Playback Application

[0047] Figure 5 is a more detailed illustration of the playback application of Figure ~~5~~4, according to various embodiments. As shown, playback application 436 includes an interactive media title 500, a buffer 510, and a media player 520. Playback application 436 generally obtains interactive media title 500 from content server 110 via network 105. Interactive media title 500 includes a topology of narrative components, as mentioned above, where each narrative component includes a media segment and an interstitial segment. Interactive media title 500 is described in greater detail below in conjunction with Figures 6-8.

[0048] Buffer 510 is configured to obtain blocks 512 of media content via network 105. In one embodiment, buffer 510 may be a JavaScript application. Each block 512 defines media content associated with interactive media title 500. Buffer 510 stores blocks 512 for subsequent playback. Before playback of interactive media title 500 reaches a given playback position associated with a particular block 512, buffer 510 transmits the given block 512 to media player 520. Media player 520 stores blocks received from buffer 510 as committed blocks 522. A committed block 524 is considered “committed” because that block cannot be unloaded from media player 520 without closing down and/or reinitializing media player 520. In one embodiment, media player 520 may be a C++ application. Based on committed blocks 522, media player 520 generates frames 524 and transmits those frames to platform player 438. Platform player 438 outputs frames 524 via display device 450.

[0049] In one embodiment, during playback of interactive media title 500, buffer 510 maximizes the number of blocks 512 that can be obtained via network 105. The number of blocks 512 that can be obtained generally depends on current network conditions, among other factors. Buffer 510 may transmit blocks to media player 520 on an as-needed basis, though, in order to minimize the number of committed blocks 522. By minimizing the number of committed blocks 522, playback application 436 can advance playback of interactive media title 500 quickly to different playback positions. In particular, once media player 520 processes any remaining committed blocks 522, media player 520 may then quickly receive other blocks associated with another playback position and begin generating frames based on those other blocks.

[0050] The approach described above differs from how a conventional playback application implements a “seek” operation to advance playback to a different playback

WHAT IS CLAIMED IS:

1. A computer-implemented method, comprising:

playing back at least a portion of an interstitial segment included in a media title, wherein the interstitial segment indicates a set of options for a user to select, and each option corresponds to a different media segment included in the media title;

receiving, at a first point in time, a user selection of a first option included in the set of options, wherein the first option corresponds to a first media segment included in the media title;

determining a first portion of the interstitial segment that already has been committed for playback as of the first point in time;

determining a first playback position within the interstitial segment at which to begin playback of the first media segment based on ~~a~~ the first portion of the interstitial segment ~~that already has been committed for playback as of the first time~~;

automatically advancing playback of the media title past a remaining portion of the interstitial segment that occurs subsequent to the first playback position to a second playback position within the first media segment.

2. The computer-implemented method of claim 1, further comprising determining that the first portion of the interstitial segment has been committed for playback by determining that the first portion has been transmitted to a media player that is responsible for playing back the media title.

3. The computer-implemented method of claim 1 or claim 2, further comprising:

buffering the first portion of the interstitial segment;

buffering a second portion of the interstitial segment that is subsequent to the first portion of the interstitial segment; and

transmitting the first portion of the interstitial segment to a media player for playback, but not transmitting the second portion of the interstitial segment to the media player for playback.

4. The computer-implemented method of any one of claims 1 to 3, further comprising buffering a first portion of the first media segment in response to receiving

the user selection of the first option, wherein the first portion of the first media segment includes the second playback position.

5. The computer-implemented method of any one of claims 1 to 4, wherein the first playback position comprises a splice point at which playback of the media title advances seamlessly to the second playback position.

6. The computer-implemented method of any one of claims 1 to 5, wherein the first portion of the interstitial segment comprises a block of media content, and further comprising transmitting the block of media content to a media player, wherein the media player generates at least one frame of video data based on the block of media content and transmits the at least one frame of video data to a platform player for display via a display device.

7. The computer-implemented method of any one of claims 1 to 6, wherein the first portion of the interstitial segment comprises at least one frame of media data, and further comprising causing a media player to transmit the at least one frame of video data to a platform player for rendering via a rendering device.

8. The computer-implemented method of any one of claims 1 to 7, wherein the media title comprises a topology of narrative components that define different story arcs associated with a branching narrative and a plurality of options for selecting between the different story arcs.

9. The computer-implemented method of any one of claims 1 to 8, wherein the interstitial segment further indicates a second option that corresponds to a second media segment included in the media title, wherein the second media segment is not played back when the first option is selected.

10. ~~A~~One or more non-transitory computer-readable media~~medium~~ that, when executed by ~~a~~ one or more processors, causes the one or more processors to perform the steps of:

playing back at least a portion of an interstitial segment included in a media title, wherein the interstitial segment indicates a set of options for a user

to select, and each option corresponds to a different media segment included in the media title;

receiving a user selection of a first option included in the set of options, wherein the first option corresponds to a first media segment included in the media title;

determining a first portion of the interstitial segment that is currently committed for playback as of a point in time when the user selection is received;

determining a first playback position within the interstitial segment at which to begin playback of the first media segment based on ~~a~~ the first portion of the interstitial segment ~~that is currently committed for playback~~;

automatically advancing playback of the media title past a remaining portion of the interstitial segment that occurs subsequent to the first playback position to a second playback position within the first media segment.

11. The one or more non-transitory computer-readable media~~medium~~ of claim 10, further comprising the step of determining that the first portion of the interstitial segment has been committed for playback by determining that the first portion has been transmitted to a media player that is responsible for playing back the media title.

12. The one or more non-transitory computer-readable media~~medium~~ of claim 10 or claim 11, further comprising the steps of:

buffering the first portion of the interstitial segment;

buffering a second portion of the interstitial segment that is subsequent to the first portion of the interstitial segment; and

transmitting the first portion of the interstitial segment to a media player for playback, but not transmitting the second portion of the interstitial segment to the media player for playback.

13. The one or more non-transitory computer-readable media~~medium~~ of any one of claims 10 to 12, wherein the first playback position is determined based further on an amount of the first media segment that has been buffered.

14. The one or more non-transitory computer-readable media~~medium~~ of any one of claims 10 to 13, wherein the first portion of the interstitial segment comprises a

block of media content, and further comprising transmitting the block of media content to a media player, wherein the media player generates at least one frame of media data based on the block of media content and transmits the at least one frame of media data to a platform player for rendering via a rendering device.

15. The one or more non-transitory computer-readable mediamedium of any one of claims 10 to 14, wherein playback of the at least a portion of the interstitial segment occurs in response to the media title reaching a choice point associated with the set of options.

16. The one or more non-transitory computer-readable mediamedium of any one of claims 10 to 15, wherein a media player that is responsible for playing back the media title does not discard any portion of the interstitial segment when playback of the media title is advanced to the second playback position.

17. The one or more non-transitory computer-readable mediamedium of any one of claims 10 to 16, wherein a media player that is responsible for playing back the media title is not re-initialized when playback of the media title is advanced to the second playback position.

18. A system, comprising:

a memory storing a playback application; and

a processor that, when executing the playback application, is configured to perform the steps of:

playing back at least a portion of an interstitial segment included in a media title, wherein the interstitial segment indicates a set of options for a user to select, and each option corresponds to a different media segment included in the media title,

receiving, at a first point in time, a user selection of a first option included in the set of options, wherein the first option corresponds to a first media segment included in the media title,

determining a first portion of the first media segment that has already been buffered as of the first point in time,

determining a first playback position within the interstitial segment at which to begin playback of the first media segment based on ~~a~~ the first portion of the first media segment ~~that has already been buffered as of the first time~~,

automatically advancing playback of the media title past a remaining portion of the interstitial segment that occurs subsequent to the first playback position to a second playback position within the first media segment.

19. The system of claim 18, wherein a media player that is responsible for playing back the media title is not re-initialized when playback of the media title is advanced to the second playback position and does not discard any portion of the interstitial segment when playback of the media title is advanced to the second playback position.

20. The system of claim 18 or claim 19, wherein the processor determines the first playback position based further on a first portion of the interstitial segment that is currently committed for playback.