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CUSTOMIZED CONTENT SKIP FOR MEDIA PLAYERS

Abstract

Systems and methods for determining a skip time for navigating a media content in a media content system are disclosed herein. An input to perform a media content skip operation on the media content is detected. A current play position time in the media content is further detected, and a skip time amount based on the current play position time and a total media content play time is determined. The media content is skipped to a new play position time based on the skip time amount in response to the detected input.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATION [0001] This application is a continuation of U.S. patent application Ser. No. 17/828,214, filed May 31, 2022, which is a continuation application of U.S. patent application Ser. No. 16/804,495, filed Feb. 28, 2020, now U.S. Pat. No. 11,375,285, the disclosures of which are hereby incorporated by reference herein in its entireties.

BACKGROUND

[0002] The present disclosure relates to media play systems and methods and, more particularly, to systems and methods related to media play operations.

SUMMARY

[0003] Audio and video media devices, such as dedicated recorders, televisions, and, more recently, handheld devices (e.g., smartphone and tablets) offer their users the flexibility to perform various media content manipulation, offline (disconnected from Internet access) or online (while connected to the Internet wirelessly or with wire). Benefiting from modern-day technology advancements, media device users enjoy flexible media content (e.g., videos and audio books) consumption at and during a time of their choosing, at a location of their choosing, and with a media device of their choosing.

[0004] Media devices are ubiquitous, available on a variety of platforms, and implemented on and compatible with a variety of networks and electronic devices. With media device technology continuously growing in application, it is no surprise that each media device type features a unique user experience. For example, a smart television or a digital recorder in combination with a large screen display offers the consumer no less than a theater-like viewing experience, yet a smart handheld device offers the consumer the convenience of mobility. Where an audio player may not have or need graphics features, a video player typically does. Where a large form factor media player, such as a desktop computer, may be void of touchscreen media content functionality, a small form factor media player, such as a smartphone, is nearly always expected to have a touchscreen feature.

[0005] Media content functionality, like a touchscreen seekbar for media content skip operations, is among fairly recent electronic entertainment device improvements offering the consumer flexibility and convenience to rapidly navigate media content with a simple touch of the finger. Accordingly, different media device types offer different user experience, flexibility, and convenience. But a seekbar feature in a small form factor media device with a small-size screen display can clearly present an inconvenient experience to a—particularly adult—media content consumer; conversely, an adjustable skip time feature, such as an adjustable skip button, can present a more friendly media interaction experience.

[0006] Consumer-driven media content navigation features can help with marketability. Accuracy of content operations and high content operation speeds are among noteworthy media device marketability attributes. Consumer frustration with media content play operations is rather typical in the face of cumbersome seekbar adjustment requirements when reaching as close as visibly possible a desired media content play position with acceptable precision. An adjustable and customized skip time functionality, such as a skip time button, can improve media device user experience considerably by causing skip operation convergence to a precise user-intended media content play position.

[0007] Consider a media player with a conventional time lapse or skip button feature(s) that enables a user to skip (forward or backward) through a video or audio recording by seconds and/or minutes. Currently, a source of user frustration is burdensome skip feature activation to navigate a

media content forward or backward. In some cases, the user is required to repeatedly depress, tap, or press on a skip button before reaching an intended media content destination (a desired play position)—an interesting portion of the media content, for example, the end of a previously consumed media content episode. User frustration stems, at least in part, from the lack of proportionality between the current play position time (e.g., in a Harry Potter episode) and the total media content play time (e.g., the entire length of a Harry Potter episode). In other words, the skip time amount granularity remains constant without regard to media content duration. A 5-minute skip time feature may not be ideal for a 10-minute (total) video duration, whereas a 2-second skip time feature may be; a 2-second skip time feature may not be ideal for a 1-hour video duration, whereas a 5-minute skip time may be.

[0008] In some devices, a skip (time) option is displayed on a screen display of a corresponding media device (e.g., laptop) as an overlay on the media content (e.g., video), iconically appearing with an encircled double arrowhead pointers. Typically, two skip buttons, one on either side of the play button, allow the user to skip a media content forward or backward by a fixed time period. For instance, a one-time skip button touch on the left side of the play button skips the media content backward by a standard 5 seconds or 10 seconds, and a one-time skip button touch on the right side of the play button skips the media content forward by a standard 5 or 10 seconds. If the user desires to skip through a non-standard short media content duration, such as 2 seconds, the skip buttons prove ineffective because they are restrained by a 5- or 10-second fixed granularity.

[0009] Lack of adequate skip time granularity can further contribute to adverse user experience when navigating relatively longer media content. For example, if the user wishes to skip ahead by 20 minutes using a 10-second pre-configured skip button, the user must touch the skip button an impractical 120 number of times (120 min=20 min×60 secs/10) before reaching the intended play position, a cumbersome experience indeed.

[0010] In summary, whereas media content consumers are sure to enjoy the experience of navigating to a desired media content play destination with speed, accuracy, flexibility and case, they are instead met with inconvenient media operations features, such as multiple button or tab clicks and seekbar slides with compromised speeds and accuracy.

[0011] Media content manipulation mechanisms, techniques and systems are introduced to facilitate convenient, rapid and precise media content skip time outcomes of media device content. As used herein, the term “media device” is synonymous with “media content equipment.” Some disclosed embodiments are effective for smaller form factor media devices, such as over-the-top (OTT) platform-based devices. In some embodiments, larger form factor media devices can be effective candidates as well.

[0012] In some disclosed systems, two optional modes are available to a media content consumer an automatic mode and a customized mode. In some embodiments, optionally, a skip time is automatically determined for media content consumers based on the media content length. In some disclosed systems, a user may dynamically customize the skip time of or for a media player.

[0013] In either mode, a play position (for example, a Harry Potter episode) in the media content (Harry Potter series) is determined. The play position is a place in the media content from which the user desires to start to consume or resume consuming the media content. Continuing with the Harry Potter example, a user may wish to start watching a particular episode starting from the middle of the episode, an episode portion starting from the beginning (play position) to the middle (play position) of the episode. The user may wish to consume the remaining second Harry Potter episode half, an episode portion starting from a play position marked by a remaining episode portion to the end of the episode or somewhere in between.

[0014] In both the automatic and customized modes, a media content skip operation (e.g., skip forward or skip backward) performed on a media content on a media content equipment (or “media device”) is determined. The desired media content skip operation is performed by determining a media content skip time amount. In the automatic mode, the media content skip play operation may

be media content duration sensitive. In an example application, a Harry Potter episode may be skipped forward or skipped backward to a desired play position time in the episode at an adjustable and determined, rather than a fixed or pre-configured, skip time.

[0015] In some embodiments, the skip time is in units of time (e.g., a number of seconds skipped) or units of the media content (e.g., a number of video frames skipped). Where relevant herein, references to “time” apply equally to “frames.” For example, a reference to “play position time” applies equally to “play position frame.”

[0016] In accordance with some disclosed systems and methods, the media skip time is determined based on the current play position and the total media content play time. For example, the skip time amount may be determined based on how much time remains in the media content from the current play position. In some embodiments, as the remaining amount of time decreases, the skip time amount also decreases.

[0017] In some embodiments, the media skip time is determined based on the total media content play time (total runtime) and a media content play position time. Suppose a 100-minute Harry Potter episode is to be viewed by a consumer from the beginning of the episode to the 20-minute play position. At the beginning of the episode, the system skips an amount based on the 100 minutes, for example, 5% of 100 minutes. Then, from the 5-minute mark (5% of 100 minutes), the system may reduce the skip time based on a 5/100 ratio and so forth until the user reaches the desired 20-minute play position.

[0018] In some embodiments, the skip amount granularity is user configurable to facilitate rapid and convenient user navigation capability by case of user identification of the desired media content play position. Simply stated, the skip time amount keeps up with the media content duration. The case and precision with which skip operations reach the consumer desired media content play position are realized by a customized skip rate granularity adjustment. In the customized mode, skip features facilitate flexible, fast, and accurate user navigation to reach a desired play position. Conveniently, an inflexible consumer navigation experience using preset skip buttons is replaced with a consumer-controlled and adjustable navigation experience.

[0019] In disclosed customized modes, one or more user input may adjust the skip time amount. For example, a user action—e.g., a skip button, tab, or bar press or touch-in each user swipe direction may cause the skip time amount to increase proportionately to the swipe length, a distance defined by a user swipe path along a screen display or monitor. In some embodiments, the distance is measured by an overlaid grid on the screen display, from the start of the user skip swipe to the end of the user skip swipe.

[0020] In some embodiments, the skip time is displayed on a screen display with an onscreen or off-screen skip button, skip tab, skip touchpad, or any other suitable mechanism that may be implemented in or for a media player for receiving user action as input.

[0021] In some embodiments, the user is privy to the skip time through a display during a corresponding skip time operation. Continuing with the Harry Potter episode example, the user may watch the Harry Potter episode on a media device screen display while navigating the Harry Potter episode using a skip button feature.

[0022] In accordance with disclosed methods and embodiments, a media content skip time amount granularity changes based on the remaining amount of media content play time to promote fast, precise and convenient media content navigation.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] The above and other objects and advantages of the disclosure will be apparent upon consideration of the following detailed description, taken in conjunction with the accompanying

drawings, in which:
[0024] FIGS. **1**A and **1**B illustrate example media content skip operation screen displays, in accordance with disclosed methods and systems;
[0025] FIG. **2** shows a media content operation skip screen display example, in accordance with disclosed methods and systems;
[0026] FIG. **3** depicts an illustrative flowchart of a skip time reset process, in accordance with disclosed methods and embodiments;
[0027] FIGS. **4-7** show illustrative examples of various skip operations, in accordance with disclosed embodiments and methods;
[0028] FIG. **8** depicts an illustrative flowchart of a process for mode selection, in accordance with some embodiments of the disclosure;
[0029] FIG. **9** depicts an illustrative flowchart of a process for determining a skip time amount in an automatic mode, in accordance with some embodiments of the disclosure;
[0030] FIG. **10** depicts an illustrative flowchart of a process for determining a skip time amount in a customized mode, in accordance with some embodiments of the disclosure; and
[0031] FIG. **11** is a block diagram representing devices, components of each device, and data flow therebetween for a media content skip operation system incorporating skip operation features, in accordance with some embodiments of the disclosure.

DETAILED DESCRIPTION

[0032] FIG. **1**A illustrates an example media content skip operation screen display, in accordance with disclosed methods and systems. In FIG. **1**A, a media content skip operation screen display is configured as a media content skip operation screen display **100**. FIG. **1**A and the following discussion thereof is an illustrative example of a media content skip operation performed in an automatic mode. For the purpose of illustration, media content skip operation screen display **110** is shown to include a remaining portion **102**—a media content length between a current media content play position time to a desired media content play position time—of a media content **104**. In the example of FIG. **1**A, media content **104** includes episodes **106** of the **2019** television series "Game of Thrones". Episodes **106** includes four episodes **106***a*, **106***b*, **106***c*, and **106***d*. Each of the four episodes, **106***a*-**106***d*, may have a distinct total episode length (time or duration). For example, assuming media content **104** is shown to scale for the sole purpose of this illustrative discussion, at screen display **100**, episode **106***a* is shown to have a longer episode duration than each of the remaining three episodes **106***b*-**106***d*. For the purpose of simplicity, FIGS. **1**A and **1**B show the same "Game of Thrones" episodes and the total duration of all four "Game of Thrones" episodes are presumed 120 minutes.
[0033] In FIG. **1**A, a play position time **108** is shown at the beginning of episodes **106**, or t=0, "t" representing time. A play position time **110** is shown at the end of episodes **106**, or t=120 minutes, the total runtime. In the example of FIG. **1**A, the user/consumer has yet to consume any of the episodes **106** and may wish to navigate the episodes **106** by performing a skip operation, for example, to skip to a play position time marked by an end of episode **106***a*, a play position time marked by an end of two episodes **106***a*, **106***b*, a play position time marked by an end of three episodes **106***a*, **106***b* and **106***c*, or a play position time marked by the end of all four episodes **106**—play position time **110**. In conventional techniques, a skip forward operation of the "Game of Thrones" episodes **106** or any combination of episodes **106***a*, **106***b*, **106***c*, and **106***d* is performed by the same skip time amount despite the total episode duration. That is, the media content skip time operation granularity is constant despite varying episode durations. A consumer desirous to skip forward to play position time **110** versus a play position closer to play position time **108** is forced to perform the operation at a fixed skip time amount, for example, by clicking a 10-second skip button, and even then, with comprised accuracy. In contrast, disclosed methods and systems facilitate navigating episodes **106** by determining a skip time amount in an automatic mode based on the current play position time (t=0) and a total media content play time (t=120 minutes). The

consumer can navigate the episodes by skipping forward or backward to reach a desired play position within episode **106** more quickly than with traditional techniques. In some embodiments, the determined skip time amount decreases as the remaining media content play time decreases. In the example of FIG. **1**A, as the current play position nears the end of the episodes **106**, t=120 minutes (from t=0), the skip time amount decreases.

[0034] FIG. **1**B illustrates an example media content skip operation screen display, in accordance with disclosed methods and systems. In FIG. **1**B, a media content skip operation screen display is configured as media content skip operation screen display **120**. Like FIG. **1**A, FIG. **1**B and the following discussion thereof is an illustrative example of a media content skip operation performed in an automatic mode. Media content skip operation screen display **120** includes a remaining portion **112** and an elapsed portion **122** of a media content **114**. In the example of FIG. **1**B, media content **114** includes four episodes **116** of the 2019 television series "Game of Thrones". Like the example of FIG. **1**A, each of the four episodes, **116***a*-**116***d*, may have a distinct total episode play length or total episode play time. For example, episode **116***a* is shown to have a longer episode duration than each of the remaining three episodes **116***b*-**116***d*. In FIG. **1**B, a play position time **118** is shown at the beginning of episodes **116**, or t=0, and a play position time **124** is shown at the end of episodes **116**, or t=120 minutes, the total runtime. Additionally, a play position time **126** is shown at the middle of episodes **116**, or t=72 minutes.

[0035] FIGS. **1**A and **1**B present two of numerous other examples of skip time features for automatically determining a skip time amount based on the total length of the media content. In some disclosed systems, as will be further described with reference to subsequent figures, such as FIG. **2**, the consumer may dynamically customize the skip time amount of or for a media device.

[0036] Each of the screen displays **100** and **120** may be implemented in a media device. Non-limiting examples of a media device are smart televisions, smartphones, tablets, desktop computers, servers, and laptop computers, further detailed in reference to FIG. **11**.

[0037] Disclosed methods include determining a media content skip time amount for navigating the media content (e.g., a Harry Potter episode) by detecting an input to perform a media content skip operation (e.g., skip forward or skip backward) on the media content. A current play position time in the media content is detected, and a skip time amount is determined based on the current play position and the total media content play time (e.g., 120 minutes in the example of FIGS. **1**A and **1**B). In response to the user input, the system then skips to a new play position time in the media content based on the skip time amount.

[0038] In some embodiments, the skip time amount is determined by calculating the ratio between the play position time and the total media content play time. Alternatively, the skip time amount may be determined by detecting a remaining media content play time (e.g., of a remaining portion **112**, in FIG. **1**B) based on the play position time and the total media content play time and determining the skip time amount based on the remaining media content play time.

[0039] FIG. **2** shows a media content operation skip screen display example, in accordance with disclosed methods and systems. In FIG. **2**, a media content skip operation screen display is configured as a media content skip operation screen display **200** of a media device. FIG. **2** is an example of a media content skip operation performed in a customized mode. In accordance with some disclosed features and methods of the customized mode, a consumer may dynamically customize a skip time of or for a media device. Screen display **200** may be a part of the media device or it may be externally and communicatively located relative to a media device. For the purpose of discussion and illustration, the media content example of screen display **200** is a Harry Potter episode. Screen display **200** is presumed a touchscreen in the example of FIG. **2**, sensitive and reactive to user input. For example, some touchscreens are sensitive and reactive to human skin heat. A user touch activates responsiveness to further user input, such as a user swipe or user button depression. In some embodiments, suitable user input-receiving components other than a touchscreen may be utilized. For example, a user input-capable remote control, a touchpad, a

joystick, and a mouse, are among the host of suitable mechanisms for receiving a user input.
[0040] Screen display **200** is equipped with media content skip functionality. In an embodiment, the skip functionality of screen display **200** comprises one or more skip buttons. In the example of FIG. **2**, screen display **200** includes at least two skip buttons, a skip button **222**, positioned at **202** of screen display **200**, and a skip button **224**, positioned at **230** of screen display **200**. Each of skip buttons **222** and **224** offers a skip time feature functionality, initially set at a default time prior to the start of a recognized user input such as a user touch, push, or click. In the customized mode, skip time amount is adjustable. For example, initially, a recognized skip button **222** touch may set the default time. In the example of FIG. **2**, the default time is set at 10 seconds. In some embodiments, the default time may be set with reference to a media content runtime. It is understood that the default time may be set at any suitable time, 10 seconds being merely one example of many others.
[0041] In contrast to existing preconfigured media content skip features, in FIG. **2**, the skip operation (to skip forward or to skip backward) is flexibly and conveniently customized by media content consumer screen touch, enabling the user with dynamic skip operation customization. In some embodiments, the skip time amount can be determined by overlaying a two-dimensional (2-D) grid, such as grid **208**, on screen display **200** to obtain a user swipe length measurement in response to a user swipe action, such as a user finger swipe along screen display **200**. In an embodiment, grid count may facilitate swipe length measurement in response to a screen display user swipe action. An example user swipe action may be a user index finger swipe along the 2-dimensional grid **208** overlay on screen display **200**, as shown in FIG. **2**.
[0042] In some embodiments, detection of a user input causes skip time amount adjustment. The skip time amount may be adjusted by a user swipe action in a skip direction based on the user swipe direction. The skip time amount may be adjusted based on a length of the swipe action.
[0043] In some embodiments, swipe action length may be determined by measuring the distance determined by a swipe action path. The swipe action length may be defined by a distance covered by a user swipe path, where the swipe distance may determine the skip time amount and the swipe direction may determine whether skip time should be increased or decreased. In FIG. **2**, grid **208** measurements may determine the swipe length and swipe direction and therefore the skip time amount and skip direction, respectively. For example, a user swipe to the right may increase the skip time amount and a user swipe to the left may decrease the skip time amount, or vice versa. In some embodiments, skip time is increased or decreased proportionately to the remaining media content runtime and the swipe length. In FIG. **2**, as the remaining media content runtime (of the remaining portion) decreases, the skip time amount may be automatically decreased, or the user swipe direction may determine whether the skip time increases or decreases. For example, in response to a user swipe to the left (relative to **202**), the skip time amount is lessened based on the swipe length (or path coverage), and in response to a user swipe to the right (relative to **202**), the skip time is increased based on the swipe length (or path coverage). In the example of FIG. **2**, the user swipe action in a left swipe direction (relative to **202**) is a zigzag pattern, and the user swipe action in a right swipe direction (relative to **202**) is more of a linear (or straight line) pattern. A zigzag pattern can clearly cover a greater swipe length on the screen display than a straight line or linear pattern; the skip time amount is accordingly affected.
[0044] In the example of FIG. **2**, a user index finger swipe action to a left direction (looking into the figure page) is shown to extend toward **206** in a meandering (or zig-zag) fashion along screen display **200**. The pattern starts at **202** extending upwardly to an adjacent left-direction upper grid, then travels downwardly, approximately one-grid distance to the left direction from **202**, to a grid situated adjacently below and to the left. The meandering pattern continues upwardly, by a nearly two-grid distance from **202**, to a previously traveled grid positioned before extending downwardly (and to the left) to an adjacent grid, a nearly 2.25-grid distance from **202**, to arrive at **206**. As the user swipe path travels from **202** to **206**, the system skips the media content by a smaller skip time

amount.
[0045] As earlier discussed, in some embodiments, the elapsed media content runtime may be calculated by grid counting, for example using grid **208**. In the example of FIG. **2**, among other possible positions on screen display **200**, the system may automatically reset the default skip time by activating skip button **222** or skip button **224**, a (0,0) x-y coordinate at screen display **200**. A measured swipe action relative to the foregoing x-y coordinate may determine the swipe length and direction and therefore the skip amount and skip direction, respectively.
[0046] As previously explained, in response to a user right swipe direction (from **202** toward **204**), the skip time is increased proportionately to the swipe length based on the remaining media content runtime (remaining portion). It is understood that while in the example of FIG. **2**, a swipe direction to the left causes the media content skip time amount to decrease and a swipe direction to the right causes the media content skip time amount to increase, a media device may be configured in opposite; a left swipe direction may cause an increase and a right swipe direction may cause a decrease in the media content skip time amount. The proportionality between the swipe length and the skip time amount may be a design feature. In some embodiments, the proportionality is based on the corresponding media device screen display size. For example, a minimum skip action, i.e., skip distance, may translate to be a small unit of time (e.g., several seconds).
[0047] In some embodiments, a maximum skip time may be a function of the remaining media content runtime. Assume for example that the maximum distance a user swipe path can cover on the screen display is half of a diagonal dimension of the screen display, i.e., the distance shown at **214** extending from **212** to **210** of screen display **200**. A user swipe action along **214** causes the skip time amount to be a function of the maximum skip time amount for the remaining media content runtime, such that a user swipe action to **210** will cause the skip time amount to be the maximum skip time amount.
[0048] FIG. **2** presents an example media content skip amount flexibility. The media content skip amount granularity is adjustable to achieve flexible and convenient media content skip operation adjustment. The granularity adjustment may be automatic and user driven, facilitating rapid media content skip operation, for example, media content skip advancement, to a user-desired play position. The skip time keeps up with the media content duration. Precision and flexibility in reaching the desired media content play position are realized, at least in part, by replacement of preset (or pre-configured) functionality features, such as a 5-second or a 10-second skip button, with, for example, an adjustable skip button.
[0049] FIG. **3** depicts an illustrative flowchart of a skip time reset process, in accordance with disclosed methods and embodiments. In FIG. **3**, a flowchart of a skip time reset process **300** is shown in accordance with disclosed methods and embodiments. In a nonlimiting example, process **300** comprises relevant steps performed by a system implementing the embodiment of FIG. **2**, specifically, a media device with screen display **200**. For the purpose of clarity, process **300** is hereinafter described relative to the screen display **200** of FIG. **2**. Additionally, a control circuitry, such as control circuitry **1128** or **1120** or computing device **1118** of FIG. **11**, may implement the entire or parts of process **300**, in accordance with example implementations.
[0050] At step **302**, a control circuitry, such as control circuitry **1128** or **1120**, may detect a media content runtime length, represented by “L,” of a user-operated media player. Next, at step **304**, an initial skip time amount, represented by “S,” is set as a function of the media content runtime length, L. In a nonlimiting example, S may be set equal to **2** seconds if L is less than 30seconds or S may be set equal to 5 seconds if L is greater than or equal to 30 seconds and less than or equal to 600 seconds, or S may be set equal to 10 seconds if L is greater than 600 seconds.
[0051] At step **306**, a determination is made of an input in the form of a user action. For example, the system detects an input in the form of a user touch of skip button **222** or skip button **224** in FIG. **2**, on media screen display **200**. In response to a determination that the user has touched the skip button, process **300** continues to step **308**; otherwise, process **300** continues to step **336**.

[0052] At step **308**, a two-dimensional grid, like grid **208** of FIG. **2**, is (electronically) overlaid onto the screen display. In some embodiments, the grid may be a self-contained display screen option alleviating the grid overlay display step. For example, displaying grid **208** may be facilitated by a configurable display setting. In some embodiments, electronic placement of the 2-dimensional overlay may position a play button (such as play button **620** in FIG. **6**) at an approximately center position of a screen display, such as screen display **200**. For example, the play button may be positioned at an x-y axis coordinate (0, 0), to align skip button **222** at the grid (and screen display) center location to allow for maximum user swipe distance in different directions on the screen display. When activated by a user, a play button, such as a play button **620** (FIG. **6**), is detected alerting the start of a user interactive action with the screen display. In some embodiments, step **308** is omitted and a grid is not overlaid on the screen.
[0053] At step **336**, the remaining media content runtime, represented by "R", is determined and step **338** is performed. At step **338**, L is set equal to R. That is, the total media content runtime is set equal to the (updated) remaining media content runtime (R), calculated at step **336**, and the process repeats from step **302**.
[0054] Subsequently, at step **310**, a determination is made as to whether a user swipe versus a user touch is detected. As previously noted, a user swipe or touch may be detected by techniques employed by current touchscreen display technology. In some embodiments, detection of a user action may be performed in other suitable manners. For example, a user stylus action may be detected on the screen display of a user tablet. Pressing the stylus onto the screen display, touching the screen display with the stylus, or any other type of suitable contact with the screen display may be a detected input.
[0055] At step **310**, process **300** proceeds to step **324** in response to determining that a user swipe is detected and proceeds to step **312** in response to determining that a user touch is detected. A user touch may be implemented by a nonlimiting functionality example, such as a screen button (as previously noted), whereas a user swipe is a user displacement action on the screen display, such as the act of dragging the user finger or a stylus across the screen display.
[0056] At step **312**, which skip button (e.g., the right or left button) the user touched is determined. In response to a determination that the user touched the right button (e.g., the skip forward button), process **300** proceeds to step **314**. In response to a determination that the user touched the left button (e.g., the skip backward button), process **300** proceeds to step **316**. At both steps **314** and **316**, the number of detected user touches is determined, and the media content is skipped forward (at step **314**) or skipped backward (at step **316**) based on the detected number of touches. For example, at step **314**, the media content is skipped forward by "N" number of times ("N" being an integer value) based on an "N" number of detected user touches, e.g., N number of detected user touches of the left skip button. In some embodiments, the number of detected user touches (or user swipes) may correspond to the number of skips by which the media content is skipped forward or backward. For example, assuming still that "S" represents the skip time, at step **314**, the media content is advanced by S, an N number of times. In a practical application, at step **314**, a Harry Potter episode may be advanced five times, in response to five detected user touches (or user swipes), and each of the five times, the episode is advanced by 10 seconds or a total of 50 seconds. The episode may be advanced based on units of time or frames. For example, at each of the five detected user touches (or user swipes), the episode may be advanced by one minute, a total of **5** minutes, or at each of the five detected user touches (or user swipes), the episode may be advanced by 300 frames, for a total of 1,500 frames. Correspondingly, the media content may be skipped backward at step **316**, N times, each of the N times by S units. In some embodiments, more than one touch may cause a media content skip operation. For example, the skip operation may be performed every other or every three user touches. It is understood that the steps of process **300** may be implemented in other suitable order with other suitable indications and determinations. For example, an action detection at step **312** may cause the episode to skip backward at step **314** and to

skip forward at step **316**. It will be understood that step **312** is merely illustrative and, in some embodiments, steps **310** and **312** may be combined.

[0057] At step **324**, which skip button (e.g., the right or left button) the user swiped is determined. In response to a determination that the user swiped the right button, process **300** proceeds to step **326**, and in response to a determination that the user swiped the left button, process **300** proceeds to step **322**. At both steps **326** and **322**, the user swipe length and swipe direction are determined. In an example of a user swipe length, as earlier discussed, a greater user swipe path on the screen display may be determinative of a skip time amount, for example, causing a slower (or faster) skip time amount.

[0058] Process **300** proceeds to step **320** from step **322** and to step **330** from step **326**. At each of the steps **320** and **330**, a user swipe direction is detected. In response to a determination at step **320** of a user swipe to the right, process **300** proceeds to step **318**, and in response to a determination at step **320** of a user swipe to the left, process **300** proceeds to step **332**. Correspondingly, in response to a determination at step **330** of a user swipe to the right, process **300** proceeds to step **328**, and in response to a determination at step **330** of a user swipe to the left, process **300** proceeds to step **334**. At each of the steps **318** and **334**, the skip time, S, as a function of an elapsed (viewed portion) media content runtime is reset to a minimum possible skip time granularity, and at each of the steps **332** and **328**, the skip time, S, as a function of a remaining (unviewed portion) media content runtime is reset to a maximum possible skip time granularity. For example, assuming S represents a skip unit of 2x with a maximum skip unit of 10x and a minimum skip unit of 1xl at steps **318** and **334** the skip time is reset to 1x, and at steps **332** and **328** the skip time is reset to 10x, when the swipe distance is the maximum swipe distance. When the swipe distance is less than the maximum swipe distance, then the skip time will be reset to a value between the current skip time(S) and the minimum skip time amount at steps **318** and **334**, and between the current skip time(S) and the maximum skip time amount at steps **332** and **328**. In some embodiments, the amount the skip time is changed is proportional to the swipe distance relative to the maximum swipe distance. Process **300** proceeds to step **306**, awaiting the next user touch or swipe, after each of the steps **318**, **332**, **334**, and **328**. In some embodiments, steps **318**, **332**, **334**, and **328** reset the skip time(S) to a new value that is then used the next time a skip button is touched. In some embodiments, steps **318**, **332**, **334**, and **328** reset the skip time(S) to a new value and skip the media content forward or backwards based on the reset skip time amount.

[0059] FIGS. **4-7** show illustrative examples of various skip operations, in accordance with disclosed embodiments and methods. FIG. **4** shows an example skip operation **400** with a user **406** electronically controlling a media device **402** through an electronic guidance device **404** while user **406** is comfortably sitting on a couch. By way of example, media device **402** may be a television and device **404** may be a remote-control device in electronic communication with the television, through wire or wirelessly. Media device **402** receives input from user **406**. For example, media device **402** may receive user action from user **406** as input. Some examples of user actions are user swipe, user button touch, or user button click on device **404** (a non-touchscreen screen display), which in turn translates the received user actions to digital signals and transmits the digital signals wirelessly to device **402**. In some embodiments, user **406** may control the skip functionality of device **404** as discussed with reference to device **604** of FIG. **6**. In some embodiments, user **406** may control the skip functionality of device **404** through other suitable configuration. For example, a user **406** input action on a skip button may cause a skip time amount adjustment.

[0060] FIG. **5** shows an example skip operation **500** with a user **506** electronically controlling a media device **502** with touchscreen capability at screen display **504**. Media device **502** may be a laptop computer, as shown in FIG. **5**. While sitting on a couch, watching a Harry Potter episode, user **506** can adjust the skip features at screen display **504**. A user **506** swipe action enables user **506** to adjust the skip time amount and skip direction. Pressing on screen display **504** while sliding or swiping in each direction, user **506** can adjust the skip time amount and the skip direction of

media device **502**.

[0061] FIG. **6** illustrates an example skip operation, according to various embodiments of the disclosure. In FIG. **6**, an example skip operation is shown with a media device **600** in accordance with various disclosures. Media device **600** includes a media device screen display **650** presenting a media content **602** undergoing a skip operation. In some embodiments, media device **600** is controlled by a media controller device **604**. For example, media device **600** may be a smart television, a smart phone, a tablet, or computer, controlled by a remote-control device. In some disclosed methods and systems, media controller device **604**, may be absent and all media controller device **604** functions are performed by media device **600**. In some embodiments, media controller device **604** is incorporated, in part or in whole, into media device **600**. In the example of FIG. **6**, media controller device **604** is externally located relative to media device **600**, communicatively coupled by wire or wireless communications techniques to media device **600**. In FIG. **6**, media content **602**, Harry Potter episode XX, plays on screen display **650**.

[0062] In FIG. **6**, media controller device **604** is shown to include multiple skip functionality features. Media controller device **604** functionality features may include skip buttons or other suitable skip functionality, as earlier described. In some embodiments, media controller device **604** includes a right skip button **614**, a left skip button **612**, and the play button **620**. In FIG. **6**, skip buttons **612** and **614** receive user action input for controlling the skip time amount of media content **602**. In response to detecting a user skip action through skip buttons **612** and **614**, the Harry Potter episode XX may be skipped forward or backward, and through physical displacement of media controller device **604**, in, for example, a horizontal direction, parallel to the plane of the figure page, Harry Potter episode XX may be skipped by a skip time amount. For example, a user action physically moving media controller device **604** to the right by a skip length from a play position time, t=t.sub.start, into the Harry Potter episode XX, to a play position time, t.sub.start+t.sub.skip, into the Harry Potter episode XX, skips the Harry Potter episode XX by a skip time amount proportionate to the skip length. In some embodiments, a user action to move media controller device **604** in the right or the left direction may determine the skip direction, alleviating the need for skip buttons **612** and **614**. In these embodiments, the skip length may be determined by the amount of physical displacement of media controller device **604**, as described above. In some embodiments, media controller device **604** includes or is connected to sensor devices, such as motion sensors, to detect the position of media controller device **604** while in motion. In some embodiments, buttons **612** and **614**, when activated, cause media device **600** to perform steps **312**-**316** in FIG. **3**.

[0063] In the example of FIG. **6**, the current play position is a play position between a remaining portion **610** and an elapsed portion **608** of media content **602**. An input, such as a user action, is detected, for example, by a user pressing play button **620** to cause media device **600** to start to play the Harry Potter episode XX from a play position **640**. In an example operation, in FIG. **6**, pressing skip button **614** causes the Harry Potter episode XX to advance from a reference play position, play position time t=t.sub.start, by a skip time amount, t=t.sub.start+t.sub.skip, a total play position time **644**.

[0064] In an example skip operation, control of skip buttons **612** and **614** of media controller device **604** by a media content consumer can facilitate media content adjustment on media device **600** to perform rapid and accurate media content skip operations on the Harry Potter episode XX with convenience and flexibility. For example, a user can skip the episode forward from the beginning of the episode to elapsed portion **608** (at play position time **640**), by pressing skip button **614** (or **612**), “N” number of times. The number of times the skip button is pressed determines the skip time amount. Correspondingly, the user may skip the episode XX backward from play position time **640** to the beginning of episode XX with skip button **614** (or **612**) by pressing the button a user-defined number of times, which determines the skip time amount.

[0065] Media device **600** may optionally include progress functionality features. In some

embodiments, media device **600** includes a media content progress bar **606**. Media content progress bar **606** indicates an elapsed portion **608** of media content **602** with a hashed part of the bar and a remaining portion **610** of media content **602** with an unfilled part of the bar. In some embodiments, the progress functionality features include a current play time and the total play time of the content. In some embodiments, progress functionality features include a percentage that represents the ratio of the elapsed portion to total play time of the content.

[0066] In some embodiments, an overlay grid, analogous to grid **208** (in FIG. **2**), improves user skip time control by enabling the user to reach an intended play position time with greater accuracy. Further, displaying the grid on the media device screen display of media device **600** improves user skip operation convenience. The user is made better aware of the skip operation progress relative to play positions with the benefit of real-time visual access to the relationship between the two. For example, the user may control the skip amount while viewing the play position, for example, decreasing the skip amount when approaching the intended play position. Examples of visual representation of such skip time amount progress are a bar, graph, circle, chart, or any other suitable visual representation. In some embodiments, skip time progress and/or skip time amounts may be by audio representation. For example, media device **600** may announce the skip operation progress relative to media content play positions with internal or external speakers.

[0067] As previously discussed, a viewer may choose to start consuming episode XX from the beginning of the episode to a position past play position **640**, or vice versa, using skip buttons **612**, **614** or a combination of both. The number of different combinations of features and functionalities are too many to list herein. But in any suitable combination, a customized skip time button feature, such as the nonlimiting examples of buttons **612** and **614**, helps improve user experience by converging to the precise user-intended play position in the media content (e.g., a Harry Potter scene).

[0068] It is understood that while various media device features are shown in disclosed embodiments and systems, other suitable features may be employed. For example, display indicators showing other media content attributes may take the place of or serve as added features to those shown and discussed herein. Additionally, disclosed features may be configured differently on a media device screen display than as is disclosed herein.

[0069] In yet another example, shown in FIG. **7**, a user may control skip time functionality through a trackpad **710** of a media device **712**. In the example of FIG. **7**, media device **712** is a laptop computer. A user swipe length and a user swipe direction, on trackpad **710**, corresponds to a skip time amount and a skip direction, respectively. For example, a user swipe from a trackpad position **704** to a trackpad position **706**, by a length **702** in a right swipe direction, respectively, determines the skip time amount and the skip direction of a media content playing on the laptop computer **712**. Correspondingly, a user swipe length **708** in a left direction from trackpad position **704** determines the skip time amount (based on the swipe length) and the skip direction (based on the swipe direction) of a media content playing on the laptop computer **712**.

[0070] FIG. **8** depicts a flowchart of an example mode selection process, in accordance with disclosed methods and embodiments. In FIG. **8**, a flowchart of a mode selection process **800** is shown in accordance with disclosed methods and embodiments. At step **802** of process **800** circuitry, such as control circuitry **1120** or **1128** of computing device **1118** (FIG. **11**), may receive an input indicative of a user action, such as a user button or a user swipe activation. At step **804**, the received input at step **802** is detected as a selection between an automatic mode and a customized mode. In some embodiments, a user may make a mode selection with a push button or swipe action on a touchscreen or using a media controller guide, as previously discussed relative to preceding figures. For example, a user button depression one or more times, as previously discussed relative to skip buttons, may indicate a mode selection a single push button input may indicate an automatic mode selection, and two consecutive push button inputs may indicate a customized mode selection, or vice versa. Alternatively, a user swipe action direction may indicate mode selection. Other

suitable input-driven mode selection mechanisms may be employed. In some embodiments, a default mode selection may be implemented. For example, a user touch on a touchscreen may be indicative of an automatic mode selection until a user swipe action is detected, if at all, signifying a customized mode selection.

[0071] FIG. **9** depicts a flowchart of an example skip time process in an automatic mode, in accordance with disclosed methods and embodiments. In FIG. **9**, a flowchart of a skip process **900** in an automatic mode is shown in accordance with disclosed methods and embodiments. An automatic skip time determination process starts at step **902**. At step **904**, an input is detected to perform a media content skip operation on a media content. Referring to the Harry Potter episode example, a number of user screen display touches, skip button depressions, or screen display swipes, for example, may be detected. In some embodiments, an input circuit **1116** (FIG. **11**) detects an input in the form of a user action. Next, at step **906**, a current play position time in the media content is determined. An example current play position time may be at t-72 minutes, in FIG. **1**B. At step **908**, a skip time amount is determined based on the current play position time (of step **906**) and a total media content play time. An example total media content play time is 120 minutes, in the example of FIG. **1**B. At step **910**, in response to detecting the input at step **904**, the media content is skipped to a new play position time based on the skip time amount determined at step **908**. In some embodiments, processing circuitry **1140** or processing circuitry **1126** of FIG. **11** may perform steps **904**-**910**.

[0072] FIG. **10** depicts a flowchart of an example skip process in a customized mode, in accordance with disclosed methods and embodiments. In FIG. **10**, a flowchart of a skip process **1000** in a customized mode is shown in accordance with disclosed methods and embodiments. Process **1000** begins at step **1002** where a skip time amount is determined in accordance with some embodiments. At step **1004**, an input including a swipe action to adjust the skip time amount to perform a media content skip operation on the media content is detected. In some embodiments, the input includes a user swipe action along a touchscreen, such as the touchscreen of FIG. **2**. The input may include a media controller device displacement and/or one or more skip button actions in a particular direction, as discussed in reference to FIG. **6**. At step **1006**, the skip time amount is based on a swipe action direction, as discussed relative to FIGS. **1**A, **1**B, **2**, and **6**. Next, at step **1008**, a skip time adjustment is performed automatically based on a length of the swipe action, for example, as discussed relative to FIGS. **1**A, **1**B, **2**, and **6**. In some embodiments, processing circuitry **1140** or processing circuitry **1126** of FIG. **11** may perform steps **1002**-**1008**.

[0073] Although a particular order and flow of steps is depicted in each of FIGS. **8**-**10**, it will be understood that in some embodiments one or more of the steps may be modified, moved, removed, or added, and that the flows depicted in FIGS. **8**-**10** may be accordingly and suitably modified.

[0074] FIG. **11** is an illustrative block diagram showing a media content skip operation system incorporating skip operation features, in accordance with some embodiments of the disclosure. In FIG. **11**, a media content skip operation system is configured as a media content skip operation system **1100**, in accordance with some embodiments of the disclosure. In an embodiment, one or more parts of or the entirety of system **1100** may be configured as a system implementing various features, processes, and components of FIGS. **1**-**10**. Although FIG. **11** shows a certain number of components, in various examples, system **1100** may include fewer than the illustrated number of components and/or multiples of one or more of the illustrated number of components.

[0075] System **1100** is shown to include a computing device **1118**, a server **1102** and a communication network **1114**. It is understood that while a single instance of a component may be shown and described relative to FIG. **11**, additional instances of the component may be employed. For example, server **1102** may include, or may be incorporated in, more than one server. Similarly, communication network **1114** may include, or may be incorporated in, more than one communication network. Server **1102** is shown communicatively coupled to computing device **1118** through communication network **1114**. While not shown in FIG. **11**, server **1102** may be

directly communicatively coupled to computing device **1118**, for example, in a system absent or bypassing communication network **1114**.

[0076] Communication network **1114** may comprise one or more network systems, such as, without limitation, an Internet, LAN, WIFI or other network systems suitable for audio processing applications. In some embodiments, system **1100** excludes server **1102**, and functionality that would otherwise be implemented by server **1102** is instead implemented by other components of system **1100**, such as one or more components of communication network **1114**. In still other embodiments, server **1102** works in conjunction with one or more components of communication network **1114** to implement certain functionality described herein in a distributed or cooperative manner. Similarly, in some embodiments, system **1100** excludes computing device **1118**, and functionality that would otherwise be implemented by computing device **1118** is instead implemented by other components of system **1100**, such as one or more components of communication network **1114** or server **1102** or a combination. In still other embodiments, computing device **1118** works in conjunction with one or more components of communication network **1114** or server **1102** to implement certain functionality described herein in a distributed or cooperative manner.

[0077] Computing device **1118** includes control circuitry **1128**, display **1134** and input circuitry **1116**. Control circuitry **1128** in turn includes transceiver circuitry **1162**, storage **1138** and processing circuitry **1140**. In some embodiments, computing device **1118** or control circuitry **1128** may be configured as media devices **402**, **502**, **600**, or **712** of FIGS. **4**, **5**, **6**, and **7**, respectively.

[0078] Server **1102** includes control circuitry **1120** and storage **1124**. Each of storages **1124** and **1138** may be an electronic storage device. As referred to herein, the phrase "electronic storage device" or "storage device" should be understood to mean any device for storing electronic data, computer software, or firmware, such as random-access memory, read-only memory, hard drives, optical drives, digital video disc (DVD) recorders, compact disc (CD) recorders, BLU-RAY disc (BD) recorders, BLU-RAY 3D disc recorders, digital video recorders (DVRs, sometimes called personal video recorders, or PVRs), solid state devices, quantum storage devices, gaming consoles, gaming media, or any other suitable fixed or removable storage devices, and/or any combination of the same. Each storage **1124**, **1138** may be used to store various types of content, metadata, and or other types of data. Non-volatile memory may also be used (e.g., to launch a boot-up routine and other instructions). Cloud-based storage may be used to supplement storages **1124**, **1138** or instead of storages **1124**, **1138**. In some embodiments, control circuitry **1120** and/or **1128** executes instructions for an application stored in memory (e.g., storage **1124** and/or storage **1138**). Specifically, control circuitry **1120** and/or **1128** may be instructed by the application to perform the functions discussed herein. In some implementations, any action performed by control circuitry **1120** and/or **1128** may be based on instructions received from the application. For example, the application may be implemented as software or a set of executable instructions that may be stored in storage **1124** and/or **1138** and executed by control circuitry **1120** and/or **1128**. In some embodiments, the application may be a client/server application where only a client application resides on computing device **1118**, and a server application resides on server **1102**.

[0079] The application may be implemented using any suitable architecture. For example, it may be a stand-alone application wholly implemented on computing device **1118**. In such an approach, instructions for the application are stored locally (e.g., in storage **1138**), and data for use by the application is downloaded on a periodic basis (e.g., from an out-of-band feed, from an Internet resource, or using another suitable approach). Control circuitry **1128** may retrieve instructions for the application from storage **1138** and process the instructions to perform the functionality described herein. Based on the processed instructions, control circuitry **1128** may determine a type of action to perform in response to input received from input circuitry **1116** or from communication network **1114**. For example, in response to a user swipe action and/or swipe direction, control circuitry **1128** may perform the steps of process **300** (FIG. **3**) or processes relative to various

embodiments, such as the example of FIGS. **1**A, **1**B, and **2**.
[0080] In client/server-based embodiments, control circuitry **1128** may include communication circuitry suitable for communicating with an application server (e.g., server **1102**) or other networks or servers. The instructions for carrying out the functionality described herein may be stored on the application server. Communication circuitry may include a cable modem, an Ethernet card, or a wireless modem for communication with other equipment, or any other suitable communication circuitry. Such communication may involve the Internet or any other suitable communication networks or paths (e.g., communication network **1114**). In another example of a client/server-based application, control circuitry **1128** runs a web browser that interprets web pages provided by a remote server (e.g., server **1102**). For example, the remote server may store the instructions for the application in a storage device. The remote server may process the stored instructions using circuitry (e.g., control circuitry **1128**) and/or generate displays. Computing device **1118** may receive the displays generated by the remote server and may display the content of the displays locally via display **1134**. This way, the processing of the instructions is performed remotely (e.g., by server **1102**) while the resulting displays, such as the display windows described elsewhere herein, are provided locally on computing device **1118**. Computing device **1118** may receive inputs from the user via input circuitry **1116** and transmit those inputs to the remote server for processing and generating the corresponding displays. Alternatively, computing device **1118** may receive inputs from the user via input circuitry **1116** and process and display the received inputs locally, by control circuitry **1128** and display **1134**, respectively.
[0081] Server **1102** and computing device **1118** may transmit and receive content and data such as media content via communication network **1114**. For example, server **1102** may be a media content provider, and computing device **1118** may be a smart television configured to download or stream media content, such as a Harry Potter episode, from server **1102**. Control circuitry **1120**, **1128** may send and receive commands, requests, and other suitable data through communication network **1114** using transceiver circuitry **1160**, **1162**, respectively. Control circuitry **1120**, **1128** may communicate directly with each other using transceiver circuits **1160**, **1162**, respectively, avoiding communication network **1114**.
[0082] It is understood that computing device **1118** is not limited to the embodiments and methods shown and described herein. In nonlimiting examples, computing device **1118** may be a television, a Smart TV, a set-top box, an integrated receiver decoder (IRD) for handling satellite television, a digital storage device, a digital media receiver (DMR), a digital media adapter (DMA), a streaming media device, a DVD player, a DVD recorder, a connected DVD, a local media server, a BLU-RAY player, a BLU-RAY recorder, a personal computer (PC), a laptop computer, a tablet computer, a WebTV box, a personal computer television (PC/TV), a PC media server, a PC media center, a handheld computer, a stationary telephone, a personal digital assistant (PDA), a mobile telephone, a portable video player, a portable music player, a portable gaming machine, a smartphone, or any other device, computing equipment, or wireless device, and/or combination of the same capable of suitably displaying and manipulating media content.
[0083] Control circuitry **1120** and/or **1118** may be based on any suitable processing circuitry such as processing circuitry **1126** and/or **1140**, respectively. As referred to herein, processing circuitry should be understood to mean circuitry based on one or more microprocessors, microcontrollers, digital signal processors, programmable logic devices, field-programmable gate arrays (FPGAs), application-specific integrated circuits (ASICs), etc., and may include a multi-core processor (e.g., dual-core, quad-core, hexa-core, or any suitable number of cores). In some embodiments, processing circuitry may be distributed across multiple separate processors, for example, multiple of the same type of processors (e.g., two Intel Core i9 processors) or multiple different processors (e.g., an Intel Core i7 processor and an Intel Core i9 processor). In some embodiments, control circuitry **1120** and/or control circuitry **1118** are configured to implement a media content operation system, such as systems, or parts thereof, that perform various media content manipulation

processes described and shown in connection with FIGS. **3**, and **8**-**10** and/or systems carrying out the features described and shown relative to FIGS. **1**-**2** and **4**-**7**.

[0084] Computing device **1118** receives a user input **1104** at input circuitry **1116**. For example, computing device **1118** may receive a user input like a user swipe or user touch, as previously discussed. In some embodiments, computing device **1118** is a media device (or player) configured as media devices **402**, **502**, **602**, or **712**, with the capability to access media content. It is understood that computing device **1118** is not limited to the embodiments and methods shown and described herein. In nonlimiting examples, computing device **1118** may be a television, a Smart TV, a set-top box, an integrated receiver decoder (IRD) for handling satellite television, a digital storage device, a digital media receiver (DMR), a digital media adapter (DMA), a streaming media device, a DVD player, a DVD recorder, a connected DVD, a local media server, a BLU-RAY player, a BLU-RAY recorder, a personal computer (PC), a laptop computer, a tablet computer, a WebTV box, a personal computer television (PC/TV), a PC media server, a PC media center, a handheld computer, a stationary telephone, a personal digital assistant (PDA), a mobile telephone, a portable video player, a portable music player, a portable gaming machine, a smartphone, or any other television equipment, computing equipment, or wireless device, and/or combination of the same.

[0085] User input **1104** may be received from a user gesture-capturing interface that is separate from device **1118**, such as a remote control device, trackpad or any other suitable user movement sensitive or capture devices, or as part of device **1118**, such as a touchscreen of display **1134**. Transmission of user input **1104** to computing device **1118** may be accomplished using a wired connection, such as an audio cable, USB cable, ethernet cable or the like attached to a corresponding input port at local device **300**, or may be accomplished using a wireless connection, such as Bluetooth, WIFI, WiMAX, GSM, UTMS, CDMA, TDMA, 3G, 4G, 4G LTE, or any other suitable wireless transmission protocol. Input circuitry **1116** may comprise a physical input port such as a 3.5 mm audio jack, RCA audio jack, USB port, ethernet port, or any other suitable connection for receiving audio over a wired connection, or may comprise a wireless receiver configured to receive data via Bluetooth, WIFI, WiMAX, GSM, UTMS, CDMA, TDMA, 3G, 4G, 4G LTE, or other wireless transmission protocols.

[0086] Processing circuitry **1140** may receive input **1104** from input circuit **1116**. Processing circuitry **1140** may convert or translate the received user input **1104** that may be in the form of gestures or movement to digital signals. In some embodiments, input circuit **1116** performs the translation to digital signals. In some embodiments, processing circuitry **1140** (or processing circuitry **1126**, as the case may be) carries out disclosed processes and methods. For example, processing circuitry **1140** or processing circuitry **1126** may perform processes **300**, **800**, **900**, and **1000** of FIGS. **3**, **8**, **9**, and **10**, respectively.

[0087] The systems and processes discussed above are intended to be illustrative and not limiting. One skilled in the art would appreciate that the actions of the processes discussed herein may be omitted, modified, combined, and/or rearranged, and any additional actions may be performed without departing from the scope of the invention. More generally, the above disclosure is meant to be exemplary and not limiting. Only the claims that follow are meant to set bounds as to what the present disclosure includes. Furthermore, it should be noted that the features and limitations described in any one embodiment may be applied to any other embodiment herein, and flowcharts or examples relating to one embodiment may be combined with any other embodiment in a suitable manner, done in different orders, or done in parallel. In addition, the systems and methods described herein may be performed in real time. It should also be noted that the systems and/or methods described above may be applied to, or used in accordance with, other systems and/or methods.

Claims

1. (canceled)
2. A method comprising: generating for display media content; generating for display a particular icon that is selectable to skip forward or skip backward from a current play position time in the media content to a new play position time in the media content by a skip time amount; detecting, while the particular icon is being generated for display, a first input associated with the particular icon; based on detecting the first input: adjusting the skip time amount by which to skip forward or skip backward in the media content for a future selection of the particular icon, wherein the skip time amount is adjusted before the future selection is detected; detecting a second input comprising a selection of the particular icon associated with the adjusted skip time amount; and based on detecting the second input, performing a skip operation to skip forward or skip backward to a different play position in the media content by the adjusted skip time amount.
3. The method of claim 2, further comprising: detecting a third input comprising a selection of the particular icon associated with the adjusted skip time amount; and based on detecting the third input, resetting the skip time amount.
4. The method of claim 3, further comprising: determining an amount of time that elapsed between detecting the second input and detecting the third input; wherein the skip time amount is reset based on determining that the amount of time that elapsed between detecting the second input and detecting the third input is greater than a threshold amount of time.
5. The method of claim 2, wherein the first input comprises a swipe action, and detecting the first input further comprises determining that the particular icon is included in a path of the swipe action.
6. The method of claim 2, wherein: generating for display the particular icon further comprises causing the displayed particular icon to comprise an indication of the skip time amount, and the method further comprises, based on adjusting the skip time amount, generating for display the particular icon by causing the indication to be modified to comprise the adjusted skip time amount.
7. The method of claim 2, further comprising: detecting a plurality of additional inputs associated with the particular icon; and further adjusting the skip time amount, for one or more future selections of the particular icon, based on each detected input of the plurality of inputs.
8. The method of claim 2, wherein: the first input comprises a swipe action; the method further comprises: determining a distance covered by the swipe action; and determining a direction of the swipe action; and adjusting the skip time amount comprises: determining, based on the distance covered by the swipe action, a particular amount by which to adjust the skip time amount; and determining, based on the direction of the swipe action, whether to increase or decrease the skip time by the particular amount.
9. The method of claim 2, wherein adjusting the skip time amount is further based at least in part on a remaining amount of play time in the media content.
10. The method of claim 9, wherein adjusting the skip time amount based at least in part on the remaining amount of play time in the media content further comprises: determining an initial skip time amount by comparing a total media content play time to a first predefined threshold; in response to determining the total media content play time is less than the first predefined threshold, setting the skip time amount to a first value corresponding to the initial skip time amount; and updating the skip time amount based on the remaining amount of play time in the media content, as the current play position time progresses.
11. The method of claim 10, further comprising: in response to determining the total media content play time is greater than the first predefined threshold, determining whether the total media content play time is less than a second predefined threshold; and in response to determining the total media content play time is less than the second predefined threshold, setting the skip time amount to a second value corresponding to the initial skip time amount, wherein the second value is greater than the first value.

12. A computer-implemented system comprising: input/output (I/O) circuitry; control circuitry configured to: generate for display media content; generate for display a particular icon that is selectable to skip forward or skip backward from a current play position time in the media content to a new play position time in the media content by a skip time amount; wherein the I/O circuitry is configured to: detect, while the particular icon is being generated for display, a first input associated with the particular icon; and wherein the control circuitry is further configured to: in response to detecting the first input: adjust the skip time amount by which to skip forward or skip backward in the media content for a future selection of the particular icon, wherein the skip time amount is adjusted before the future selection is detected; wherein the I/O circuitry is further configured to: detect a second input comprising a selection of the particular icon associated with the adjusted skip time amount; and wherein the control circuitry is further configured to: in response to detecting the second input, perform a skip forward or skip backward operation to skip to a different play position in the media content by the adjusted skip time amount.

13. The system of claim 12, wherein the control circuitry is further configured to: detect a third input comprising a selection of the particular icon associated with the adjusted skip time amount; and based on detecting the third input, reset the skip time amount.

14. The system of claim 13, wherein the control circuitry is further configured to: determine an amount of time that elapsed between detecting the second input and detecting the third input; wherein the skip time amount is reset based on determining that the amount of time that elapsed between detecting the second input and detecting the third input is greater than a threshold amount of time.

15. The system of claim 12, wherein the first input comprises a swipe action, and the I/O circuitry is configured to detect the first input by determining that the particular icon is included in a path of the swipe action.

16. The system of claim 12, wherein: the control circuitry is further configured to generate for display the particular icon further by causing the displayed particular icon to comprise an indication of the skip time amount, and the control circuitry is further configured to, in response to adjusting the skip time amount, generating for display the particular icon by causing the indication to be modified to comprise the adjusted skip time amount.

17. The system of claim 12, wherein the control circuitry is further configured to: detect a plurality of additional inputs associated with the particular icon; and further adjust the skip time amount, for one or more future selections of the particular icon, based on each detected input of the plurality of inputs.

18. The system of claim 12, wherein: the first input comprises a swipe action; the control circuitry is further configured to: determine a distance covered by the swipe action; determine a direction of the swipe action; and adjust the skip time amount by: determining, based on the distance covered by the swipe action, a particular amount by which to adjust the skip time amount; and determining, based on the direction of the swipe action, whether to increase or decrease the skip time by the particular amount.

19. The system of claim 12, wherein the control circuitry is configured to adjust the skip time amount further based at least in part on a remaining amount of play time in the media content.

20. The system of claim 19, wherein the control circuitry is configured to adjust the skip time amount based at least in part on the remaining amount of play time in the media content further by: determining an initial skip time amount by comparing a total media content play time to a first predefined threshold; in response to determining the total media content play time is less than the first predefined threshold, setting the skip time amount to a first value corresponding to the initial skip time amount; and updating the skip time amount based on the remaining amount of play time in the media content, as the current play position time progresses.

21. The system of claim 20, wherein the control circuitry is further configured to: in response to determining the total media content play time is greater than the first predefined threshold,

determine whether the total media content play time is less than a second predefined threshold; and in response to determining the total media content play time is less than the second predefined threshold, set the skip time amount to a second value corresponding to the initial skip time amount, wherein the second value is greater than the first value.