

VIDEO INTERACTION METHOD AND APPARATUS, DEVICE, MEDIUM, AND PROGRAM PRODUCT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority of Chinese Patent Application No. 202411975472.9, filed on December 30, 2024, which is incorporated herein by reference in its entirety as part of the present application.

TECHNICAL FIELD

[0002] The present disclosure relates to a video interaction method, a video interaction apparatus, an electronic device, a computer-readable storage medium, and a computer program product.

BACKGROUND

[0003] With the development of electronic technologies, videos have become one of the main ways to obtain information. During video playback, the playback progress of a video may be adjusted by dragging a playback progress bar or performing a slide operation on a video playback page, so as to play video segments of interest to a user according to requirements.

SUMMARY

[0004] The part of the summary is provided so as to introduce the concept in a brief form, and these concepts will be described in detail in the following part of detailed description. The part of the summary is not intended to identify key features or essential features of the claimed technical solution, nor is it intended to limit the scope of the claimed technical solution required.

[0005] At least one embodiment of the present disclosure provides a video interaction method. The method includes: in response to a first adjustment operation for a playback progress of a video, displaying a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar, where the target position corresponds to a current playback progress of the video; and moving the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.

[0006] At least one embodiment of the present disclosure provides a video interaction apparatus. The apparatus includes: a marker display module configured to, in response to a first adjustment operation for a playback progress of a video, display a first marker at a target position of a playback progress bar for the

video and display a second marker moving according to the first adjustment operation on the playback progress bar, where the target position corresponds to a current playback progress of the video; and a marker movement module configured to move the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.

[0007] At least one embodiment of the present disclosure provides an electronic device. The device includes: a processing apparatus, and a storage apparatus including one or more computer program instructions; the one or more computer program instructions, when executed by the processing apparatus, implement the video interaction method provided by at least one embodiment of the present disclosure.

[0008] At least one embodiment of the present disclosure provides a computer-readable storage medium storing computer-readable instructions non-transiently; the computer-readable instructions, when executed by a processor, implement the video interaction method provided by at least one embodiment of the present disclosure.

[0009] At least one embodiment of the present disclosure provides a computer program product including a computer program/instruction, where the computer program/instruction, when running on a computer, causes the computer to execute the video interaction method provided by at least one embodiment of the present disclosure.

BRIEF DESCRIPTION OF DRAWINGS

[0010] The above and other features, advantages and aspects of the embodiments of the present disclosure will become more apparent when taken in conjunction with the drawings and with reference to the following detailed description. Throughout the drawings, the same or similar reference numbers refer to the same or similar elements. It should be understood that the drawings are schematic and that the components and elements are not necessarily drawn to scale.

[0011] Fig. 1 schematically shows a flowchart of a video interaction method provided by at least one embodiment of the present disclosure;

[0012] Fig. 2 schematically shows a schematic diagram of video interaction on a video playback page according to at least one embodiment of the present disclosure;

[0013] Fig. 3 schematically shows a schematic diagram of video interaction on a video playback page according to at least another embodiment of the present disclosure;

[0014] Fig. 4 schematically shows a flowchart of a video interaction method provided by at least another embodiment of the present disclosure;

[0015] Fig. 5 schematically shows a schematic diagram of interaction for canceling a playback progress adjustment in response to a target operation according to at least one embodiment of the present disclosure;

- [0016] Fig. 6 schematically shows a schematic diagram of interaction for canceling a playback progress adjustment in response to a target operation according to at least another embodiment of the present disclosure;
- [0017] Fig. 7 schematically shows a schematic diagram of interaction for canceling a playback progress adjustment in response to a target operation according to at least yet another embodiment of the present disclosure;
- [0018] Fig. 8 schematically shows a schematic diagram of a playback page according to at least one embodiment of the present disclosure;
- [0019] Fig. 9 schematically shows a schematic diagram of interaction for continuing to adjust a playback progress in a process of performing a target operation according to at least one embodiment of the present disclosure;
- [0020] Fig. 10 schematically shows a structural block diagram of a video interaction apparatus provided by at least one embodiment of the present disclosure; and
- [0021] Fig. 11 shows a structural schematic diagram of an electronic device suitable for implementing the embodiments of the present disclosure.

DETAILED DESCRIPTION OF EMBODIMENTS

- [0022] The embodiments of the present disclosure will be described in more detail below with reference to the drawings. Although certain embodiments of the present disclosure are shown in the drawings, it should be understood that the present disclosure may be implemented in various forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided for a more thorough and complete understanding of the present disclosure. It should be understood that the drawings and embodiments of the present disclosure are only for illustrative purposes, and are not intended to limit the protection scope of the present disclosure.
- [0023] It should be understood that the various steps described in the method implementations of the present disclosure may be performed in different orders and/or in parallel. Furthermore, the method implementations may include additional steps and/or omit the implementation of some shown steps. The scope of the present disclosure is not limited in this regard.
- [0024] The term "include/comprise" and its variants used herein are open-ended inclusions, that is, "include/comprise but not limited to". The term "based on" means "based at least in part on". The term "an embodiment" means "at least one embodiment"; the term "another embodiment" means "at least one other embodiment"; the term "some embodiments" means "at least some embodiments". Relevant definitions of other terms will be given in the following description.
- [0025] It should be noted that concepts such as "first" and "second" mentioned in the present disclosure are only used to distinguish different apparatuses, modules or units, and are not used to limit the order of functions performed by these apparatuses, modules or units or interdependence therebetween.

- [0026] It should be noted that the modifiers of "a" and "a plurality of" mentioned in the present disclosure are illustrative rather than restrictive, and those skilled in the art should understand that "one or more" should be understood unless otherwise clearly indicated in the context.
- [0027] The names of messages or information exchanged between a plurality of apparatuses in the implementations of the present disclosure are only for illustrative purposes, and are not intended to limit the scope of these messages or information.
- [0028] With the development of electronic technologies, videos have become one of the main ways to obtain information. During video playback, the playback progress of a video may be adjusted by dragging a playback progress bar or performing a slide operation on a video playback page, so as to play video segments of interest to a user according to requirements.
- [0029] In the process of adjusting the playback progress of a video, there is a need to return to the current playback progress or cancel the adjustment of the playback progress to continue to play the video. However, a video player usually does not have such a function, and thus cannot meet the user's need for canceling playback progress adjustment.
- [0030] In order to solve the technical problem at least partially, at least one embodiment of the present disclosure provides a video interaction method. The method includes: in response to a first adjustment operation for a playback progress of a video, displaying a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar, where the target position corresponds to a current playback progress of the video; and moving the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.
- [0031] At least one embodiment of the present disclosure further provides a video interaction apparatus, a device, a medium and a program product.
- [0032] In the video interaction method provided by the above embodiment of the present disclosure, by displaying the first marker and the second marker on the playback progress bar, the current playback progress and the adjustment point of the playback progress can be explicitly displayed to the user who adjusts the video playback progress, which is convenient for the user to move the adjustment point to the current playback progress when the user wants to cancel the adjustment of the playback progress. Furthermore, by moving the second marker to the target position in response to the second marker being moved within the predetermined range of the current playback progress and the movement of the second marker satisfying the predetermined movement condition, the effect of automatically adjusting the playback progress to the current playback progress can be achieved, thereby avoiding the situation that the adjustment point needs to be constantly moved near the current playback progress in order to accurately position the adjustment point to the current playback progress, and improving the efficiency of canceling the adjustment of the playback progress. In addition, the process of automatically moving the second

marker to the target position can allow the user to feel that the second marker is adsorbed to the position corresponding to the current playback progress, so that the user may be provided with an obvious perception effect of canceling the adjustment of the video playback progress, which is favorable for improving the interaction experience in the process of video playback.

[0033] The embodiments of the present disclosure and some examples thereof are described in detail below with reference to the drawings.

[0034] At least one embodiment of the present disclosure provides a video interaction method suitable for being executed by a computer, and the method may be applied, for example, in a video playback scenario, for example, for displaying a video playback page for a user, and adjusting a playback progress of a video and canceling the adjustment of the playback progress in response to a user operation.

[0035] For example, the video interaction method may be implemented in the form of software, hardware, firmware or any combination thereof, and loaded and executed by a processor in a device such as a mobile phone, a digital camera, a tablet computer, a laptop computer, a desktop computer, a network server, etc., so as to cancel the adjustment of the video playback progress in a more perceptible manner.

[0036] For example, the video interaction method is applicable to a computing apparatus, and the computing apparatus includes any electronic device having a computing function, such as a mobile phone, a digital camera, a laptop computer, a tablet computer, a desktop computer, a network server, etc., which may load and execute the video interaction method, and the embodiment of the present disclosure does not limit this. For example, the computing apparatus may include a central processing unit (Central Processing Unit, CPU) or a graphics processing unit (Graphics Processing Unit, GPU), a digital signal processor (DSP) and other forms of processing units with data processing capability and/or instruction execution capability, a storage unit, etc. The computing apparatus is also installed with an operating system, an application programming interface (such as OpenGL (Open Graphics Library), Metal, etc.), etc., and the video interaction method provided by the embodiment of the present disclosure is implemented by running codes or instructions. For example, the computing apparatus may further include an output component such as a display component, and the display component is, for example, a liquid crystal display (Liquid Crystal Display, LCD), an organic light emitting diode (Organic Light Emitting Diode, OLED) display screen, a quantum dot light emitting diode (Quantum Dot Light Emitting Diode, QLED) display screen, etc., which is not limited by the embodiment of the present disclosure. For example, the display component may display the video whose playback progress has been adjusted, and may display the video according to the current playback progress after the adjustment of the playback progress is canceled.

[0037] Fig. 1 schematically shows a flowchart of a video interaction method provided by at least one embodiment of the present disclosure.

[0038] As shown in Fig. 1, the video interaction method 100 of this embodiment includes steps S110-S120.

- [0039] In step S110, in response to a first adjustment operation for a playback progress of a video, displaying a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar.
- [0040] In step S120, moving the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.
- [0041] Exemplarily, the first adjustment operation may be an operation of dragging the playback progress bar, or may be an operation of sliding at any position or a specified position on a playback page of the video. The slide operation may be, for example, a left-right slide operation, an up-down slide operation, or a slide operation in a specified direction. The specified direction may be determined by presetting. The operation of dragging the playback progress bar may be, for example, an operation of sliding on the playback progress bar along the playback progress bar. The operation mode of the above first adjustment operation is merely an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto.
- [0042] Exemplarily, the target position is a position corresponding to a current playback progress of the video. In the process of responding to the first adjustment operation, the current playback progress may be updated according to a playback rate of the video and a duration of the process of responding to the first adjustment operation. The display position of the first marker is the target position, and the first marker can indicate the current playback progress.
- [0043] Exemplarily, a moving distance of the display position of the second marker is positively correlated with a sliding distance of the sliding operation included in the first adjustment operation, so that the second marker moves with the execution of the sliding operation. The display position of the second marker may be the position of the adjustment point of the playback progress, so as to indicate the adjustment point of the playback progress. It should be understood that the position of the adjustment point of the playback progress changes in response to the first adjustment operation.
- [0044] Exemplarily, the predetermined range of the current playback progress may be a time range defined by two time points that are a first predetermined duration away from a time point corresponding to the current playback progress. For example, if a duration corresponding to a distance between the position of the second marker on the playback progress bar and the target position is less than the first predetermined duration, the second marker is moved within the predetermined range. It should be understood that the first predetermined duration may be set according to actual needs, and the embodiments of the present disclosure do not limit this.
- [0045] Exemplarily, the predetermined movement condition may include one or more of the following conditions: a moving direction of the second marker being a direction toward the target position (i.e., a direction close to the target position), a moving rate of the second marker reaching a predetermined rate,

and a duration of the second marker moving continuously within a predetermined range being less than a second predetermined duration.

[0046] For example, in one embodiment, the predetermined movement condition may be: the moving direction of the second marker is the direction toward the target position, and the moving rate of the second marker reaches the predetermined rate. In another embodiment, the predetermined movement condition may be: the moving direction of the second marker is the direction toward the target position, and the duration of the second marker moving continuously within the predetermined range is less than the second predetermined duration. In yet another embodiment, the predetermined movement condition may be: the duration of the second marker moving continuously within the predetermined range is less than the second predetermined duration. In still another embodiment, the predetermined movement condition may be: the moving direction of the second marker is the direction toward the target position, the moving rate of the second marker reaches the predetermined rate, and the duration of the second marker moving continuously within the predetermined range is less than the second predetermined duration. It should be understood that the above predetermined movement condition is merely an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto.

[0047] Exemplarily, in the case that the second marker is moved within the predetermined range and the movement of the second marker satisfies the predetermined movement condition, the process of moving the second marker to the target position may be understood as moving the second marker from its current position to the target position in a jumping manner (e.g., the second marker does not move through an area between the current position and the target position), or moving the second marker to the target position at another rate that is greater than a current moving rate (e.g., positively correlated with a sliding rate of the sliding operation included in the first adjustment operation). For example, the process of moving the second marker to the target position may be any process that may provide an adsorption effect, which is not limited by the embodiments of the present disclosure.

[0048] In at least one embodiment of the present disclosure, by displaying the first marker and the second marker on the playback progress bar, the current playback progress and the adjustment point of the playback progress can be displayed in an explicit manner to the user who adjusts the video playback progress, which is convenient for the user to move the adjustment point to the current playback progress when the user wants to cancel the adjustment of the playback progress. Furthermore, by moving the second marker to the target position in response to the second marker being moved within the predetermined range of the current playback progress and the movement of the second marker satisfying the predetermined movement condition, the effect of automatically adjusting the playback progress to the current playback progress can be achieved, thereby avoiding the situation that the adjustment point needs to be constantly moved near the current playback progress in order to accurately position the adjustment point to the current playback progress, and improving the efficiency of canceling the adjustment of the playback progress. In addition, the process of automatically moving the second marker to the target

position can allow the user to feel that the second marker is adsorbed to the position corresponding to the current playback progress, so that the user can be provided with an obvious perception effect of canceling the adjustment of the video playback progress, which is favorable for improving the interaction experience in the process of video playback.

[0049] According to the embodiment of the present disclosure, in the case that the second marker is moved within the predetermined range of the current playback progress, but the movement of the second marker does not satisfy the predetermined movement condition, the second marker may be moved according to the first adjustment operation. When the second marker is moved within the predetermined range, but the moving direction is away from the target position, the moving speed is slow or the moving duration is long, there may be a situation that the user wants to adjust the playback progress to a certain progress close to but different from the current playback progress, therefore, the second marker may be moved according to the first adjustment operation without moving the second marker to the target position, so that the adjustment of the playback progress may better meet actual needs, which is favorable for improving the video interaction experience.

[0050] Exemplarily, after the second marker is moved to the target position, the user may further continue to perform the first adjustment operation, that is, after the second marker is moved to the target position, the operating body (such as a finger, a stylus or a cursor indicating a mouse) does not release the playback page of the video, but continues to perform the adjustment operation for the playback progress of the video. In the process of continuing to perform the adjustment operation, if the second marker is within the predetermined range of the current playback progress, but the movement of the second marker does not satisfy the predetermined movement condition, the second marker is moved according to the adjustment operation.

[0051] For example, while the user continues to perform the first adjustment operation, the duration of the second marker moving continuously within the predetermined range of the current playback progress gradually increases. In response to the duration failing to reach the second predetermined duration, the second marker may be moved to the target position. In response to the duration reaching the second predetermined duration, the second marker is controlled to move with the first adjustment operation. For example, the duration of the second marker within the predetermined range of the current playback progress refers to the cumulative duration in a single adjustment operation, and the single adjustment operation may take the release of the video playback page by the operating body as the termination condition.

[0052] For example, in one embodiment, in response to the duration reaching the second predetermined duration, it may further be determined whether the moving direction of the second marker is the direction toward the target position, and/or whether the moving rate of the second marker is greater than the predetermined rate. In response to the moving direction being not toward the target position, or the moving rate being greater than the predetermined rate, it is determined that the movement of the second

marker does not satisfy the predetermined movement condition, and the second marker continues to be moved according to the first adjustment operation.

[0053] Exemplarily, if the second marker moves outside the predetermined range of the current playback progress, it may be determined that there is currently no need to adjust the playback progress to the current playback progress. Correspondingly, in the case that the second marker is outside the predetermined range of the current playback progress, the second marker may be moved according to the first adjustment operation, regardless of whether the movement of the second marker satisfies the predetermined movement condition.

[0054] For example, the display style of the first marker may be the same as or different from the display style of the second marker. In at least one embodiment of the present disclosure, in order to better distinguish the first marker from the second marker, the display style of the first marker is different from the display style of the second marker. A detailed description will be given below with reference to the schematic diagram of video interaction on a video playback page shown in Fig. 2 according to at least one embodiment of the present disclosure.

[0055] As shown in Fig. 2, in response to the first adjustment operation, the first marker 211 and the second marker 212 are displayed on the video playback page 210. The display style of the second marker 212 is different from the display style of the first marker 211. For example, the display size of the second marker 212 may be different from the display size of the first marker 211, for example, the display size of the second marker may be larger than the display size of the first marker. According to the actual situation, at least one of attributes that affect the display style, such as the display pattern, display color, display size, etc., of the first marker 211 and the second marker 212 may be different. For example, the display pattern of the first marker 211 and/or the second marker 212 may be related to the theme of the currently played video, and the embodiments of the present disclosure are not limited thereto.

[0056] For example, in response to the first adjustment operation, the second marker 212 approaches the position of the first marker 211 in the direction illustrated as the arrow shown in Fig. 2. When the second marker 212 is moved to the target position (i.e., the position of the first marker 211) in response to the second marker 212 being moved within the predetermined range of the current playback progress and the movement of the second marker 212 satisfying the predetermined movement condition, the playback progress bar of the video on the video playback page 210 may be updated to the playback progress bar on the video playback page 220. On the video playback page 220, the first marker 211 overlaps the second marker 212, and the display style of the second marker 212 is adjusted to the display style of the first marker. In this way, the user may more clearly perceive that the playback progress is adjusted to the current playback progress, that is, the adjustment of the playback progress is canceled.

[0057] For example, in the case that the movement of the second marker does not satisfy the predetermined movement condition, if the second marker is moved to the target position in response to the first adjustment operation, the display style of the second marker may not be adjusted, that is, the first marker and the second marker are displayed distinctively. In this way, when the user wants to adjust the

playback progress to a certain progress close to but different from the current playback progress, this embodiment may better indicate the adjustment point of the playback progress to the user, which is favorable for improving the adjustment experience and adjustment efficiency of the playback progress.

[0058] Exemplarily, in response to moving the second marker to the target position, a playback device of the video may be controlled to vibrate, thereby enhancing the perception effect that the adjustment of the playback progress is canceled.

[0059] For example, a developer of a video playback application may implement the control of the vibration of the playback device through configuration, and the embodiment of the present disclosure does not limit a specific configuration manner. For example, the playback device of the video may be an execution device of the video interaction method, such as a smart wearable device, a smart home appliance, a mobile phone, a tablet computer, a laptop computer or a desktop computer, etc., which is not limited by the embodiment of the present disclosure.

[0060] For example, the vibration of the playback device may be synchronized with the process of moving the second marker to the target position, or a certain time difference between the vibration of the playback device and moving the second marker to the target position may be set according to requirements. For example, in response to it being detected that the second marker starts to be moved to the target position because the movement of the second marker satisfies the predetermined movement condition, the playback device may be controlled to vibrate, and the vibration effect may continue until the second marker is moved to the target position. It is also possible to control the playback device to vibrate after it is detected that the second marker has been moved to the target position, which is not limited by the embodiment of the present disclosure.

[0061] Fig. 3 schematically shows a schematic diagram of video interaction on a video playback page in at least another embodiment of the present disclosure.

[0062] In at least one embodiment of the present disclosure, in response to an adjustment operation for the playback progress of the video, the display style of the playback progress bar of the video may be changed, for example, changed into a style that is conducive to the operation. As shown in Fig. 3, in the process of video playback, the display style of the playback progress bar may be the style 311 shown on the video playback page 310. In the case that the first adjustment operation is detected, the display style of the playback progress bar is adjusted to the style 321 shown on the video playback page 320.

[0063] For example, compared with the style 311, the style 321 may have a playback progress bar with a larger height, so as to facilitate the operating body to locate the position of the playback progress bar and adjust the playback progress. The above change in the style of the playback progress bar is only an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto.

[0064] For example, it may be determined that the first adjustment operation is detected in response to it being detected that a duration of the operating body staying at a position near the playback progress bar or the aforementioned specified position reaches a third predetermined duration, or in response to it being

detected that the operating body slides at the position of the playback progress bar or near the aforementioned specified position, which is not limited by the embodiments of the present disclosure.

[0065] For example, the playback progress bar may only be displayed in response to any operation on the playback page of the video being detected, that is, in the process of normal video playback, the playback progress bar may be in a hidden state, so as to improve the video viewing experience. The any operation may include a single-click operation or a double-click operation, etc., and the operation position of the any operation may be any position on the video playback page, or may be a hidden position of the playback progress bar, etc., which is not limited by the embodiments of the present disclosure.

[0066] Fig. 4 schematically shows a flowchart of a video interaction method provided by at least another embodiment of the present disclosure.

[0067] In at least one embodiment of the present disclosure, as shown in Fig. 4, the video interaction method 400 may include steps S430 to S440.

[0068] In step S430, displaying first prompt information in a first area of a playback page of a video, in response to the first adjustment operation.

[0069] In step S440, cancelling an adjustment for the playback progress to play the video according to the current playback progress, in response to a target operation for the first prompt information.

[0070] Exemplarily, the first area may be a position adjacent to a display position of a playback progress bar, or may be any position on the playback page of the video. The position of the first area may be set according to actual needs. For example, the position of the first area may be set with an objective of improving user experience, which is not limited by the embodiments of the present disclosure.

[0071] Exemplarily, the first prompt information may include an interactive control, or may include information for prompting the target operation, etc. The target operation for the first prompt information may include an operation on the interactive control, or may include an operation matching the operation prompted by the first prompt information, etc., which is not limited by the embodiments of the present disclosure. After the target operation is detected, the adjustment of the playback progress in response to the first adjustment operation may be cancelled.

[0072] Exemplarily, the operation prompted by the first prompt information may be, for example, an operation of an operating body staying at an adjustment point of the playback progress for a fourth predetermined duration, or may be a double-click operation of the operating body at the adjustment point, etc., which is not limited by the embodiments of the present disclosure.

[0073] Exemplarily, the video interaction method 400 may further display a first marker at a target position of the playback progress bar and display a second marker moving according to the first adjustment operation on the playback progress bar, in response to the first adjustment operation, so as to facilitate the execution of the first adjustment operation.

[0074] According to the embodiments of the present disclosure, by displaying the first prompt information in the first area after the first adjustment operation for the playback progress is detected, the user can conveniently cancel the adjustment of the playback progress, and by displaying the first prompt

information, the learning cost of the operation of canceling the playback progress adjustment can be reduced.

[0075] The specific implementation of the first prompt information will be further expanded and described below with reference to Fig. 5 to Fig. 7.

[0076] Fig. 5 schematically shows a schematic diagram of interaction for cancelling a playback progress adjustment in response to a target operation in at least one embodiment of the present disclosure.

[0077] In at least one embodiment, as shown in Fig. 5, the first prompt information may include a target control 513. The target control 513 may be displayed at a boundary position between a video playback area and a non-video playback area on a video playback page 510. The target control 513 is an interactive control.

[0078] For example, the target control 513 may be displayed in any form that indicates cancellation of the playback progress adjustment, for example, in a form of "×", or in a form of an arc arrow pointing to a front position of the playback progress bar. The front position of the playback progress bar is determined relative to a playback duration of the video, for example, a position with a shorter playback duration is the front position. It should be understood that the above display forms of the target control are merely examples to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto.

[0079] For example, an operation on the target control 513 may be an operation of selecting the target control or any other operation that may trigger the target control 513, for example, a single-click or double-click operation on the target control 513, or an operation of staying at the target control 513 for a duration that satisfies a condition, etc., which is not limited by the embodiments of the present disclosure.

[0080] Exemplarily, as shown in Fig. 5, the operation of triggering the target control 513 may include, for example, an operation of sliding from an operation position of the first adjustment operation (i.e., a display position of the second marker 512 or any position close to the display position of the second marker 512) to a display position of the target control 513, and releasing the target control 513. For example, the sliding trajectory of sliding from the operation position of the first adjustment operation to the target control 513 may be indicated by the dotted line shown on the playback page 520 in Fig. 5. According to actual needs, the video playback page may or may not display the sliding trajectory. The dotted line indicating the sliding trajectory shown on the playback page 520 is merely an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto, as long as the start point of the sliding trajectory is the operation position of the first adjustment operation and the end point of the sliding trajectory is the display position of the target control 513. Through the operation of triggering the target control 513 in this embodiment, the first adjustment operation and the triggering operation may be performed continuously, which can provide a smoother experience for the user's operation.

[0081] In at least one embodiment of the present disclosure, the playback page after the playback progress adjustment is cancelled may be page 530. After the playback progress adjustment is cancelled,

the playback page may continue to play the video according to the current playback progress, and the display of the first prompt information and the marker that are displayed in response to the first adjustment operation may be cancelled, so as to improve the video playback experience.

[0082] Exemplarily, after the playback progress adjustment is cancelled, only the display of the first prompt information and the second marker 512 may be cancelled, while the display of the first marker 511 is not cancelled, so that the user may more clearly perceive the current playback progress. Alternatively, after the playback progress adjustment is cancelled, the display of the first prompt information, the first marker, the second marker and the playback progress bar may be cancelled, so that the video playback page becomes cleaner and the video playback experience is improved.

[0083] Fig. 6 schematically shows a schematic diagram of interaction for cancelling a playback progress adjustment in response to a target operation in at least another embodiment of the present disclosure.

[0084] In at least one embodiment of the present disclosure, as shown in Fig. 6, in the interaction process of cancelling the playback progress adjustment in response to the target operation, second prompt information 614 may further be displayed to prompt the execution of the target operation, thereby reducing the learning cost of the operation of cancelling the playback progress adjustment.

[0085] For example, the second prompt information 614 may be displayed in a second area of the video playback page in response to an operation of sliding from an operation position of the first adjustment operation (e.g., a display position of the second marker 612) to a display position of the target control 613. For example, the second prompt information may include information indicating an operation of releasing the target control 613. For example, the second prompt information may include information such as "Release to cancel dragging". The second area may be any area close to the target control 613, and the embodiments of the present disclosure are not limited thereto.

[0086] For example, the second prompt information 614 may be displayed in response to the operating body staying at the operation position of the first adjustment operation for a relatively long duration. The second prompt information may include information indicating a trigger operation on the target control, for example, information indicating a slide operation and a release operation, so as to prompt the user of the implementation method of the operation of cancelling the playback progress adjustment. For example, the second prompt information may include information such as "Slide from the current position to the cancel control and release, to cancel dragging".

[0087] It should be understood that the above second prompt information is merely an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto.

[0088] After displaying the second prompt information, in the embodiment of the present disclosure, the adjustment for the playback progress may be canceled in response to the execution of the operation matching the second prompt information. For example, the adjustment for the playback progress may be cancelled in response to the operation of releasing the target control, and accordingly, the playback page 610 may be updated to the playback page 620.

- [0089] Fig. 7 schematically shows a schematic diagram of interaction for cancelling a playback progress adjustment in response to a target operation in at least yet another embodiment of the present disclosure.
- [0090] In at least one embodiment, the first prompt information may include first information indicating a target area adjacent to the playback progress bar. For example, the first information may be contour information of the target area. For example, as shown in Fig. 7, in the video playback page 710, the first information 713 is information of a part of the contour of the target area that is far from the playback progress bar.
- [0091] For example, the playback progress bar may be displayed outside the target area, or the target area may be located above the playback progress bar and adjacent to the playback progress bar.
- [0092] For example, the target operation for the first prompt information may include an operation of sliding from the operation position of the first adjustment operation (i.e., the display position of the second marker 712) to outside the target area. Alternatively, the target operation may include a double-click operation in the target area, an operation of staying in the target area for a duration greater than a predetermined duration, etc., which is not limited by the embodiments of the present disclosure.
- [0093] For example, the target operation may be an operation of sliding from the operation position of the first adjustment operation to outside the target area (i.e., the contour shown by the first information 713), and releasing the playback page 710. For example, the sliding trajectory of the operating body sliding from the display position of the second marker 712 to outside the target area may be indicated by the dotted line shown on the playback page 720 in Fig. 7. According to actual needs, the playback page may or may not display the sliding trajectory. The dotted line indicating the sliding trajectory shown on the playback page 720 is merely an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto, as long as the start point of the sliding trajectory is the operation position of the first adjustment operation and the end point of the sliding trajectory is any position outside the target area. Through the setting of the target operation in this embodiment, the first adjustment operation and the target operation can be performed continuously, which may provide a smoother experience for the user's operation.
- [0094] In at least one embodiment of the present disclosure, the playback page after the playback progress adjustment is cancelled may be page 730. After the playback progress adjustment is cancelled, the playback page may continue to play the video according to the current playback progress, and the display of the first prompt information and the marker displayed in response to the first adjustment operation may be cancelled, so as to improve the video playback experience.
- [0095] Exemplarily, after the playback progress adjustment is cancelled, only the display of the first prompt information and the second marker 712 may be cancelled, while the display of the first marker 711 is not cancelled, so that the user may more clearly perceive the current playback progress. Alternatively, after the playback progress adjustment is cancelled, the display of the first prompt information, the first marker, the second marker and the playback progress bar may be cancelled, so that the video playback page becomes cleaner and the video playback experience is improved.

[0096] Fig. 8 schematically shows a schematic diagram of a playback page in at least one embodiment of the present disclosure.

[0097] In at least one embodiment of the present disclosure, as shown in Fig. 8, in the playback page 810, the first prompt information displayed in the first area includes, in addition to the first information 813 indicating the target area, second information 814 indicating the target operation. For example, the second information 814 may be displayed outside the target area indicated by the first information. According to actual needs, the second information 814 may also be displayed outside the target area. For example, the second information may include information such as "Slide out of this area to cancel dragging" or "Slide out of this area and release to cancel the playback progress adjustment", which is not limited by the embodiments of the present disclosure. By displaying the second information, the learning cost of the operation of cancelling the playback progress adjustment may be reduced.

[0098] In at least one embodiment of the present disclosure, the video interaction method may prominently display the first prompt information in response to the target operation for the first prompt information. By prominently displaying the first prompt information, a more eye-catching effect of reminding the user of the target operation of cancelling the playback progress adjustment can be achieved, thereby further improving the user experience.

[0099] For example, the target operation includes at least a slide operation of sliding from the operation position of the first adjustment operation to a position where the first prompt information is located. In one embodiment, the first prompt information may be prominently displayed in response to the slide operation. For example, in another embodiment, the first prompt information may be prominently displayed in response to the operating body leaving the operation position of the first adjustment operation and the operating body not releasing the video playback page.

[0100] In at least one embodiment of the present disclosure, the video interaction method may control a playback device of the video to vibrate in response to the target operation for the first prompt information, thereby enhancing the perception effect of canceling the adjustment of the playback progress.

[0101] For example, the target operation includes at least a slide operation of sliding from the operation position of the first adjustment operation to the position where the first prompt information is located. In one embodiment, the playback device may be controlled to start vibrating in response to the execution of the slide operation, until the adjustment of the playback progress is cancelled. For example, in another embodiment, the playback device may also be controlled to start vibrating in response to the operating body sliding from the operation position of the first adjustment operation to the position where the first prompt information is located, until the adjustment of the playback progress is cancelled. The embodiment of the present disclosure does not limit the timing of controlling the device to start vibrating.

[0102] Fig. 9 schematically shows a schematic diagram of interaction for continuing to adjust a playback progress in a process of performing a target operation in at least one embodiment of the present disclosure.

[0103] In at least one embodiment of the present disclosure, the target operation for the first prompt information may include two sub-operations performed in sequence.

[0104] For example, the target operation may include at least one slide operation and one release operation performed in sequence. The slide operation may include an operation of sliding from the operation position of the first adjustment operation to the position where the first prompt information is located, and according to actual needs, the slide operation may further include an operation of sliding from the position where the first prompt information is located to other areas. The other area may be, for example, any area on the playback page other than the first area where the first prompt information is displayed and the operation area of the first adjustment operation, which is not limited by the embodiments of the present disclosure. The release operation may include an operation of releasing the video playback page.

[0105] In at least one embodiment of the present disclosure, the video interaction method may move the second marker according to a second adjustment operation for the playback progress, in response to detecting the second adjustment operation before at least two sub-operations included in the target operation are performed.

[0106] For example, in response to the operating body failing to perform the release operation after executing the slide operation included in the target operation, but continuing to slide to the adjustment area of the playback progress (e.g., the execution area of the aforementioned first adjustment operation) to perform the adjustment operation for the playback progress of the video, the second marker may be moved according to the adjustment operation.

[0107] In one embodiment, as shown in Fig. 9, taking the case that the first prompt information includes the first information indicating the target area, and the target operation includes a slide operation of sliding from the operation position of the first adjustment operation into the target area and then sliding from the target area to outside the target area, and a release operation of releasing the playback page as an example, the video interaction method may be responsive to the slide operation of the operating body on the playback page 910 along the sliding trajectory indicated by the dotted line with the indicator arrows in Fig. 9, that is, the slide operation of sliding from the operation position of the first adjustment operation (i.e., the display position of the second marker 912) into the target area (i.e., the area indicated by the first information 913) and then sliding from the target area to the playback progress bar, and the second marker 912 is moved according to the adjustment operation for the playback progress. It should be understood that the sliding trajectory indicated by the dotted line shown in Fig. 9 is merely an example to facilitate understanding of the present disclosure, and the embodiments of the present disclosure are not limited thereto.

[0108] Through this embodiment, the user can cancel the operation of cancelling the playback progress adjustment at any time in the process of cancelling the playback progress adjustment, and continue to adjust the playback progress according to the adjustment operation, thereby improving the diversity of video interaction and improving the user experience.

- [0109] Based on the video interaction method provided by at least one embodiment of the present disclosure, at least one embodiment of the present disclosure further provides a video interaction apparatus, which will be described in detail below with reference to Fig. 10.
- [0110] Fig. 10 schematically shows a structural block diagram of a video interaction apparatus provided by at least one embodiment of the present disclosure.
- [0111] As shown in Fig. 10, the video interaction apparatus 1000 of this embodiment includes a marker display module 1010 and a marker movement module 1020. For example, these units or modules may be implemented through hardware (e.g., circuit) modules or software modules, etc., which is the same as the embodiments below and will not be repeated. For example, these units or modules may be implemented by a central processing unit (CPU), a general-purpose graphics processing unit (GPGPU), a graphics processing unit (GPU), a tensor processing unit (TPU), a field programmable logic gate array (FPGA) or other forms of processing units with data processing capability and/or instruction execution capability, and corresponding computer instructions.
- [0112] The marker display module 1010 is configured to, in response to a first adjustment operation for a playback progress of a video, display a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar. For example, the target position corresponds to a current playback progress of the video. Exemplarily, the marker display module 1010 may be configured to perform step S110 described above, and for the specific implementation method of the marker display module 1010, reference may be made to the relevant description of step S110, which will not be repeated herein.
- [0113] The marker movement module 1020 is configured to move the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition. Exemplarily, the marker movement module 1020 may be configured to perform step S120 described above, and for the specific implementation method of the marker movement module 1020, reference may be made to the relevant description of step S120, which will not be repeated herein.
- [0114] In at least one embodiment of the present disclosure, the marker movement module 1020 may be further configured to move the second marker according to the first adjustment operation, in response to the second marker being moved within the predetermined range of the current playback progress and the movement of the second marker not satisfying the predetermined movement condition.
- [0115] In at least one embodiment of the present disclosure, when the second marker is moved according to the first adjustment operation, the display style of the second marker is different from the display style of the first marker. In this embodiment, the video interaction apparatus may further include a marker style adjustment module configured to adjust the display style of the second marker into the display style of the first marker, in response to moving the second marker to the target position.

- [0116] In at least one embodiment of the present disclosure, the video interaction apparatus may further include a first device control module configured to control a playback device of the video to vibrate, in response to moving the second marker to the target position.
- [0117] In at least one embodiment of the present disclosure, the predetermined movement condition may include at least one selected from the group consisting of the following: a moving direction of the second marker being a direction toward the target position; a moving rate of the second marker reaching a predetermined rate; and a duration of the second marker moving continuously within the predetermined range of the current playback progress being less than a predetermined duration.
- [0118] In at least one embodiment of the present disclosure, the video interaction apparatus may further include an information display module and a progress adjustment module. The information display module is configured to display first prompt information in a first area of a playback page of a video, in response to the first adjustment operation. The progress adjustment module is configured to cancel an adjustment for the playback progress to play the video according to the current playback progress, in response to a target operation for the first prompt information.
- [0119] In at least one embodiment of the present disclosure, the first prompt information includes a target control. The progress adjustment module is configured to cancel the adjustment for the playback progress in response to an operation of triggering the target control.
- [0120] In at least one embodiment of the present disclosure, the progress adjustment module may include an information display sub-module and a progress adjustment sub-module. The information display sub-module is configured to display second prompt information in a second area of the playback page, in response to an operation of sliding from an operation position of the first adjustment operation to a display position of the target control. The second prompt information includes information indicating an operation of releasing the target control. The progress adjustment sub-module is configured to cancel the adjustment for the playback progress in response to the operation of releasing the target control.
- [0121] In at least one embodiment of the present disclosure, the first prompt information includes first information indicating a target area adjacent to the playback progress bar. The progress adjustment module is configured to cancel the adjustment for the playback progress in response to an operation of sliding from the operation position of the first adjustment operation to outside the target area and releasing the playback page.
- [0122] In at least one embodiment of the present disclosure, the first prompt information further includes second information indicating the target operation.
- [0123] In at least one embodiment of the present disclosure, the information display module is further configured to prominently display the first prompt information in response to the target operation for the first prompt information.
- [0124] In at least one embodiment of the present disclosure, the video interaction apparatus may further include a first device control module configured to control a playback device of the video to vibrate, in response to moving the second marker to the target position.

[0125] In at least one embodiment of the present disclosure, the target operation for the first prompt information includes at least two sub-operations performed in sequence. The marker movement module 1020 may be further configured to move the second marker according to a second adjustment operation for the playback progress, in response to detecting the second adjustment operation before the at least two sub-operations are performed.

[0126] It should be noted that, for clarity and conciseness of representation, the embodiments of the present disclosure do not show all the components of the video interaction apparatus 1000. In order to realize the necessary functions of the video interaction apparatus 1000, those skilled in the art may provide and set other components not shown according to specific needs, and the embodiments of the present disclosure are not limited thereto.

[0127] At least one embodiment of the present disclosure further provides an electronic device. The electronic device includes a processing apparatus and a storage apparatus, the storage apparatus includes one or more computer program modules, the one or more computer program modules are stored in the storage apparatus and configured to be executed by the processing apparatus, and the one or more computer program modules are used to implement the video interaction method provided by any embodiment of the present disclosure.

[0128] For example, the processing apparatus may be a central processing unit (CPU), a digital signal processor (DSP), a graphics processing unit (GPU), a general-purpose graphics processing unit (GPGPU) or other forms of processing units with data processing capability and/or instruction execution capability, may be a general-purpose processor or a dedicated processor, and may control other components in the electronic device to perform desired functions.

[0129] For example, the storage apparatus may include one or more computer program products, and the computer program product may include various forms of computer-readable storage medium, such as volatile memory and/or non-volatile memory. The volatile memory may include, for example, a random access memory (RAM) and/or a cache memory (cache). The non-volatile memory may include, for example, a read-only memory (ROM), a hard disk, a flash memory, etc. One or more computer program instructions may be stored on the computer-readable storage medium, and the processing apparatus may run the program instructions to implement the functions (implemented by the processing apparatus) in the embodiments of the present disclosure and/or other desired functions, such as the video interaction method. Various applications and various data, such as the target position, the current playback progress, and various data used and/or generated by the applications, may also be stored in the computer-readable storage medium.

[0130] Reference is made to Fig. 11 below, which shows a schematic structural diagram of an electronic device (e.g., a terminal device or a server) 1100 suitable for implementing the embodiments of the present disclosure. The terminal device in the embodiments of the present disclosure may include, but is not limited to, mobile terminals such as a mobile phone, a notebook computer, a digital broadcast receiver, a PDA (personal digital assistant), a PAD (tablet computer), a PMP (portable multimedia player), a vehicle-

mounted terminal (e.g., a vehicle navigation terminal), etc., and fixed terminals such as a digital TV, a desktop computer, etc. The electronic device shown in Fig. 11 is only an example, and should not impose any limitation on the functions and application scope of the embodiments of the present disclosure.

[0131] As shown in Fig. 11, the electronic device 1100 may include a processing apparatus (e.g., a central processing unit, a graphics processing unit, etc.) 1101, which may perform various appropriate actions and processes according to a program stored in a read-only memory (ROM) 1102 or a program loaded from a storage apparatus 1108 into a random access memory (RAM) 1103. In the RAM 1103, various programs and data required for operations of the electronic device 1100 are also stored. The processing apparatus 1101, the ROM 1102 and the RAM 1103 are connected to each other through a bus 1104. An input/output (I/O) interface 1105 is also connected to the bus 1104.

[0132] Usually, the following apparatuses may be connected to the I/O interface 1105: an input apparatus 1106 including, for example, a touch screen, a touchpad, a keyboard, a mouse, a camera, a microphone, an accelerometer, a gyroscope, etc.; an output apparatus 1107 including, for example, a liquid crystal display (LCD), a speaker, a vibrator, etc.; a storage apparatus 1108 including, for example, a magnetic tape, a hard disk, etc.; and a communication apparatus 1109. The communication apparatus 1109 may allow the electronic device 1100 to communicate wirelessly or wiredly with other devices to exchange data. Although Fig. 11 shows the electronic device 1100 having various apparatuses, it should be understood that it is not required to implement or have all the apparatuses shown. Alternatively, more or fewer apparatuses may be implemented or provided.

[0133] In particular, according to the embodiments of the present disclosure, the process described above with reference to the flowchart may be implemented as a computer software program. For example, the embodiments of the present disclosure include a computer program product, which includes a computer program carried on a non-transitory computer-readable medium, and the computer program contains program codes for performing the method shown in the flowchart. In such an embodiment, the computer program may be downloaded and installed from a network through the communication apparatus 1109, or installed from the storage apparatus 1108, or installed from the ROM 1102. When the computer program is executed by the processing apparatus 1101, the above-mentioned functions defined in the method of the embodiments of the present disclosure are executed.

[0134] It should be noted that the above-mentioned computer-readable medium in the present disclosure may be a computer-readable signal medium or a computer-readable storage medium or any combination of the two. The computer-readable storage medium may be, for example, but is not limited to, an electrical, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus or device, or any combination of the above. More specific examples of the computer-readable storage medium may include, but are not limited to: an electrical connection with one or more wires, a portable computer magnetic disk, a hard disk, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM or flash memory), an optical fiber, a portable compact disk read-only memory (CD-ROM), an optical storage device, a magnetic storage device, or any suitable

combination of the above. In the present disclosure, a computer-readable storage medium may be any tangible medium that contains or stores a program, which may be used by or in combination with an instruction execution system, apparatus or device. In the present disclosure, a computer-readable signal medium may include a data signal propagated in a baseband or as a part of a carrier wave, and a computer-readable program code is carried therein. This propagated data signal may take many forms, including but not limited to an electromagnetic signal, an optical signal, or any suitable combination of the above. The computer-readable signal medium may also be any computer-readable medium other than the computer-readable storage medium, and the computer-readable signal medium may send, propagate or transmit the program used by or in combination with the instruction execution system, apparatus or device. The program code contained on the computer-readable medium may be transmitted by any suitable medium, including but not limited to: a wire, an optical cable, an RF (radio frequency), etc., or any suitable combination of the above.

[0135] In some implementations, clients and servers may communicate using any currently known or future developed network protocol, such as HTTP (HyperText Transfer Protocol), and may be interconnected with any form or medium of digital data communication (for example, a communication network). Examples of the communication network include a local area network ("LAN"), a wide area network ("WAN"), an internet (for example, the Internet), a peer-to-peer network (for example, an Ad-Hoc network), and any network currently known or to be developed in the future.

[0136] The above-mentioned computer-readable medium may be contained in the above-mentioned electronic device; or it may exist alone without being assembled into the electronic device.

[0137] The above-mentioned computer-readable medium carries one or more programs, and when the one or more programs are executed by the electronic device, the electronic device: displays a first marker at a target position of a playback progress bar for a video and displays a second marker moving according to a first adjustment operation on the playback progress bar, in response to the first adjustment operation for a playback progress of the video, where the target position corresponds to a current playback progress of the video; and moves the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.

[0138] The computer program codes for performing the operations of the present disclosure may be written in one or more programming languages or a combination thereof, where the programming languages include but not limited to object-oriented programming languages, such as Java, Smalltalk, C++, and include conventional procedural programming languages, such as "C" language or similar programming languages. The program codes may be executed entirely on a computer of a user, partly on the computer of the user, as a stand-alone software package, partly on the computer of the user and partly on a remote computer, or entirely on the remote computer or a server. In the case of involving the remote computer, the remote computer may be connected to the computer of the user through any kind of

network, including a local area network (LAN) or a wide area network (WAN), or it may be connected to an external computer (for example, connected by using Internet provided by an Internet service provider).

[0139] The flowcharts and block diagrams in the drawings illustrate the possibly implemented architectures, functions and operations of the system, the method and the computer program product according to various embodiments of the present disclosure. In this regard, each block in the flowchart or block diagram may represent a module, a program segment, or a part of code, which contains one or more executable instructions for implementing the specified logical functions. It should also be noted that, in some alternative implementations, the functions marked in the blocks may also occur in an order different from that marked in the drawings. For example, two blocks shown in succession may actually be performed substantially in parallel, or they may sometimes be performed in the reverse order, depending on the functions involved. It should also be noted that each block in the block diagram and/or the flowchart, and a combination of the blocks in the block diagram and/or the flowchart may be implemented by a dedicated hardware-based system that executes specified functions or operations, or may be implemented by a combination of dedicated hardware and computer instructions.

[0140] The units or modules involved in the embodiments of the present disclosure may be implemented by software or by hardware. Among them, the names of units or modules do not constitute a limitation on the units or modules per se under certain circumstances.

[0141] The functions described above herein may be at least partially performed by one or more hardware logic components. For example, without limitation, exemplary types of hardware logic components that may be used include: a field programmable gate array (FPGA), an application specific integrated circuit (ASIC), an application specific standard product (ASSP), a system on chip (SOC), a complex programmable logical device (CPLD), etc.

[0142] In the context of the present disclosure, a machine-readable medium may be a tangible medium that may contain or store a program for use by or in combination with an instruction execution system, apparatus or device. The machine-readable medium may be a machine-readable signal medium or a machine-readable storage medium. The machine-readable medium may include, but is not limited to, an electrical, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus or device, or any suitable combination of the above. More specific examples of the machine-readable storage medium may include an electrical connection based on one or more wires, a portable computer disk, a hard disk, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM or flash memory), an optical fiber, a portable compact disk read-only memory (CD-ROM), an optical storage device, a magnetic storage device, or any suitable combination of the above.

[0143] According to one or more embodiments of the present disclosure, Example 1 provides a video interaction method, including:

[0144] in response to a first adjustment operation for a playback progress of a video, displaying a first marker at a target position of a playback progress bar for the video and displaying a second marker

- moving according to the first adjustment operation on the playback progress bar, where the target position corresponds to a current playback progress of the video; and
- [0145] moving the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.
- [0146] According to one or more embodiments of the present disclosure, Example 2 provides the video interaction method of Example 1, further including:
- [0147] moving the second marker according to the first adjustment operation, in response to the second marker being moved within the predetermined range of the current playback progress and the movement of the second marker not satisfying the predetermined movement condition.
- [0148] According to one or more embodiments of the present disclosure, Example 3 provides Example 1, where when the second marker is moved according to the first adjustment operation, a display style of the second marker is different from a display style of the first marker. The video interaction method of at least one embodiment of the present disclosure further includes:
- [0149] adjusting the display style of the second marker into the display style of the first marker, in response to moving the second marker to the target position.
- [0150] According to one or more embodiments of the present disclosure, Example 4 provides the video interaction method of any one of Example 1 to Example 3, further including:
- [0151] controlling a playback device of the video to vibrate, in response to moving the second marker to the target position.
- [0152] According to one or more embodiments of the present disclosure, Example 5 provides that the predetermined movement condition in Example 1 includes at least one selected from the group consisting of the following:
- [0153] a moving direction of the second marker being a direction toward the target position;
- [0154] a moving rate of the second marker reaching a predetermined rate; and
- [0155] a duration of the second marker moving continuously within the predetermined range of the current playback progress being less than a predetermined duration.
- [0156] According to one or more embodiments of the present disclosure, Example 6 provides the video interaction method of Example 1, further including:
- [0157] displaying first prompt information in a first area of a video playback page, in response to the first adjustment operation; and
- [0158] cancelling an adjustment for the playback progress to play the video according to the current playback progress, in response to a target operation for the first prompt information.
- [0159] According to one or more embodiments of the present disclosure, Example 7 provides that the first prompt information in Example 5 includes a target control, and cancelling the adjustment for the playback progress in response to the target operation for the first prompt information includes:

- [0160] cancelling the adjustment for the playback progress in response to an operation of triggering the target control.
- [0161] According to one or more embodiments of the present disclosure, Example 8 provides that the operation of triggering the target control in Example 7 includes:
- [0162] an operation of sliding from an operation position of the first adjustment operation to a display position of the target control and releasing the target control.
- [0163] According to one or more embodiments of the present disclosure, Example 9 provides that cancelling the adjustment for the playback progress in response to the operation of triggering the target control in Example 8 includes:
- [0164] displaying second prompt information in a second area of the playback page in response to an operation of sliding from the operation position of the first adjustment operation to the display position of the target control, where the second prompt information includes information indicating an operation of releasing the target control; and
- [0165] cancelling the adjustment for the playback progress in response to the operation of releasing the target control.
- [0166] According to one or more embodiments of the present disclosure, Example 10 provides that the first prompt information in Example 6 includes first information indicating a target area adjacent to the playback progress bar; and cancelling the adjustment for the playback progress in response to the target operation for the first prompt information includes:
- [0167] cancelling the adjustment for the playback progress in response to an operation of sliding from the operation position of the first adjustment operation to outside the target area and releasing the playback page.
- [0168] According to one or more embodiments of the present disclosure, Example 11 provides that the first prompt information in Example 10 further includes second information indicating the target operation.
- [0169] According to one or more embodiments of the present disclosure, Example 12 provides the video interaction method of Example 6, further including:
- [0170] prominently displaying the first prompt information in response to the target operation for the first prompt information.
- [0171] According to one or more embodiments of the present disclosure, Example 13 provides the video interaction method of Example 6 or Example 12, further including:
- [0172] controlling a playback device of the video to vibrate, in response to the target operation for the first prompt information.
- [0173] According to one or more embodiments of the present disclosure, Example 14 provides that the target operation for the first prompt information in Example 6 includes at least two sub-operations performed in sequence; and the video interaction method of Example 6 further includes:

- [0174] moving the second marker according to a second adjustment operation for the playback progress, in response to detecting the second adjustment operation before the at least two sub-operations are performed.
- [0175] According to one or more embodiments of the present disclosure, Example 15 provides a video interaction apparatus, including:
- [0176] a marker display module configured to, in response to a first adjustment operation for a playback progress of a video, display a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar; and
- [0177] a marker movement module configured to move the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.
- [0178] According to one or more embodiments of the present disclosure, Example 16 provides an electronic device, including:
- [0179] a processing apparatus; and
- [0180] a storage apparatus including one or more computer program instructions,
- [0181] where the one or more computer program instructions, when executed by the processing apparatus, implement the video interaction method provided by at least one embodiment of the present disclosure.
- [0182] According to one or more embodiments of the present disclosure, Example 17 provides a computer-readable storage medium storing computer-readable instructions non-transiently, where the computer-readable instructions, when executed by a processor, implement the video interaction method provided by at least one embodiment of the present disclosure.
- [0183] According to one or more embodiments of the present disclosure, Example 18 provides a computer program product including a computer program/instruction, where the computer program/instruction, when running on a computer, causes the computer to execute the video interaction method provided by at least one embodiment of the present disclosure.
- [0184] The above description is only preferred embodiments of the present disclosure and an explanation of the applied technical principles. Those skilled in the art should understand that the scope of disclosure involved in the present disclosure is not limited to the technical solution formed by the specific combination of the above technical features, and should also cover other technical solutions formed by any combination of the above technical features or their equivalent features without departing from the above disclosed concept. For example, a technical solution formed by replacing the above features with technical features with similar functions disclosed in the present disclosure (but not limited to).
- [0185] In addition, although the operations are depicted in a specific order, this should not be understood as requiring the operations to be performed in the specific order shown or in a sequential order. Under

certain circumstances, multitasking and parallel processing may be beneficial. Likewise, although the above discussion contains several specific implementation details, these should not be interpreted as limiting the scope of the present disclosure. Certain features that are described in the context of separate embodiments may also be implemented in combination in a single embodiment. Conversely, various features described in the context of a single embodiment may also be implemented in multiple embodiments individually or in any suitable sub-combination.

[0186] Although the subject matter has been described in language specific to structural features and/or logical actions of the method, it should be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or actions described above. Conversely, the specific features and actions described above are merely exemplary forms for implementing the claims.

CLAIMS

1. A video interaction method, comprising:

in response to a first adjustment operation for a playback progress of a video, displaying a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar, wherein the target position corresponds to a current playback progress of the video; and

moving the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.

2. The method according to claim 1, further comprising:

moving the second marker according to the first adjustment operation, in response to the second marker being moved within the predetermined range of the current playback progress and the movement of the second marker not satisfying the predetermined movement condition.

3. The method according to claim 1 or 2, wherein when the second marker is moved according to the first adjustment operation, a display style of the second marker is different from a display style of the first marker; and the method further comprises:

adjusting the display style of the second marker into the display style of the first marker, in response to the second marker being moved to the target position.

4. The method according to any one of claims 1 to 3, further comprising:

controlling a playback device of the video to vibrate, in response to moving the second marker to the target position.

5. The method according to any one of claims 1 to 4, wherein the predetermined movement condition comprises at least one selected from a group consisting of the following:

a moving direction of the second marker being a direction toward the target position;

a moving rate of the second marker reaching a predetermined rate; and

a duration of the second marker moving continuously within the predetermined range of the current playback progress being less than a predetermined duration.

6. The method according to any one of claims 1 to 5, further comprising:

displaying first prompt information in a first area of a playback page of a video, in response to the first adjustment operation; and

cancelling an adjustment for the playback progress to play the video according to the current playback progress, in response to a target operation for the first prompt information.

7. The method according to claim 6, wherein the first prompt information comprises a target control; and cancelling the adjustment for the playback progress in response to the target operation for the first prompt information comprises:

cancelling the adjustment for the playback progress in response to an operation of triggering the target control.

8. The method according to claim 7, wherein the operation of triggering the target control comprises: an operation of sliding from an operation position of the first adjustment operation to a display position of the target control and releasing the target control.

9. The method according to claim 8, wherein cancelling the adjustment for the playback progress in response to the operation of triggering the target control comprises:

displaying second prompt information in a second area of the playback page, in response to an operation of sliding from the operation position of the first adjustment operation to the display position of the target control, wherein the second prompt information comprises information indicating an operation of releasing the target control; and

cancelling the adjustment for the playback progress in response to the operation of releasing the target control.

10. The method according to claim 6, wherein the first prompt information comprises first information indicating a target area adjacent to the playback progress bar; and

cancelling the adjustment for the playback progress in response to the target operation for the first prompt information comprises:

cancelling the adjustment for the playback progress in response to an operation of sliding from an operation position of the first adjustment operation to outside the target area and releasing the playback page.

11. The method according to claim 10, wherein the first prompt information further comprises second information indicating the target operation.

12. The method according to any one of claims 6 to 11, further comprising:

prominently displaying the first prompt information, in response to the target operation for the first prompt information.

13. The method according to any one of claims 6 to 12, further comprising:

controlling a playback device of the video to vibrate, in response to the target operation for the first prompt information.

14. The method according to claim 6, wherein the target operation for the first prompt information comprises at least two sub-operations performed in sequence; and

the method further comprises:

in response to detecting a second adjustment operation before the at least two sub-operations are performed, moving the second marker according to the second adjustment operation for the playback progress.

15. A video interaction apparatus, comprising:

a marker display module configured to, in response to a first adjustment operation for a playback progress of a video, display a first marker at a target position of a playback progress bar for the video and displaying a second marker moving according to the first adjustment operation on the playback progress bar, wherein the target position corresponds to a current playback progress of the video; and

a marker movement module configured to move the second marker to the target position to play the video according to the current playback progress, in response to the second marker being moved within a predetermined range of the current playback progress and a movement of the second marker satisfying a predetermined movement condition.

16. An electronic device, comprising:

a processing apparatus; and

a storage apparatus comprising one or more computer program instructions,

wherein the one or more computer program instructions, when executed by the processing apparatus, implement the method according to any one of claims 1 to 14.

17. A computer-readable storage medium storing computer-readable instructions non-transiently, wherein the computer-readable instructions, when executed by a processor, implement the method according to any one of claims 1 to 14.

18. A computer program product comprising a computer program/instruction, wherein the computer program/instruction, when running on a computer, causes the computer to execute the method according to any one of claims 1 to 14.