

INFORMATION PUSH METHOD AND DEVICE

TECHNICAL FIELD

This application relates to the field of information technologies, and in particular, to an information push method and device.

5 BACKGROUND

In the Internet era, watching anchors' live streaming of daily lives through a live streaming platform, has become a new routine of mass entertainment. Many anchors present and recommend some valuable information or useful products to play terminal users through live streaming, for example, pretty clothes, interesting novels, funny microblogs, and durable
10 electric appliances.

However, existing live streaming platforms cannot support the play terminal users in directly accessing, during watching the live streaming, a web page on which the recommended information is located. The play terminal users need to record a feature of the recommended information, and then search for the information on the network or offline,
15 which takes time and efforts. In addition, because a live streaming video cannot be played back, the play terminal users often cannot accurately record the feature of the recommended information, which makes the information obtained by the play terminal users often inconsistent with the recommended information.

It can be learned that the information push method in the existing technologies is
20 relatively inconvenient for the play terminal users.

SUMMARY

Embodiments of this application provide an information push method and device, to resolve a problem that an existing information push method is relatively inconvenient for a play terminal user.

25 An information push method provided in an embodiment of this application includes:
receiving, by a live streaming terminal in a live streaming process, a push information identifier input by a live streaming terminal user; and
sending the push information identifier to a live streaming platform server, for the live streaming platform server to determine an access address of push information based on the

push information identifier, and push the access address to a play terminal for presentation, for the play terminal to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

An information push method provided in an embodiment of this application includes:

5 receiving, by a live streaming platform server in a live streaming process, a push information identifier sent by a live streaming terminal;

determining an access address of push information based on the push information identifier; and

10 pushing the access address to a play terminal for presentation, for the play terminal to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

An information push method provided in an embodiment of this application includes:

receiving, by a play terminal in a live streaming process, an access address of push information sent by a live streaming platform server;

15 presenting the received access address; and

displaying, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

An information push method provided in an embodiment of this application includes:

20 receiving, by a live streaming terminal in a live streaming process, a product identifier input by a live streaming terminal user; and

25 sending the product identifier to a live streaming platform server, for the live streaming platform server to determine a purchase address of a product based on the product identifier, and push the purchase address to a play terminal for presentation, for the play terminal displays, when detecting that the purchase address is triggered by a play terminal user, a web page corresponding to the purchase address.

An information push method provided in an embodiment of this application includes:

receiving, by a live streaming platform server in a live streaming process, a product identifier sent by a live streaming terminal;

determining a purchase address of a product based on the product identifier; and

30 pushing the purchase address to a play terminal for presentation, for the play terminal to display, when detecting that the purchase address is triggered by a play terminal user, a web page corresponding to the purchase address.

An information push method provided in an embodiment of this application includes:

receiving, by a play terminal in a live streaming process, a purchase address of a product that is sent by a live streaming platform server;

presenting the received purchase address; and

displaying, when detecting that the purchase address is triggered by a play terminal user,

5 a web page corresponding to the purchase address.

An information push device provided in an embodiment of this application includes:

a receiving module, configured to receive, in a live streaming process, a push information identifier input by a live streaming terminal user; and

10 a sending module, configured to send the push information identifier to a live streaming platform server, for the live streaming platform server to determine an access address of push information based on the push information identifier, and push the access address to a play terminal for presentation, for the play terminal to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

An information push device provided in an embodiment of this application includes:

15 a receiving module, configured to receive, in a live streaming process, a push information identifier sent by a live streaming terminal;

a determining module, configured to determine an access address of push information based on the push information identifier; and

20 a push module, configured to push the access address to a play terminal for presentation, for the play terminal to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

An information push device provided in an embodiment of this application includes:

a receiving module, configured to receive, in a live streaming process, an access address of push information sent by a live streaming platform server;

25 a presentation module, configured to present the received access address; and

a display module, configured to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

At least one of the foregoing technical solutions used in the embodiments of this application can achieve the following beneficial effects:

30 An access address of push information published by a live streaming terminal user is displayed on an interface of a play terminal, and the play terminal user can directly obtain the push information by clicking the access address, thereby improving convenience of obtaining the push information by the play terminal user.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings described herein are used to provide a further understanding of this application, and form a part of this application. Exemplary embodiments of this application and descriptions thereof are used to explain this application, and do not constitute any inappropriate limitation to this application. In the accompanying drawings:

FIG. 1 is a flowchart of an information push method according to an embodiment of this application;

FIG. 2 is a schematic diagram of image link presentation of push information according to an embodiment of this application;

FIG. 3 is a flowchart of another information push method according to an embodiment of this application;

FIG. 4 is a schematic diagram of an information push device according to an embodiment of this application;

FIG. 5 is a schematic diagram of an information push device according to an embodiment of this application;

FIG. 6 is a schematic diagram of an information push device according to an embodiment of this application;

FIG. 7 is a schematic diagram of an information push device according to an embodiment of this application;

FIG. 8 is a schematic diagram of an information push device according to an embodiment of this application; and

FIG. 9 is a schematic diagram of an information push device according to an embodiment of this application.

DETAILED DESCRIPTION OF THE INVENTION

To make the objectives, technical solutions, and advantages of this application clearer, the following clearly and completely describes the technical solutions of this application with reference to specific embodiments of this application and the corresponding accompanying drawings. Apparently, the described embodiments are only some embodiments rather than all the embodiments of this application. All other embodiments obtained by a person of ordinary skill in the art based on the embodiments of this application without creative efforts shall fall within the protection scope of this application.

The following describes the technical solutions provided in the embodiments of this application in detail with reference to the accompanying drawings.

FIG. 1 is a flowchart of an information push method according to an embodiment of this application. The method includes the following steps.

5 S101: In a live streaming process, a live streaming terminal receives a push information identifier input by a live streaming terminal user, and sends the push information identifier to a live streaming platform server.

10 An application scenario in this embodiment of this application is that in the network live streaming process, the live streaming terminal user initiates information push by using network live streaming software (referred to as live streaming terminal software below) installed on a live streaming terminal device, so that a play terminal user can directly obtain the push information.

15 For example, in this embodiment of this application, the live streaming terminal device may be a mobile phone, a tablet computer, or a personal computer. Any device on which the network live streaming software can be installed and that can implement network communications so that the live streaming terminal user initiates information push may be an implementation body of the method.

20 In this embodiment of this application, the push information may be a novel, news, an interesting image, a useful website, application, or product that the live streaming terminal user intends to push to the play terminal user, and the play terminal user may obtain the push information on the network based on the push of the live streaming terminal user. That is, any information that can be obtained by the play terminal user by using the network may be the push information of the method.

25 In this embodiment of this application, the push information identifier may be an access address of the push information or a label of the push information. The access address is an access address corresponding to a web page on which the push information is located. The access address may be a uniform resource locator (URL) address, or may be a hyperlink such as an image link or a text link. When the access address is the image link, image content may be a summary of the push information or a product view related to the push information.
30 When the access address is the text link, text content may be a summary, a theme, or the like of the push information. In short, the access address only needs to have an association with the web page on which the push information is located. This application does not limit a specific form of the access address.

In addition, the label of the push information is a label corresponding to an access address of preset push information. The preset push information may be stored in the live streaming platform server, the live streaming terminal, or a third party server.

In the application scenario of this application, that the live streaming terminal user pushes the information to the play terminal user usually includes two cases: first, the live streaming platform server (which may alternatively be the live streaming terminal or the third party server) has stored several push information identifiers (access addresses); and second, the access address of the push information needs to be provided by the live streaming terminal user.

In the foregoing first case, take the live streaming platform server storing the several push information identifiers as an example. The live streaming terminal software downloads, according to a received push information presentation instruction sent by the user, an access address list of the push information or a label list of the push information from the live streaming platform server and presents the access address list or the label list. The live streaming terminal user may directly select, from the list, an access address or label of the push information that the user intends to push, or may input key words in a search field provided by the live streaming terminal software, then select the access address or the label of to-be-pushed information from the search-result list, and use the selected access address or label as the push information identifier and then send the push information identifier to the live streaming platform server.

When the live streaming terminal user selects the label of the to-be-pushed information from the list, the live streaming terminal uses the selected label as the push information identifier and then sends the push information identifier to the live streaming platform server. After determining, based on the label, an access address of the corresponding push information, the live streaming platform server pushes the access address to a play terminal.

Further, when the label selected by the live streaming terminal user corresponds to more than one access address in the live streaming platform server, the live streaming platform server returns the determined access addresses to the live streaming terminal, and the live streaming terminal presents the access addresses for the live streaming terminal user to choose. Then the live streaming terminal uses an access address selected by the live streaming terminal user as a final push information identifier and then sends the final push information identifier to the live streaming platform server, and the live streaming platform server pushes the access address of the push information to the play terminal.

Certainly, in the foregoing first case, the access address of the preset push information may alternatively be stored locally (that is, the live streaming terminal) or in the third party server. In this case, the foregoing access address list or the label list is correspondingly loaded and presented by the live streaming terminal according to the push information presentation instruction sent by the live streaming terminal user, or is downloaded or presented by the live streaming terminal from the third party server according to the push information presentation instruction. However, the access address or label selected by the live streaming terminal user from the list still needs to be sent by the live streaming terminal to the live streaming platform server, to serve as the push information identifier.

Similarly, when the label selected by the live streaming terminal user corresponds to more than one access address locally or in the third party server, the play terminal further displays the access addresses corresponding to the label for selection or the third party server returns the access addresses based on the received label. Details are not described again.

In the foregoing second case, the live streaming terminal user may input an access address in an access address input area of the push information that is provided by the live streaming terminal software, the live streaming terminal uses the access address as the push information identifier and then sends the push information identifier to the live streaming platform server, and the live streaming platform server pushes the push information identifier to the play terminal.

S102: The live streaming platform server receives the push information identifier sent by the live streaming terminal, and determines, based on the push information identifier, an access address of push information.

In this embodiment of this application, as described in the step S101, the push information identifier may be the access address or the label of the push information. When the push information identifier is the access address of the push information, the live streaming platform server may directly determine the received access address as the access address of the to-be-pushed information. It should be noted that the access address received by the live streaming platform server may alternatively be the access address previously selected by the live streaming terminal user from the access addresses returned by the live streaming platform server based on the received label of the push information. When the push information identifier is the label of the push information, the live streaming platform server determines, based on the received label of the push information, an access address corresponding to the label.

S103: The live streaming platform server pushes the access address to a play terminal, and the play terminal presents the access address.

In this embodiment of this application, as described in the step S101, the access address may be a URL address, or may be an image link or a text link. The play terminal may present the access address on a play area of a direct interface of the play terminal, provided that a size of a presentation area does not affect the play terminal user watching the live streaming. For example, the access address may be made to statically cover a part of the play area, or the access address may be enabled to dynamically float in the play area. In short, any access address presentation manner that facilitates the play terminal user to trigger the access address falls within the protection scope claimed by this application.

To facilitate the play terminal user to trigger the access address, the presentation manner of the access address is required to be independent of a presentation manner of a video frame. For example, generally, the play terminal user can switch between a full screen mode and a window mode by triggering the play area. If the access address and the video frame are combined, the play terminal cannot determine whether a trigger action of the user is to switch between the full screen mode and the window mode or to view the push information. Therefore, in this embodiment of this application, the play terminal may establish, in a play area of a live streaming interface, a view layer independent of the play area, and present the access address in the view layer.

FIG. 2 is a schematic diagram of image link presentation of push information according to an embodiment of this application. As shown in FIG. 2, in an interface of the play terminal user, the image link is displayed on an independent view layer. Content of the image link is text "Novel "FLOWER"" and a view of a flower. This indicates that content of the push information is a novel named "FLOWER". In addition, a turn-off button is disposed on an upper right corner of the independent view layer. If the play terminal user is not interested in the push information, the play terminal user may manually turn off the push information.

S104: The play terminal displays, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

In this embodiment of this application, the play terminal user may trigger the access address in a manner of a mouse single clicking, mouse double clicking, mouse right clicking, finger clicking, shaking a device, or the like, provided that the play terminal detects that the play terminal user intends to obtain the push information.

In this embodiment of this application, a web page browsing function may be built in the network live streaming software of the play terminal, and the web page corresponding to the

access address is directly loaded to the play terminal, or the web page corresponding to the access address may be loaded by invoking a third party browser.

In addition, in the application scenario of this application, to collect statistics about promotion degrees of different anchors (that is, live streaming terminal users) for the push information, an access status of each piece of information pushed by each anchor needs to be recorded. The access record may indicate a total number of times that information, pushed by a certain anchor to the play terminal, is accessed by the play terminal users.

Therefore, in this embodiment of this application, when detecting that the access address is triggered by a play terminal user, the play terminal determines a live streaming terminal user identifier corresponding to the live streaming process, and sends, to the live streaming platform server, an access notification including the live streaming terminal user identifier and the access address of push information, for the live streaming platform server to record an association between the live streaming terminal user identifier and the access address of the push information based on the live streaming terminal user identifier and the access address of the push information that are included in the received access notification.

For example, if a live streaming terminal user pushes information to a play terminal user in a live streaming process, once a play terminal detects that an access address of the push information is triggered once, the play terminal notifies a live streaming platform server, and the live streaming platform server adds one association record of a live streaming terminal user identifier and the push information. FIG. 2 is used as an example. It is assumed that a record before triggering this time is "Nana-Novel "FLOWER"-12". "Nana" is the live streaming terminal user identifier, "Novel "FLOWER"" is the image link of the push information, and "12" is a total number of times of accessing, by play terminal users watching a live streaming of Nana, a web page on which the novel is located after "Novel "FLOWER"" is pushed by "Nana". After a play terminal detects that the image link related to "Novel "FLOWER"" is triggered again, the play terminal sends an access notification to a live streaming platform server, and the live streaming platform server further alters the record as "Nana-Novel "FLOWER"-13", to be specific, adds one association record.

Further, when a preset push information identifier is stored in the third party server, the live streaming platform server may further send, to the third party server, an association record stored in the live streaming platform server and a live streaming platform identifier of the live streaming platform server, so that the third party server may obtain an association record stored in a live streaming platform.

According to the method shown in FIG. 1, the access address of the push information published by the live streaming terminal user is displayed on the interface of the play terminal user, and the play terminal user can directly obtain the push information by clicking the access address, thereby improving convenience of obtaining the push information by the play terminal user.

In addition, in actual application, the method shown in FIG. 1 may further be used to push product information, as shown in FIG. 3.

FIG. 3 is a flowchart of another information push method according to an embodiment of this application. The method includes the following steps:

S301: A live streaming terminal receives, in a live streaming process, a product identifier input by a live streaming terminal user; and sends the product identifier to a live streaming platform server.

S302: The live streaming platform server receives the product identifier sent by the live streaming terminal, and determines a purchase address of a product based on the product identifier.

S303: The live streaming platform server pushes the purchase address to a play terminal, and the play terminal presents the purchase address.

S304: The play terminal displays, when detecting that the purchase address is triggered by a play terminal user, a web page corresponding to the purchase address.

A procedure of the method shown in FIG. 3 is similar to that of the method shown in FIG. 1. Details are not described herein again.

Further, in this embodiment of this application, when a preset product identifier is stored in a third party server, the third party server may be a server of a third party shopping platform. An association between user identifiers of a same user respectively on two platforms may be pre-established. The association may be that the user identifiers of the two platforms are based on a same mobile number, email address, or the like.

In this way, if the live streaming terminal user has purchased a product on the third party shopping platform, the third party server then keeps a purchase record. When the live streaming terminal user intends to push the product to the play terminal user, the live streaming terminal may download, from the third party server, a product identifier list of products purchased by the live streaming terminal user and present the product identifier list, for the live streaming terminal user to select a product identifier of the product to be pushed by the live streaming terminal user. The product identifier list may be a list of purchase addresses of products purchased by the live streaming terminal user, or may be a list of labels

of the products purchased by the live streaming terminal user. In addition, the live streaming terminal user may also input key words in a search box provided by live streaming terminal software, and select a purchase address or a label of the product from the resulted product identifier list.

5 In this embodiment of this application, the web page corresponding to the purchase address of the product may be a web page of product details, where the play terminal user can view parameter information and a price of the product, and may click to purchase if satisfied. Or the web page may be a payment interface of the product, where the play terminal user can directly pay online to make a purchase.

10 In this embodiment of this application, similar to the method show in FIG. 1, a live streaming platform service provider may also use the same method to record an access status of a web page of product details or a payment interface of each product pushed by each anchor. In addition, to more precisely analyze a promotion degree of each anchor for a product, the live streaming platform service provider may further collect statistics about a
15 total number of times the product prompted by each anchor to the play terminal users are finally purchased by play terminal users.

Therefore, a play terminal may detect whether a play terminal user purchases the product. If the play terminal detects that the play terminal user makes a payment by using the displayed web page, the play terminal sends, to a live streaming platform server, a payment
20 notification including a live streaming terminal user identifier and a purchase address of the product, for the live streaming platform server to record an association between the live streaming terminal user identifier and the purchase address of the product based on the live streaming terminal user identifier and the purchase address of the product that are included in the payment notification.

25 Take the example in S104 for instance. After the play terminal user purchases the Novel "FLOWER" pushed by the live streaming terminal user "Nana" and makes a payment, the play terminal notifies the live streaming platform server. The live streaming platform server adds one transaction association record of the live streaming terminal user identifier and the push information. For example, the record before this payment is "Nana-Novel
30 "FLOWER-deal 3"", where deal 3 is a number of times of successful historical transactions. When the live streaming platform server receives a payment notification, the record is changed as "Nana-Novel "FLOWER-deal 4"".

Further, when the preset product identifier is stored in the third party server, the live streaming platform server may further send, to the third party server, an association record

and a transaction association record that are stored in the live streaming platform server and a live streaming platform identifier of the live streaming platform server, so that the third party server may obtain an association record and an transaction association record that are stored in a live streaming platform.

5 FIG. 4 is a schematic diagram of an information push device according to an embodiment of this application. The device includes:

 a receiving module 401, configured to receive, in a live streaming process, a push information identifier input by a live streaming terminal user; and

 a sending module 402, configured to send the push information identifier to a live
10 streaming platform server, for the live streaming platform server to determine an access address of push information based on the push information identifier, and push the access address to a play terminal for presentation, for the play terminal displays, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

15 The push information identifier specifically includes a label of the push information.

 The sending module 402 sends the label of the push information to the live streaming platform server, for the live streaming platform server to determine, based on the label, an access address corresponding to the label.

 The push information identifier specifically includes the access address of the push
20 information.

 The receiving module 401 receives the access address of the push information that is input by the live streaming terminal user; or receives a label of the push information that is input by the live streaming terminal user, sends the label to the live streaming platform server, receives and presents access addresses that are returned by the live streaming platform
25 server and that correspond to the label, and determines, as the push information identifier input by the live streaming terminal user, an access address selected by the user from the presented access addresses.

 The receiving module 401 receives a push information presentation instruction sent by the live streaming terminal user; obtains and presents, according to the push information
30 presentation instruction, push information identifiers locally pre-stored, stored in the live streaming platform server, or stored in a third party server; and determines a push information identifier selected by the live streaming terminal user from the presented push information identifiers.

FIG. 5 is a schematic diagram of an information push device according to an embodiment of this application. The device includes:

a receiving module 501, configured to receive, in a live streaming process, a push information identifier sent by a live streaming terminal;

5 a determining module 502, configured to determine an access address of push information based on the push information identifier; and

a push module 503, configured to push the access address to a play terminal for presentation, for the play terminal to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

10 The push information identifier specifically includes a label of the push information.

The determining module 502 determines, based on the received label of the push information and a preset correspondence between labels and access addresses, an access address corresponding to the received label.

The push information identifier specifically includes the access address of the push information.

15 The device further includes: a selection module 504, configured to: before the receiving module 501 receives the push information identifier sent by the live streaming terminal, receive a label of the push information that is sent by the live streaming terminal; and return access addresses corresponding to the label to the live streaming terminal for presentation.

20 The receiving module 501 receives, as the received push information identifier, an access address that is sent by the live streaming terminal and that is selected by a live streaming terminal user from the presented access addresses.

The device further includes: an access recording module 505, configured to: when receiving an access notification sent by the play terminal, based on a live streaming terminal user identifier and an access address of the push information that are included in the access notification, record an association between the live streaming terminal user identifier and the access address of the push information, where the access notification is sent when the play terminal detects that the access address is triggered by the play terminal user.

FIG. 6 is a schematic diagram of an information push device according to an embodiment of this application. The device includes:

30 a receiving module 601, configured to receive, in a live streaming process, an access address of push information sent by a live streaming platform server;

a presentation module 602, configured to present the received access address; and

a display module 603, configured to display, when detecting that the access address is triggered by a play terminal user, a web page corresponding to the access address.

The presentation module 602 establishes, in a play area of a live streaming interface, a view layer independent of the play area, and presents the received access address in the view layer.

The device further includes an access notification module 604, configured to: when it is detected that the access address is triggered by the play terminal user, determine a live streaming terminal user identifier corresponding to the live streaming process, and send, to the live streaming platform server, an access notification including the live streaming terminal user identifier and the access address of the push information, for the live streaming platform server to record an association between the live streaming terminal user identifier and the access address of the push information.

FIG. 7 is a schematic diagram of an information push device according to an embodiment of this application. The device includes:

a receiving module 701, configured to receive, in a live streaming process, a product identifier input by a live streaming terminal user; and

a sending module 702, configured to send the product identifier to a live streaming platform server, for the live streaming platform server to determine a purchase address of a product based on the product identifier, and push the purchase address to a play terminal for presentation, for the play terminal to display, when detecting that the purchase address is triggered by a play terminal user, a web page corresponding to the purchase address.

The product identifier specifically includes a label of the product.

The sending module 702 sends the label of the product to the live streaming platform server, for the live streaming platform server to determine, based on the label, a purchase address corresponding to the label.

The product identifier specifically includes the purchase address of the product.

The receiving module 701 receives the purchase address of the product that is input by the live streaming terminal user; or receives a label of the product that is input by the live streaming terminal user, sends the label to the live streaming platform server, receives and presents purchase addresses that are returned by the live streaming platform server and that correspond to the label, and determines, as the product identifier input by the live streaming terminal user, a purchase address selected by the user from the presented access addresses.

The receiving module 701 receives a product presentation instruction sent by the live streaming terminal user, obtains and presents, according to the product presentation

instruction, product identifiers locally pre-stored, stored in the live streaming platform server, or stored in a third party server, and determines a product identifier selected by the live streaming terminal user from the presented product identifiers.

FIG. 8 is a schematic diagram of an information push device according to an embodiment of this application. The device includes:

a receiving module 801, configured to receive, in a live streaming process, a product identifier sent by a live streaming terminal;

a determining module 802, configured to determine a purchase address of a product based on the product identifier; and

a push module 803, configured to push the purchase address to a play terminal for presentation, for the play terminal to display, when detecting that the purchase address is triggered by a play terminal user, a web page corresponding to the purchase address.

The product identifier specifically includes a label of the product.

The determining module 802 determines, based on the received label of the product and a preset correspondence between labels and access addresses, a purchase address corresponding to the received label.

The product identifier specifically includes the purchase address of the product.

The device further includes a selection module 804, configured to: before the receiving module 801 receives the product identifier sent by the live streaming terminal, receive a label of the product that is sent by the live streaming terminal; and return purchase addresses corresponding to the label to the live streaming terminal for presentation.

The receiving module 801 receives, as the received product identifier, a purchase address that is sent by the live streaming terminal and that is selected by a live streaming terminal user from the presented purchase addresses.

The device further includes an access recording module 805, configured to: when receiving an access notification sent by the play terminal, based on a live streaming terminal user identifier and a purchase address of the product that are included in the access notification, record an association between on the live streaming terminal user identifier and the purchase address of the product, where the access notification is sent when the play terminal detects that the purchase address is triggered by the play terminal user.

The device further includes a transaction recording module 806, configured to: when receiving a payment notification sent by the play terminal, based on a live streaming terminal user identifier and a purchase address of the product that are included in the payment notification, record a transaction association between the live streaming terminal user

identifier and the purchase address of the product, where the payment notification is sent after the play terminal detects that the play terminal user makes a payment.

FIG. 9 is a schematic diagram of an information push device according to an embodiment of this application. The device includes:

5 a receiving module 901, configured to receive, in a live streaming process, a purchase address of a product that is sent by a live streaming platform server;

a presentation module 902, configured to present the received purchase address; and

a display module 903, configured to display, when detecting that the purchase address is triggered by a play terminal user, a web page corresponding to the purchase address.

10 The presentation module 902 establishes, in a play area of a live streaming interface, a view layer independent of the play area, and presents the received purchase address in the view layer.

The device further includes: an access notification module 904, configured to: when it is detected that the purchase address is triggered by the play terminal user, determine a live streaming terminal user identifier corresponding to the live streaming process, and send, to the live streaming platform server, an access notification including the live streaming terminal user identifier and the purchase address of the product, for the live streaming platform server to record an association between the live streaming terminal user identifier and the purchase address of the product.

20 The web page corresponding to the purchase address specifically includes an interface of the recommended product details or a payment web page of the recommended product.

The device further includes a payment notification module 905, configured to: after the display module displays the web page corresponding to the purchase address and after it is determined that the play terminal user makes a payment, send, to the live streaming platform server, a payment notification including a live streaming terminal user identifier and the purchase address of the product, for the live streaming platform server to record an association between the live streaming terminal user identifier and the purchase address of the product.

30 A person skilled in the art should understand that the embodiments of the present invention may be provided as a method, a system, or a computer program product. Therefore, the present invention may use a form of total hardware embodiments, total software embodiments, or embodiments combining software and hardware. In addition, the present invention may use a form of a computer program product that is implemented on one or more computer-usable storage media (including but not limited to a disk memory, a compact disc

read-only memory (CD-ROM), an optical memory, and the like) that include computer-usable program code.

The present invention is described with reference to the flowcharts and/or block diagrams of the method, the device (system), and the computer program product according to the embodiments of the present invention. It should be understood that computer program instructions may be used for implementing each process and/or each block in the flowcharts and/or the block diagrams and a combination of a process and/or a block in the flowcharts and/or the block diagrams. These computer program instructions may be provided for a general-purpose computer, a dedicated computer, an embedded processor, or a processor of any other programmable data processing device to generate a machine, so that the instructions executed by a computer or a processor of any other programmable data processing device generate an apparatus for implementing a specific function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

These computer program instructions may further be stored in a computer readable memory that can instruct the computer or any other programmable data processing device to work in a specific manner, so that the instructions stored in the computer readable memory generate an artifact that includes an instruction apparatus. The instruction apparatus implements a specified function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

These computer program instructions may further be loaded onto a computer or another programmable data processing device, so that a series of operations and steps are performed on the computer or the another programmable device, thereby generating computer-implemented processing. Therefore, the instructions executed on the computer or the another programmable device provide steps for implementing a specific function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

In typical configuration, a computing device includes one or more processors (CPU), an input/output interface, a network interface, and a memory.

The memory may include a form such as a volatile memory, a random access memory (RAM), and/or a non-volatile memory in a computer readable medium, for example, a read-only memory (ROM) or a flash memory (flash RAM). The memory is an example of the computer readable medium.

The computer readable medium includes non-volatile and volatile media, and removable and non-removable media implemented by using any method or technology used for storing information. The information may be a computer readable instruction, a data structure, a

program module or other data. An example of a computer storage medium includes, but is not limited to, a phase-change memory (PRAM), a static random access memory (SRAM), a dynamic random access memory (DRAM), another type of RAM, a ROM, an electrically erasable programmable read-only memory (EEPROM), a flash memory or another memory technology, a CD-ROM, a digital versatile disc (DVD) or another optical memory, a cassette, a magnetic tape, a magnetic disk memory or another magnetic storage device, or any other non-transmission medium, and may be used to store information accessible by the computing device. According to the definition in the specification, the computer readable medium does not include transitory computer readable media (transitory media) such as a modulated data signal and a carrier.

It should be further noted that the terms "include", "comprise", or any other variation thereof is intended to cover a non-exclusive inclusion. Therefore, a process, method, product, or device that includes a series of elements not only includes such elements, but also includes other elements not specified expressly, or may include inherent elements of the process, method, product, or device. Without further limitation, the element defined by a phrase "include one..." does not exclude other same elements in the process, method, product, or device that include the element.

A person skilled in the art should understand that the embodiments of this application may be provided as a method, a system, or a computer program product. Therefore, this application may use a form of total hardware embodiments, total software embodiments, or embodiments combining software and hardware. In addition, this application may use a form of a computer program product that is implemented on one or more computer-usable storage media (including but not limited to a disk memory, a CD-ROM, an optical memory, and the like) that include computer-usable program code.

The foregoing descriptions are merely embodiments of this application, and are not intended to limit this application. For a person skilled in the art, this application may have various modifications and changes. Any modification, equivalent replacement, improvement, or the like made within the spirit and principle of this application shall fall within the scope of the claims of this application.

CLAIMS

1. An information pushing method, comprising:

receiving, by a live streaming server in a live streaming process, a push information presentation instruction from a live streaming terminal;

determining, by the live streaming server, one or more access addresses of push information based on the push information presentation instruction;

sending, by the live streaming server, the one or more access addresses of push information to the live streaming terminal for selection;

receiving, by the live streaming server, a push information identifier from the live streaming terminal, the push information identifier comprising a selected access address from the one or more access addresses of push information;

determining, by the live streaming server, the selected access address based on the push information identifier; and

sending, by the live streaming server, the selected access address to a play terminal for the play terminal to present the push information with the selected access address in a view layer independent of a play area of a live streaming interface, wherein the view layer includes a turn-off button configured to turn off the push information, and when detecting that the selected access address is triggered by a play terminal user, the play terminal displays a web page corresponding to the selected access address.

2. The method according to claim 1, wherein determining the selected access address of push information based on the push information identifier comprises:

determining the selected access address based on a preset correspondence between the push information identifier and the selected access address.

3. The method according to claim 1, before the receiving a push information identifier from the live streaming terminal, the method further comprises:

receiving a label of the push information from the live streaming terminal; and

returning one or more access addresses corresponding to the label to the live streaming terminal for selection.

4. The method according to claim 1, wherein the method further comprises:

when the selected access address is triggered, recording an association between a live streaming terminal user identifier and the selected access address, wherein the live streaming terminal user identifier is for identifying a live streaming terminal user.

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5. The method according to claim 1, wherein the push information identifier includes a product identifier, and the selected access address includes a purchase address of the product.

6. The method according to claim 5, further comprises:

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receiving, from the play terminal, a payment notification including a live streaming terminal user identifier and the purchase address, wherein the payment notification is received after a payment on the product; and

recording an association between the live streaming terminal user identifier and the purchase address.

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7. An information push method, comprising:

receiving, by a live streaming terminal in a live streaming process, a push information presentation instruction input by a live streaming terminal user;

20 sending, by the live streaming terminal, the push information presentation instruction to a live streaming server to determine one or more access addresses of push information based on the push information presentation instruction;

receiving and presenting, by the live streaming terminal, the one or more access addresses of push information to the live streaming terminal user for selection;

25 receiving, by the live streaming terminal, a push information identifier input by the live streaming terminal user and comprising a selected access address; and

30 sending, by the live streaming terminal, the push information identifier to the live streaming server to determine the selected access address of push information based on the push information identifier and send the selected access address to a play terminal for presenting the push information with the selected access address in a view layer independent of a play area of a live streaming interface, wherein the view layer includes a turn-off button configured to turn off the push information, and when detecting that the selected access address is triggered by a play

terminal user, the play terminal displays a web page corresponding to the selected access address.

8. The method according to claim 7, wherein

5 the method further comprises:

receiving a label of the push information; and

sending the label to the live streaming server; and

the receiving and presenting, by the live streaming terminal, the one or more access addresses of push information to the live streaming terminal user for selection, comprises:

10 receiving and presenting one or more access addresses corresponding to the label from the live streaming server.

9. The method according to claim 7, wherein receiving the push information identifier comprises:

15 obtaining, according to the push information presentation instruction, one or more pre-stored push information identifiers stored in the live streaming server; and

determining a push information identifier selected by the live streaming terminal user from the one or more push information identifiers as the push information identifier.

20 10. The method according to claim 7, wherein the push information identifier includes a product identifier, and the selected access address includes a purchase address of the product.

11. An information push method, comprising:

25 receiving, by a play terminal in a live streaming process, a selected access address of push information from a live streaming server, comprising:

receiving, by the live streaming server in the live streaming process, a push information presentation instruction from a live streaming terminal;

determining, by the live streaming server, one or more access addresses of push information based on the push information presentation instruction;

sending, by the live streaming server, the one or more access addresses of push information to the live streaming terminal for selection;

receiving, by the live streaming server, a push information identifier from the live streaming terminal, the push information identifier comprising a selected access address from the one or more access addresses of push information; and

determining, by the live streaming server, the selected access address based on the push information identifier;

presenting, by the play terminal, the push information and the received selected access address in a view layer independent of a play area of a live streaming interface, wherein the view layer includes a turn-off button configured to turn off the push information; and

accessing a web page corresponding to the push information, when the play terminal detects that the selected access address is triggered.

12. The method according to claim 11, wherein when the selected access address is triggered, the method further comprises:

determining a live streaming terminal user identifier corresponding to the live streaming process; and

sending, to the live streaming server, an access notification including the live streaming terminal user identifier and the selected access address for the live streaming server to record an association between the live streaming terminal user identifier and the selected access address.

13. The method according to claim 11, wherein the selected access address includes a purchase address of a product.

14. The method according to claim 13, wherein the web page includes an interface of the product or a payment page of the product.

15. The method according to claim 13, further comprises:

determining that a payment is made on the web page; and

sending, to the live streaming server, a payment notification including the live streaming terminal user identifier and the purchase address for the live streaming server to record a

transaction association between the live streaming terminal user identifier and the purchase address.