, the first screen display device **510** may be in non-networked communication **560** with the second screen device **520**. Examples of such non-networked communication **560** include, but are not limited to, RF, IR, Blue-Tooth, and other audio communication techniques and protocols.

[0065] The second screen device **520** is device capable of displaying additional content related to the primary content being displayed on the first screen device **510**. The second screen device may be a touch screen control device **116** or touch screen device **300** as described above. Examples of second screen devices include, but are not limited to, a smart phone, tablet, laptop, personal media player (e.g. ipod), or the like. The second screen device **520** is in communication with playback device **530** using either network **540**, non-networked communication **560**, or both. The second screen device **550** is also in communication with the server **550** via the network **540** for requesting and receiving additional content related to the primary content being displayed on the first screen device **510**. In some embodiments, the second screen device **520** may be in networked or non-networked communication **560** with the first screen device **510**. Examples of such non-networked communication **560** include, but are not limited to, RF, IR, Blue-Tooth (BT), audio communication techniques and protocols, or the like.

[0066] The playback device **530** is device capable of providing primary content for display on the first screen device **510**. Examples of such playback display devices include, but are not limited to, a DVD player, Blue-Ray Disc (BD) player, game console, receiver device (cable or satellite), Digital Video Recorder (DVR), streaming device, personal computer, or the like. The playback device **530** is connected to the first screen device **510** for providing the primary content to the first screen device **510** for display. Examples of such connections include, but are not limited to HDMI, VGA, Display port, USB, component, composite, radio frequency (RF), and infrared (IR), and the like. The playback device **530** is also connected to the network **540**, in either a wired or wireless (WiFi) manner, providing connection to the second screen device **520** and server **550**. In some embodiments, the functionality of the playback device **530** may be included in the first screen display device **510**. In still other embodiments, the playback device **530** may be in non-networked communication **560** with the second screen device **520**. Examples of such non-networked communication **560** include, but are not limited to, RF, IR, Blue-Tooth (BT), and other audio communication techniques and protocols.

[0067] The network **540** can be a wired or wireless communication network implemented using Ethernet, MoCA, and wireless protocols or a combination thereof. Examples of such a network include, but are not limited to, delivery network 1 (**106**) and delivery network 2 (**112**) discussed above.

[0068] The server **550** is a content server configured to provide additional content to the second screen device **520**. In certain embodiments, the server may also provide the primary content for display on the first screen device **510**. The service is connected to the network **540** and can communicate with any of the devices that are also connected. Examples of such a server include, but are not limited to, content source **102**, broadcast affiliate manager **104**, content manager **110**, and the back end server described above.

[0069] FIG. **6** depicts a flow diagram **600** for a methodology for displaying additional content related to primary content being viewed is disclosed. The method includes the following steps: Displaying primary content on a first screen device **510** (step **610**). Providing, in association with the display of the primary content on the first screen, a synching mechanism to synch additional content (step **620**). Displaying, on a second screen device **520**, additional content related to the primary content on the first screen **510** that is synched to the content displayed on the first screen device according to the synching mechanism (step **630**). In certain embodiments, the method also includes the steps of receiving commands from the second screen device **520** to control the display of primary content on the first screen device **510** (step **640**) and controlling the display of the primary content on the first screen device **510** based on the commands received from the second screen device **520** (step **650**). Each of these steps will be described in more detail below.

[0070] The step of displaying primary content (step **610**), such as a movie or television show, is performed on the first screen device **510**. This involves the primary content being provided to the first screen display **510**. The primary content can be provided by the playback device **530** or be received directly from a content provider at the first screen display device **510**. The primary content is then shown or otherwise displayed on the first screen device **510**. The display of the primary content also includes the control of the content being displayed. This can include the traditional playback commands of play, stop, pause, rewind, and fast forward as well as the navigation of on screen menus to select the content and other playback options. In certain embodiments, the display on the first screen device **510** (step **620**) further includes displaying an indicator of the type of additional content being displayed on the second screen device **520**.

[0071] The provided synching mechanism (step **620**) can be implemented in a number of ways. In certain embodiments the synching mechanism is performed by an application running on the second screen device **520**, the playback mechanism **530**, the first screen device **510** or any combination thereof. At its most basic, the second screen device **520** is configured (via an application) to detect synching signals, cues, or other type of indicators that directs the second screen device **520** to update the display of additional content to coincide with the primary content being displayed on the first screen **510**. The synching signals, cues or other type of indicators, can be provided as part of the primary content or can be generated by the playback device **530** of first screen device **510** (via an application) in accordance with the chapter, scene, time-code, subject matter, or content being displayed. The synching signals, cues or other type of indicators can be transmitted to the second screen device **520** using the network, in either a wired or wireless (WiFi) manner, or using non-networked communication **560** such as audio signals. Examples of some of the implementations are given below. Other possible implementations will be apparent given the benefit of this disclosure.

[0072] The step of displaying the additional content, such as supplemental materials, video clips, websites, and the like (step **630**) is performed on the second screen device **520**. The additional content can be stored locally on the second screen device **520** or be provided by the server **550**, playback device **530**, or first screen device **510**. The display of the additional content is synched to the primary content being displayed on the first screen device **510** according to the synching mechanism. For example, when the second screen device **520** detects a synching signal, cue or other type of indicator, the second screen device **520** updates the display of the additional

content accordingly. In some embodiments, this further involves contacting and requesting the additional content from the server **550**, playback device **530**, or first screen device **510** and subsequently downloading and displaying the additional content. In some embodiments, the additional content to be displayed can be selected, modified, or omitted based on the user using the system.

[0073] In certain embodiments, the display on the second screen device **520** (step **630**) further includes displaying the status of the display of the primary content on the first screen device **510** such as whether the display of the primary content on the first screen device **510** has been paused. In certain other embodiments, the display on the second screen device **520** (step **630**) further includes displaying the status of the synch between the additional content on the second screen device **520** and the primary content on the first screen device **510**.

[0074] In certain embodiments, the second screen device **520** is capable of transmitting as well as receiving. The optional steps **640** and **650** address this capability. In step **640** commands are received from the second screen device **520**. Ideally, these commands are received at the device controlling the playback of the primary content on the first screen device **510**. In certain embodiment, the playback device **530** is the device receiving the commands. The commands can be sent via the network **540** or non-networked communication **560**. Once received, the commands can control the display of the primary content (step **650**). Examples of such control include, but are not limited to, play, stop, pause, rewind, fast-forward, as well as chapter, scene, and selection. These commands can also be used to synch the primary content displayed on the first screen device **510** with the additional content being displayed on the second screen device **520**.

[0075] FIG. **7** provides a high level overview of one example of system **700** with a synching mechanism implemented using a non-networked communication **560**. In this system **700**, the non-networked communication synching mechanism is audio watermarking **710**. In this example, audio watermarking **710** involves inserting a high-frequency signal, cue, or other indicator into the audio signal of the primary content being displayed on the first screen device **510**. The audio watermark is inaudible to humans but can be detected by a microphone in the second screen device **520**. When the second screen device **520** detects an audio watermark, the displayed additional content is updated to synch with the primary content being displayed on the first screen device **510** based on the detected watermark. The audio watermarks can be incorporated into the primary content at the source of the content or inserted locally by the playback device **520** or first screen device **510**.

[0076] FIG. **8** provides a high-level overview of one example of a system **800** with a synching mechanism implemented using the network **540**. In this system **800** the synching mechanism is wireless communication (WiFi) **810** between a playback device **530** (a Blu-Ray Disc player) and the second screen device **520** (an iOS device running an application). In the example of FIG. **7**, the features and protocols of a BD-Live enabled device are used. There are two main components of this protocol: connection and communication. Both are described below. For simplicity the second screen iOS application will be referred to as the "iPad" and the BD-Live enabled device will be referred to as the "disc".

[0077] Connection occurs when an iOS enabled device **520** first launches the second screen application and attempts to connect to a BD-Live enabled device **530** on the same Wi-Fi network **540**.

[0078] 1. Disc is inserted into BD player

[0079] 2. Disc enters UDP 'listening' loop

[0080] 3. iPad launches second screen application

[0081] 4. iPad performs UDP broadcast of authentication token

[0082] 5. Disc receives authentication token and authenticates

[0083] 6. Disc retrieves IP from tokens sender (iPad's IP)

[0084] 7. Disc responds to authentication with its IP and PORT

[0085] 8. iPad confirms IP and PORT

[0086] 9. iPad closes UDP socket communication

[0087] 10. iPad establishes direct TCP socket communication with disc based on IP and PORT provided.

[0088] Communication occurs after a connection has been established between the second screen iOS application and a BD-Live enabled device.

[0089] 1. iPad and Disc are aware of each other's IP's as well as what PORT communication should occur using

[0090] 2. TCP socket communication is maintained for the duration of the applications lifecycle.

[0091] One advantage of such a wireless communication as seen in this example is that it is bi-directional allowing the second screen device to transmit as well as receive commands. This allows for two way synching as well as control of playback from the second screen device **520**.

[0092] In certain embodiments, the application of the second screen device **520** could be specific to a specific program or movie on a specific system (e.g. BD). In other embodiments, the second screen application could be generic to a studio with available plug-ins to configure the application to a particular program or movie. In still other embodiments the second screen application could be universal to system (BD, VOD, broadcast), content, or both. Other possible implementations and configurations will be apparent to one skilled in the art given the benefit of this disclosure.

[0093] The system can be operated in with a passive approach or an interactive approach. In the passive approach icons displayed on first screen device **510** prompt the user to look at the second screen device **520** for an additional content event being displayed that is related to the primary content displayed on the first screen device **510**. The icon preferably indicates what type of additional content event is available on the second screen device **520** (e.g., a shopping cart icon indicates a purchase event, an "I" icon indicates an information event, a stickman icon indicates a character information event, etc.) FIG. **9**A-F depicts some of the aspects that may be displayed to the user in passive mode.

[0094] FIGS. **9**A-F depict skeletal examples of what may be displayed on the screen **900** of the second screen device to a user when using an application in passive mode that provides additional content on the second screen device **520** that is synched with the primary content on the first screen device **510**.

[0095] FIG. **9**A depicts a splash screen that may be displayed to the user when the application is launched. It includes the product logo and indication of the primary content **902**. Here new content screens transition in from right in a conveyer-belt like manner as indicate by arrow **904**.

[0096] FIG. **9**B depicts a pop-up message **906** that is displayed to a user when no playback device **530** is detected by second screen device **520**.

[0097] The screen **900** of FIG. **9**C shows a synch button/icon **908**, chapter timeline **910**, active chapter indicator **912**, chapter-event indicator **914**, chapter number indicator **916**, event timeline **918**, chapter background **920**, event card **922**, and timeline view icons **924**. The synch button **908** provides a mechanism to synch the content between the first and second screen devices **510**, **520**. The synch button **908** may also indicate the status of the synch between the content on the first and second screen devices **510**, **520**. The chapter timeline **910** indicates the chapters of the primary content. The movie title leader is in the background of the chapter timeline **910** and indicates the primary content. As the primary content progresses the chapters move along chapter timeline in a conveyer-belt life fashion with the active chapter indicator **912** indicating the current chapter in the primary content via highlight and center position of the chapter timeline **912**. The chapter-event indicator **914** indicates that events displayed in the event timeline **918** are part of the active chapter shown in the chapter timeline **910**. The event timeline **918** displays event cards **922** indicating events that correspond to what is transpiring in the current chapter of the primary content. For each chapter, the first displayed event card **922** indicates the chapter that the following events occur in. As the primary content progresses the event cards **922** move along event timeline **918** in a conveyer-belt like fashion with the current event in the center position of the event timeline **918**. Each chapter may be provided with a unique background **920** for the events of that particular chapter. The timeline view icon/button **924** indicates that the viewer is in timeline view showing the chapter timeline **910** and event timeline **918** as well as provides a mechanism to access the timeline view.

[0098] The screens **900** of FIGS. **9**D and **9**E depict how event cards **922** progress across the event timeline **918**. Here the synch button/icon **908** indicates that the timeline view of the additional content is in synch with the primary content on the first screen device **510**. In FIG. **9**D, the current triggered event card **926** is shown in the center position of the event timeline **918** and represents the first triggered event. To the left of the current triggered event card **926** in the event timeline **918** is the previous event card **928**, in this case the card indicating the chapter. To the right of the current triggered event card **926** in the event timeline **918** is the next event card **930**, in this case the card indicating the next scheduled event. Since, in FIG. **9**D, this is the current triggered event card **926** is for the first triggered event, the chapter indicator **916** indicates that it is chapter 1. The current triggered event card **926** includes the additional content **932** related to the primary content. The current triggered event card **926** also provides an indicator **934** as to what type of additional content is displayed. In certain embodiments this indicator matches an indicator shown on the first screen display **510**. The current event card **926** also includes buttons/icons for synching **936** and sharing **938**. The synch button/icon **936** provides a mechanism that causes the primary content displayed on the first screen device **520** to be synched with the current event. The share button/icon **938** provides a mechanism to share the additional content of the event with a social network. The elements of the screen **900** of FIG. **9**E are similar to the elements of FIG. **9**D except that the current triggered event card **926** is for an event that happens later in the timeline as indicated by the chapter indicator **916** which indicates the current chapter is chapter 3.

[0099] FIG. **9**F depicts examples of other possible functionality that may be provided as part of display on the second screen device **920**. Here the chapter timeline **910** is provided with a collapse icon/button **940** which provides a mechanism to toggle the chapter timeline between visible **940***a* and hidden **940***b*. Likewise the synch button/icon **908** can toggle between status indicating whether synch is currently active **908***a* and status indicating synch has been lost and re-synching is available **908***b*. In some embodiments a volume button icon **942** is provided. The volume button/icon **942** provides a mechanism to turn the sound of the first screen display "OFF" or "ON". The volume button **942** may also indicate the status of whether the volume is "ON" indicating muting is available **942***a*, or "OFF" indicating sound is available **942***b*. In some other embodiments a play/pause button/icon **944** is provided. The play/pause button **944** provides a mechanism to pause or resume playback of content on the first screen display **510**. The pause/play button may also indicate the status of whether the playback can be paused **944***a*, or "or resumed **944***b*.

[0100] In the interactive approach, the user selects an additional content event on the second screen device **520** and what is displayed on the primary screen device **510** is synched to the selected event. As indicated previously, the events of additional content are synched to the primary content. If the user swipes the movie timeline or the events, the events become out of synch with the movie being shown on the main screen. To re-synch touches the synch button on the tablet. The timeline or events are the synched back to what is being displayed on the main screen. Likewise, a user can select a trivia event or map event, touch the synch button, and the scene in the movie related to the selected trivia or map event will be played on the main screen. Examples of this can be seen in FIG. **10**A-D.

[0101] FIG. **10**A depicts how a user may interact with the chapter timeline **910** and event timeline **918** on the screen **900**. Here icons **1000** and **1002** represent how the user can touch the screen to scroll left or right in the chapter or event timelines **910**, **918**.

[0102] FIG. **10**B depicts one embodiment of the screen **900** when a user interacts with the chapter timeline **910**. In this example the synch button/icon **908** indicates that the additional content on the second screen display **520** is out of synch with the primary content on the first screen display **510**. Icon **1000** represents the user scrolling through the chapter timeline **910**. The current chapter remains highlighted **912** until the transition to the new chapter is completed. When navigating through the chapter timeline **910** a chapter position indicator **1004** is provided that indicates what chapter of the available chapters is selected. The chapter indicator **916** also indicates the selected chapter and updates when the transition to the new chapter is complete. In this example, while the user is navigating through the chapter timeline **910**, the event timeline **918** is dimmed. In certain embodiments, the user may jump directly to a particular chapter by selecting the chapter from the timeline **910**.

[0103] FIG. **10**C depicts one embodiment of the screen **900** when a user interacts with the event timeline **918**. Icon **1002** represents the user scrolling through the event timeline **918**. Here, the timeline **918** is being transitioned from current triggered event card **926** to the next event card **930**. When

navigating through the event timeline **918** an event position indicator **1004** is provided that indicates what event of the available events is selected.

[0104] FIG. **10**D depicts one embodiment of the screen **900** when a user interacting with the event timeline **918** causes a transition from one chapter to another. Icon **1002** represents the user scrolling through the event timeline **910** causing a chapter change. Here, the timeline **918** is being transitioned a new event card **922** indicating a new set of events related to a new chapter. When navigating through the event timeline **918** causes a transition to a new chapter the event position indicator **1004** is centered until the new series of events begins.

[0105] FIGS. **11**A-C and **12**A-B indicate some of the other interactive activities that can be accessed via the event cards **922**. FIGS. **11**A-C depict the social media sharing feature. FIGS. **12**A-B depict the chapter selection as well as selection and playback of additional media files.

[0106] FIG. **11**A-C shows various pop-up fields on the display **900** when the sharing feature is active via the share button/icon **937**. FIG. **11**A shows the field **1100** displayed when the user has logged into their social network (in this case Facebook). Area **1102** indicates the event being shared and area **1104** indicates the comments the user is going to share about the event. Button **1106** provides the mechanism to submit the event and comments to be shared. FIG. **11**B shows the field **1100** displayed when the user has not yet signed in to the social network. In this example button **1108** is provided to sign into Facebook and button **1110** is provided to sign into twitter. Options to sign into other social networks may also be provided. FIG. **11**C shows a onscreen Qwerty keyboard **1112** that may be used to enter comments into area **1104** for user's comments. In certain embodiments, this may be a default keyboard provided by the second screen device **520**.

[0107] FIG. **12**A-B shows the selection of chapters as well media content for playback by the user. In the example of **12**A, if the user single taps **1200** the currently playing chapter shown in the chapter timeline **912** the playback on the first screen device **510** is paused. If the user double taps **1202** the currently playing chapter shown in the chapter timeline, playback of on the first screen device will jump to the beginning of the chapter and the events timeline **918** will be set to the first event of that chapter. In some embodiments, the event cards **922** may include media files **1204** such as video or audio clips. If the media file is an audio clip, then selection of the audio clip results in playback on the current screen **900**. If the media file is a video clip, then selection of the video clip results in the launching of a full-screen media player **1206** as seen in FIG. **12**B. In this example the media player includes on-screen controls **1208**. To return to the previous screen, the user only needs to tap the non-video surface **1210** of the media player.

[0108] FIG. **13**A-E depicts some other possible features regarding the additional content. These include a map view **1300**, family tree **1310**, and settings **1320**. FIG. **13**A depicts the menu bars for these options. In this example each of these menu bars are provided with first screen device controls **1330** including pause/resume and mute/un-mute. FIG. **13**B depicts the map view display **1300**. The map view display **1300** includes a map **1302** including marked locations **1304** and information about the locations **1306**. Icons are also provided to select other maps **1308**. FIG. **13**C depicts the family tree view **1310**. The family tree view shows the family tree with fields **1312** indicating the relationship between the family members. In this example the button/icon **1314** at the bottom indicates what view is currently being shown (i.e. the family tree view). If a field **1312** is selected, a pop-up field **1316** is displayed, as shown in FIG. **13**D, providing information about the person in the field **1312**. FIG. **13***e* depicts the settings view **1320**. In view **1320** the user is provided with controls for adjusting the preferences for the audio and video **1322**, events **1324**, and social network sharing **1326**.

[0109] FIGS. **14**A-L depict skinned examples of what may be displayed on the screen **900** of the second screen device to a user when using an application that provides additional content on the second screen device **520** that is synched with the primary content on the first screen device **510**. FIG. **14**A is a skinned version of the splash screen as shown and described in relation to FIG. **9**A. FIGS. **14**B-F depict skinned versions of the timeline view as seen and described in relation to FIGS. **9**C-F and **10**A-D. FIG. **14**G depicts a skinned version of a screen display wherein all the available video clips that are part of the additional content are displayed for the user. FIG. **14**H depicts a skinned version of a screen display wherein all the available audio clips that are part of the additional content are displayed for the user. FIG. **14**I depicts a skinned version of the maps view as shown and described in relation to FIGS. **13**B. FIGS. **14**J and **14**K depict skinned version of the family tree view as shown and described in relation to FIGS. **13**C *and* **13**D respectively. FIG. **14**L depicts a skinned version of the settings view as shown and described in relation to FIG. **13**E.

[0110] The events and features shown in the figures are just some examples of possible events. In certain embodiments, a user may be able to configure or otherwise select what events they wish to be shown (e.g., don't show me purchase events). In other embodiments the user may be able to select or bookmark events for viewing at a later time. In still other embodiments certain events may unavailable or locked out depending on the version of the program being viewed (i.e. purchased vs. rented or BD vs. VOD vs. Broadcast). In other embodiments, the events available can be personalized for a user based on previous viewing habits (i.e. in system such as TIVO where a user's viewing habits are tracked or using the personalization engine **118** of FIG. **1**).

[0111] Other possible configurations include shopping features. For example, a store front could be provided and accessible from the second screen to for purchasing movie merchandise. In another embodiment points or awards could be provided to a user for watching, reviewing, or recommending a program or film. For example, the more movies watched or shared with friends, the more points awarded. The points can then be used for prizes or discounts on related goods.

[0112] Similarly, achievements can also be awarded. These achievements could be pushed to a social networking site. Example achievements could include:

[0113] Watching certain scenes—Achievement

[0114] Watching certain discs in a series—Achievement

[0115] Watching certain discs by a particular studio or actor—Achievement

[0116] In still other implementations a Wild feature could be implemented. A running Wiki could let a user and other users of a disc comment on certain scene. For example, tracking metadata could be created which is pushed to a web based wild. Such metadata could include:

[0117] Chapter Information

[0118] Time Codes

[0119] Thumbnails of Scenes

[0120] Actor/Director Information

[0121] This pushed information can be used to create a running Wild which lets others comment on the movie. These comments could then be reintegrated into the second screen application as events which can be accessed.

[0122] Additional features and screens are also possible. For example, in some embodiments activity on one or more social networks that is related to content displayed on the first screen can be monitored and used to provide additional content on the second screen.

[0123] As discussed in regard to FIG. **11**A-C. The application on the second screen device **520** can support social media such as Facebook and Twitter. Additional examples of this can be seen in FIGS. **15-17**.

[0124] FIG. **15** depict a wireframe screenshot **1500** showing the panel **1510** displayed over the background, in this case a "greyed-out" or "dimmed" timeline view **1520**, when the user has not yet signed in to the social network. In this example panel **1510** is for signing into twitter. The panel **1510** provides an area **1512** to provide a username or email address as well as an area **1512** to provide a password. Button **1516** authorized the application to access twitter. Button **1518** declines the sign-in. A similar panel or field can be provided to sign into Facebook, or other social media networks.

[0125] FIG. **16** depict a flow diagram **1600** of the screens displayed to a user based on whether they are signed into a social network. At junction **160** it is determined is the user it signed in or otherwise authorized on the social network. If the user has not provided authorization (**1612**) screen **1500** with panel **1510** of FIG. **15** is displayed to the user prompting them to sign in. If the user has previously provided authorization (**1614**) or signs in using screen **1500** (**1618**) screen **1620** with message panel **1622** is displayed. From the message panel **1622** the user may cancel or send a message using buttons **1624** and **1626** respectively. The text of the message can be entered using an onscreen keyboard **1628**. Once a message is sent or canceled out of (**1630**) or if authorization is never provided (**1632**) junction **1634** is arrived at wherein the panels are dismissed and the user is returned to the previous screen view (**1640**).

[0126] FIG. **17** depicts a skinned version screen **1700** of the screen **1620** of FIG. **16**. A message panel **1710** is provided overtop the skinned background **1720**. The message panel **1710** includes a text area **1712** as well as cancel **1714** and send **1716** buttons. Text can be entered into the text area **1712** using an onscreen keyboard **1730**.

[0127] In addition to providing the ability to post social messages from the application on the second screen device **520**, the user's experience can further be enhance being able to track comments on social media relating to content being viewed on the first screen device **510** and providing additional content on the second screen device **520** that is synched to the primary content on the first screen device **510** based on the tracked comments relating to the primary content.

[0128] FIG. **18** shows a flow diagram **1800** depicting one possible methodology for providing such functionality on a second screen device **520**. At a basic level, the method includes three steps. First, social media activity regarding content being displayed on the first screen device **510** is monitored (step **1810**). The monitored social media activity is then processed (step **1820**). Finally, additional content based on the social media activity is provided on the second screen device **520** which is synched to the primary content on the first screen device **510** (step **1830**). Each of these steps will be discussed in more detail below in reference to specific exemplary implementation that rely on social media activity.

Example

Social Quote Event

[0129] Popular broadcast media can potentially generate an overwhelming amount of related social messages. Second screen applications designed to support particular broadcasts have been developed to extend the branded experience. These second screen applications may include a relevant social feed by filtering messages by a hashtag or other keyword. Even with this filtering in place the message count can quickly become unwieldy for popular events (e.g. Superbowl 46 where the Tweets per second peaked at 10,245). What is disclosed herein is a mechanism to identify and surface relevant social messages for the user to see without being inundated with large numbers of messages to scan.

[0130] Current practice in many social messaging applications is to simply present the messages as they are received resulting in an almost continuous scrolling of messages as they are rendered in the user interface. Other implementations may throttle requests for messages to reduce load on the back-end servers but the number of results for each request may be large and would be difficult for a user to scan the list before the next request is fulfilled.

[0131] This disclosure offers an approach that curates social messages that are then offered to the user with timing appropriate to a second screen application that may not be entirely focused on the social messaging aspect. This is valuable when it is desirable for second-screen applications that want to integrate social messaging with other aspects of the media experience like bonus content, trivia and advertising.

[0132] In the context of an application on a second-screen device **520** where multiple items are displayed to the user in a timed fashion in sync with the media being displayed on a first screen device **510**, curated social information can be interleaved with other "timeline events". For example an actor trivia "timeline event" may be presented in conjunction with a character's appearance on screen. A "Social Quote Event" may be timed for display just after an intense action scene. This latter event displays only the high-level/relevant social messages based on targeting or frequency. This provides the user a sense of what is being communicated in the social network while not requiring the user to scan through hundreds or even thousands of messages. An example of this can be seen in FIG. **19**.

[0133] FIG. **19** depicts a wireframe screenshot **1900** showing a "Social Quote" event panel **1910** as part of the timeline of other events **1920**. The panel **1910** provides a text area **1912** displaying the relevant curated social quotes. In certain embodiments one or more additional buttons are provided. In this example Button **1914** provides the ability to post or in this case re-tweet a given quote. Other possible features and implementation will be apparent to one skilled in the art given the benefit of this disclosure.

[0134] The process of providing, on a second screen device **520**, social media comments relevant to content being displayed on a first screen device **510** follows the general methodology set forth in FIG. **18**.

[0135] First social media activity is monitored (step **1810**). This involves looking for keywords, hashtags, or the like that include the name of the content being displayed on the first screen device **510**, the name of the actors, the name of the

director, or other related information using techniques and methodologies that are well known in the art. Monitoring of social media can be performed on the second screen device **520**, a server **530**, provided by a third party service, or a combination of thereof.

[0136] The step of processing (step **1820**) is where the data is curated to only provide the most relevant comments or messages. To achieve the curated "Social Quote" the following heuristics may be applied:

[0137] If the social message is targeted to the current user it should be deemed important for display. As an example this is like an "at" message (@user) in Twitter. Other targeting or addressing schemes can be employed as well (e.g. post on a wall in Facebook)

[0138] Many social messages are simply re-sending original messages. Twitter provides a mechanism of "re-tweets" that adds metadata to a message to identify how many times it has been passed along. In this case the re-tweet count provides a metric of "importance" which is then used to select these messages for display.

[0139] if the message contains multiple keywords it can be given greater "importance".

[0140] if a user may have specified user preferences for which the messages can be compared to.

[0141] In certain embodiments is also conceivable that social messages can be "sponsored" so that they automatically gain relative importance above the crowd of other messages. For example social media comments that were posted from a second screen application may be given priority. A further refinement to this would be along the lines of targeted advertising—the importance of sponsored messages can be weighted against user-specific criteria to achieve its relative ranking amongst other messages. This processing or curating can be performed on the second screen device **520**, a server **530**, provided by a third party service, or a combination of thereof.

[0142] One or a few social messages thus ranked can be displayed to the user to provide targeted and other "significant" messaging without having to resort to scanning ever-flowing lists of social messages (step **1830**).

[0143] In the case of the timeline-based application on a second screen device **520**, "Social Quote" events can be distributed throughout the timeline such that regular exposure to social networks is purposefully interleaved with other event types for a thoughtfully designed experience.

Example

Dynamic Advertising

[0144] A key to effective advertising is to deliver relevant offers at the right time. Current techniques involves extensive data collection on user behavior (e.g. Google tracking your searches, application use, viewing habits, etc.) which is then used to select advertisements that best suit the user's profile. A great deal of specificity can be derived using public and private data to develop these personalization profiles.

[0145] Providing a focused context for collecting data has the potential for improving advertisement delivery even further. Social messaging may indeed be used as a source for personalization but may be handled independently from other activities that the user may be engaged in simultaneously. For example a user may tweet about a particular movie and a back-end system in the cloud can record the interest in that movie. This data could then be used the next time a user visits a website that takes advantage of this data to deliver advertisements. While this may potentially result in a higher advertisement relevance to the user during the subsequent visit the context of the original social message is lost. Second-screen applications offer a known environment from which social messages can be monitored to enhance advertising personalization.

[0146] An application on a second screen device **520** can designed to display scheduled "events" in sync with primary video playback. Events can represent trivia, social content, voting, bonus material, advertisements, etc that are timed for display at relevant points in the primary video playback.

[0147] The context that the second-screen application (and device) provides is rich, to include:

[0148] Media information. This establishes an interest in a particular media item (broadcast TV, Video, etc)

[0149] Specific Media time information. The application knows where you are within a piece of media and any specific metadata associate with that time.

[0150] Location information. Second-screen devices **520** are typically equipment with mechanisms for identifying your current location

[0151] The disclosed embodiments interleave "events" to support an overall experience. Some of these event types afford a social interaction element such as voting or can offer social messaging anytime throughout the presentation. Subsequent "events" can be reserved for advertising and can react to previous activity to include social messaging. This can be accomplished by identifying keywords within the social message itself and providing that to an advertising service along with other relevant information such as location, metadata associated with the current media time, etc.

[0152] The application consolidates all these variables and offers advertisements within the context of the overall experience.

[0153] For Example a James Bond film could be playing on a first screen device and a location such as Hong Kong is displayed on screen. The second-screen app displays a supporting media item such as trivia about the location. The user could send a social message (tweets) to describe her desire to go on a vacation. The word "vacation" is parsed by the application in preparation for later advertising display. Later in the second-screen timeline an advertisement "event" focusing on a vacation offer is displayed.

[0154] This process also follows the general methodology **1800** of FIG. **18**. The monitoring (step **1810**) takes place when it is detected that the user has sent a social message including the keyword "vacation." In this example, the monitoring is performed on the second screen device **520**, but is could also be performed at the server **530**, by a third party service, or a combination thereof.

[0155] In the processing step (step **1820**), the specific advertisement is selected from an ad service by submitting the keyword "vacation". Additional information such as the specifically known location in the movie can be derived from metadata associate to the movie at the particular time of the tweet. Additionally the advertisement can recommend a local travel agent using the user's location information. The processing can be performed on the second screen device **520**, but is could also be performed at the server **530**, by a third party service, or a combination thereof.

[0156] Finally, the advertisement can be displayed on the second screen device (Step **1830**). An example of this can be seen in FIG. **20**.

[0157] FIG. **20** depicts a wireframe screenshot **2000** showing a dynamic advertising event panel **2010** as part of the timeline of other events **2020**. The panel **2010** provides a text area **2012** displaying the relevant advertising offers. Other possible features and implementation will be apparent to one skilled in the art given the benefit of this disclosure.

[0158] The advertisement thus becomes a natural part of the "conversation" all within the context of the media consumption experience.

[0159] While the addition of social messaging to a second screen application as discussed in the examples above enhances the experience for the user, further functionality and enhancement of the experience can be achieved if the social messaging can be time-stamped or otherwise synched with the playback of content on the first screen device **510**.

Example

Synching Social Messages

[0160] Social messages are typically ephemeral and relevant only to the present moment in time. A common convention for associating a message to a particular event or topic is to use hashtags. These hashtags provide a means to filter for social messages of interest. Filtering for these hashtags provides a "real-time" view of messages on the topic. This disclosure takes this notion a step further and describes a mechanism for associating message to a specific point in time relative to the start of a media content (such as video). Social messages employing these techniques can be associated to specific points in time within the particular content. For example, social messages can be associated with an opening scene that sparks social commentary and later for other arbitrary points in the media timeline. This example becomes even more relevant when a piece of media is replayed at a later time.

[0161] In one embodiment, hashtags are used to add a timestamp. The current practice of using hashtags is well known. There is currently no widely established mechanism for describing time offset information within a social message or as additional metadata. The present disclosure provides a mechanism that can be implemented without custom extensions to the social messaging protocol. The encoded time offset is sent as part of the message itself. It is possible to obviate this approach by providing specific metadata that is not typically displayed as part of the social message itself.

[0162] FIG. **21** depicts exemplary social messages **2100** that including a hashtag identifying the media **2110** is provided (this is common use today) with the addition of another hashtagged string of characters encoding the time offset **2120**. In this example, the hashtag #ijkcs (**2110**) is used to identify Indiana Jones and the Kingdom of the Crystal Skull. The hashtag #1054675(**2120**) is a checksummed encoding of the frame offset.

[0163] FIG. **22** depicts an exemplary flowchart of a method for creating time-stamped social messages. The method begins at block **2210**. It is then determined that a user desires to create a social message (block **2220**). In this embodiment, this occurs when the user selects a comment button provided as part of the application running on the second screen device **520**. A timestamp of the position of the playback is then created (block **2230**). In this example, this involves generating a checksum. To create the checksum the application receives positioning information directly if the media is being played back within the application or from other methods that provide position information from external sources. This numeric data is then checksummed. The user can then enter the text for the social message and request it be sent (block **2240**). The timestamp is then added to the message and the message is sent or otherwise committed to the social network (block **2250**). In this example, this involves appending the checksum to the social message text. The checksum is used to ensure integrity of the data and allow a consuming application to ignore bad position data that might be maliciously or inadvertently created. This ends the method (block **2260**)

[0164] FIG. **23** depicts an exemplary flowchart of a method for consuming or otherwise reading and decoding a time-stamped social message. Once begun (block **2310**) the method includes receiving a social message pertaining to the particular content in question, in this case, the content being displayed on the first screen device **510** (block **2320**). In this example this involves the selection of a message based on the hashtag representing the video of interest (basic search on hashtag). The position information (timestamp) can then extracted (block **2330**). In this example, this involves the application looking for an additional hashtag that immediately follows and processed as an encoded position. If the position information is found (block **2340**), The position information is separated into a predetermined position and checksum. The position is confirmed against the checksum (block **2350**). If the position information is valid, the position can then be used to associate the social message to a particular time within the video and the message information can be displayed synched with the display on the first screen device **510** (block **2360**). If the position information cannot be confirmed, the message can be discarded or displayed without being synched with the display on the first screen device **510** (block **2370**). This ends the method (block **2380**).

[0165] Assuming not all social commentary will be generated using an application employing the techniques of the present disclosure, the following approach may be used to modify message so they can be consumed by applications sensitive to the position information.

[0166] A separate service (e.g. in the cloud) can monitor and record real-time feeds of social messages of interest (say for a particular television broadcast). This service could use known broadcast schedules and correlate the expected time of the television event with the time the messages are seen in real-time. The service then records the social message with the appended position information. The resulting repository of time-stamped message is then accessed in lieu of a direct connection to the social network. In certain embodiment origin information for the social messages can be used to correlate to specific regions with specific broadcast times.

Example

Heat Map

[0167] As discuss previously, social messaging is becoming a ubiquitous feature across various software applications. One problem this presents is that the sheer quantity of messages can become overwhelming especially for popular topics. At some point the individual messages get lost in the crowd and the quantity of messages becomes the interesting social aspect. This disclosure describes a way to visualize the volume of social activity over time which can then be used to identify interesting points in time for media content and also be used to navigate to those points in time.

[0168] Many second-screen applications provide a social message "feed" that simply streams social messages as they happen. There is little organization of this information beyond displaying the most recent at the top of the list or perhaps the notion of a "promoted" message that advertisers use to keep their message at the top of the stack. Messages are quickly replaced by new messages sometimes faster than a user can scan them. Once the messages have been buried in the stack their effective relevance to time is diminished.

[0169] The presented graphical representation referred to here as a Social Heatmap organizes social information to correspond with the timeline of a of a media item such as content being displayed on a first screen device **510**. In the case of live broadcast the social message timestamp can be used to make the correlation. In the case of recorded content, messages need to be stamped with the time relative to the start of the media. This can be done within the application since the relative time of the media playback can be acquired via syncing mechanisms. The sync time is added to the social message which is then made available via a social network to others using an application that is aware of the time information. In this way each social message has a relative media timestamp which aids in visual placement on the screen when displaying the information on a second screen device **520**.

[0170] FIG. **24** depicts an exemplary flowchart of a method for consuming or otherwise reading and decoding a time-stamped social message. Once begun (block **2410**) the method includes receiving a social message pertaining to the particular content in question, in this case, the content being displayed on the first screen device **510** (block **2440**). This can involve the selection of a message based on the hashtag representing the video of interest (basic search on hashtag) as discussed above or it could be based on keywords in the messages themselves. Timestamp information associated with the message is then looked for and messages without associated timestamp information are discarded (block **2430**). In certain embodiments this involves the application looking for an additional hashtag that immediately follows and processed as an encoded position. Based on the associated timestamp information, the messages can be allocated to bins (block **2450**). This process is discussed in more detail below. A graphical representation of the social messages associated with specific time periods of the primary content on the first screen device **510** can then be displayed on the second screen device **520** while the primary content is being displayed on the first screen device **510**. In certain embodiments the graphical representation of the social messages associated with specific time periods also graphically represent the intensity or frequency (i.e. the number) of social messages associated the specific periods of time and as such is referred to as a heatmap. The user can then use the heatmap to navigate the through the content on the first screen and the associated social messages (block **2460**). Such navigation is discussed in more detail below. This ends the method (block **2370**).

[0171] Bins are mechanism used for grouping messages with discrete sections of time. The number of messages in each bin can corresponds to the activity level for that section of time. It has been found that the screen width of each bin should be wide enough to afford navigation (e.g. using a touch device) but small enough to provide navigation resolution. An example of this can be seen in FIGS. **25** and **26**.

[0172] In the example of FIG. **25**, a tablet application allocates 1000 pixels of width for the heatmap **2500**. These 1000 pixels represent the entirety of the media playback time, say 50 minutes. This allows approximately 20 pixels of screen width per minute of content. If we use a bin width of 20 pixels then our navigation resolution will be to the nearest minute and the sensitivity for navigation will require a move of 20 pixels from bin to bin. FIG. **26** depicts an exemplary plot of sample count for values allocated to bins for rendering. The number of messages in a bin may be graphically represented using color, plots, or other indicators. The actual sensitivity that should be used will depend on the input device, user demographics and other factors.

[0173] FIG. **27** depicts an exemplary wireframe screenshot **2700** including a social heatmap or timeline. In this embodiment event panels **2710** displayed as part of a timeline view on the second screen device **520** which a user can scroll through as described previously. A Comment button **2720** is provided to allow the user to send social messages regarding content being displayed on the first **510** or second **520** screen devices. Social messages generated using such a function can include content and timestamp information for processing and inclusion in the heatmap **2750**. Sync indicator button **2730** allows the user to synchronize the events of the timeline view with the content being displayed on the first screen device **510**. Button **2730** can also indicate the status of the synchronization. At the bottom of the screenshot **2700** there is also a playback position indicator **2740** and the social heatmap **2750**. The playback position indicator graphically displayed the current position in the playback of the primary content on the first screen device **510**. In certain embodiments, a user can adjust the indicator to change the current playback position in the primary content being displayed on the first screen device **510**. The social heatmap **2750** has bins representing social messages associated with time periods in the playback of the primary content. Selecting bins, for example by sliding or "scrubbing" along the social heatmap **2750** causes the associated social messages to be displayed. Examples of this can be seen in FIGS. **28-32**.

[0174] FIG. **28** depicts the screenshot **2700** of FIG. **27** with a pop-over panel **2800** that is displays the social messages associated with a bin **2810** in the social heatmap **2750** when a specific bin is selected by a user as represented by icon **2820**. FIG. **29** depicts one embodiment of how messages can graphically be transition between (as indicated by arrow **2900**) in the popover panel as a user scrolls or scrubs along the heatmap **2750** (as indicated by icon **2820**). FIG. **30** indicates one possible embodiment of a panel **3000** that can be displayed if there are no social messages associated with a bin **2810**. FIG. **32** depict how multiple messages can be scrolled through within a panel **3100**. In this example, messages can be scrolled through vertically as indicated by arrows **3110**. In certain embodiments a scroll bar indicator **3120** is provided to indicate that there are multiple messages to be scrolled through. FIG. **32** depict another embodiment wherein selecting individual messages within the panel **3200** provides the user with additional functionality. In this example, selecting a message provides additional buttons that allow the user to resend ("re-tweet") a message **3210** or got the specific instance in the playback of the content on the first screen device **510** for with the message is associated.

[0175] FIG. **33** depicts a skinned version screen **3300** of the screen **2700** of FIG. **27**. In this example color and peaks are used to graphically indicate the intensity of social messages along the heatmap **3310**.

[0176] The present description illustrates the principles of the present disclosure. It will thus be appreciated that those skilled in the art will be able to devise various arrangements that, although not explicitly described or shown herein, embody the principles of the disclosure and are included within its spirit and scope.

[0177] All examples and conditional language recited herein are intended for informational purposes to aid the reader in understanding the principles of the disclosure and the concepts contributed by the inventor to furthering the art, and are to be construed as being without limitation to such specifically recited examples and conditions.

[0178] Moreover, all statements herein reciting principles, aspects, and embodiments of the disclosure, as well as specific examples thereof, are intended to encompass both structural and functional equivalents thereof. Additionally, it is intended that such equivalents include both currently known equivalents as well as equivalents developed in the future, i.e., any elements developed that perform the same function, regardless of structure.

[0179] Thus, for example, it will be appreciated by those skilled in the art that the block diagrams presented herewith represent conceptual views of illustrative circuitry embodying the principles of the disclosure. Similarly, it will be appreciated that any flow charts, flow diagrams, state transition diagrams, pseudocode, and the like represent various processes which may be substantially represented in computer readable media and so executed by a computer or processor, whether or not such computer or processor is explicitly shown.

[0180] The functions of the various elements shown in the figures may be provided through the use of dedicated hardware as well as hardware capable of executing software in association with appropriate software. When provided by a processor, the functions may be provided by a single dedicated processor, by a single shared processor, or by a plurality of individual processors, some of which may be shared. Moreover, explicit use of the term "processor" or "controller" should not be construed to refer exclusively to hardware capable of executing software, and may implicitly include, without limitation, digital signal processor ("DSP") hardware, read only memory ("ROM") for storing software, random access memory ("RAM"), and nonvolatile storage.

[0181] Other hardware, conventional and/or custom, may also be included. Similarly, any switches shown in the figures are conceptual only. Their function may be carried out through the operation of program logic, through dedicated logic, through the interaction of program control and dedicated logic, or even manually, the particular technique being selectable by the implementer as more specifically understood from the context.

[0182] Although embodiments which incorporate the teachings of the present disclosure have been shown and described in detail herein, those skilled in the art can readily devise many other varied embodiments that still incorporate these teachings. Having described preferred embodiments for a method and system for providing media recommendations (which are intended to be illustrative and not limiting), it is noted that modifications and variations can be made by persons skilled in the art in light of the above teachings.

[0183] While the example set forth above has focused on an electronic device, it should be understood that the present invention can also be embedded in a computer program product, which comprises all the features enabling the implementation of the methods described herein, and which, when loaded in a computer system, is able to carry out these methods. Computer program or application in the present context means any expression, in any language, code or notation, of a set of instructions intended to cause a system having an information processing capability to perform a particular function either directly or after either or both of the following a) conversion to another language, code or notation; b) reproduction in a different material form.

[0184] Additionally, the description above is intended by way of example only and is not intended to limit the present invention in any way, except as set forth in the following claims.

What is claimed is:

1. A method of providing a graphical representation of social messages on a second screen relating to content displayed on a first screen:

monitoring social media for one or more messages relating to content being displayed on a first screen;

processing the one or more message relating to content being displayed on first screen device to associate message with a time segment of the content being displayed on the first screen; and

providing a graphical representation of the one or more social messages associated with one or more time segments of the content being displayed on the first screen on the second screen.

2. The method of claim **1**, wherein the social media being monitored is Twitter.

3. The method of claim **1**, wherein the graphical representation comprises a series of bins, wherein each bin is associated with a time segment of the content being displayed on the first screen and the one or more messages are associated with the bins.

4. The method of claim **3**, wherein selecting a bin caused the associated one or more messages to be displayed.

5. The method of claim **1**, wherein the step of processing the one or more messages comprises:

determining if a timestamp is associated with the one or more social messages; and

associating the one more messages with a time segment of the content being displayed on the first screen.

6. The method of claim **5**, wherein the timestamp is a hashtag provided as part of the one or more messages.

7. The method of claim **1**, wherein the graphical representation indicates the number of messages associated with a time segment of the content being displayed on the first screen.

8. The method of claim **1**, wherein the step of monitoring is performed remotely.

9. The method of claim **1**, wherein the graphical representation provides the ability to control the content being displayed on the first screen.

10. A second screen device comprising:

a screen configured to display content;

storage for storing data; and

a processor configured to monitor social media for one or more messages relating to content being displayed on a first screen, process the one or more messages relating to content being displayed on first screen device to associate message with a time segment of the content being displayed on the first screen, and provide a graphical representation of the one or more social messages associated with one or more time segments of the content

being displayed on the first screen for display on the screen of the second screen device.

11. The second screen device of claim **10**, further comprising a wireless network interface for wireless communication.

12. The second screen device of claim **10**, wherein the processor is further configured to provide access to social media.

13. The second screen device of claim **10**, wherein the second screen device comprises a touch screen device.

14. The second screen device of claim **10**, wherein the graphical representation comprises a series of bins, wherein each bin is associated with a time segment of the content being displayed on the first screen and the one or more messages are associated with the bins.

15. A machine readable medium containing instructions that when executed perform the steps comprising:

monitoring social media for one or more messages relating to content being displayed on a first screen;

processing the one or more message relating to content being displayed on first screen device to associate message with a time segment of the content being displayed on the first screen; and

providing a graphical representation of the one or more social messages associated with one or more time segments of the content being displayed on the first screen on the second screen.

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