

INFORMATION DISPLAY METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND PRODUCT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to Chinese Patent Application No. 202411515786.0, filed on October 28, 2024, which is incorporated herein by reference in its entirety as a part of the present application.

TECHNICAL FIELD

[0002] The present disclosure relates to an information presentation method, an apparatus, a device, a storage medium and a product.

BACKGROUND

[0003] With the rapid development of information technology and the popularization of mobile internet, users may obtain various resources through various internet-related functions. For example, various items, services, virtual resources and the like may be obtained through an online shopping function, which provides great convenience for various aspects of users' life and work.

[0004] At present, resource providers, such as merchants or brand owners, may introduce the provided resources to users through livestream, and users may make online payments during the livestream and obtain resources through the delivery service provided by the resource providers. However, the presentation scheme of livestream-related information on the user side still has deficiencies and needs to be improved.

SUMMARY

[0005] Embodiments of the present disclosure provide an information presentation method, an apparatus, a device, a storage medium and a product.

[0006] In a first aspect, an embodiment of the present disclosure provides an information presentation method, including:

[0007] presenting a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page;

- [0008] presenting, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.
- [0009] In a second aspect, an embodiment of the present disclosure further provides an information presentation apparatus, including:
- [0010] a preset page presenting module, configured to present a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page;
- [0011] a subject information presenting module, configured to present, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.
- [0012] In a third aspect, an embodiment of the present disclosure further provides an electronic device, the electronic device includes:
- [0013] one or more processors;
- [0014] a storage apparatus, configured to store one or more programs,
- [0015] when the one or more programs are executed by the one or more processors, the one or more processors are caused to implement the information presentation method provided by the embodiment of the present disclosure.
- [0016] In a fourth aspect, an embodiment of the present disclosure further provides a storage medium including computer-executable instructions, when the computer-executable instructions are executed by a computer processor, the information presentation method provided by the embodiment of the present disclosure is implemented.
- [0017] In a fifth aspect, an embodiment of the present disclosure further provides a computer program product, including a computer program, when the computer program is executed by a processor, the information presentation method provided by the embodiment of the present disclosure is implemented.

BRIEF DESCRIPTION OF DRAWINGS

- [0018] The above and other features, advantages and aspects of various 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.

- [0019] Fig. 1 is a schematic flowchart of an information presentation method provided by an embodiment of the present disclosure;
- [0020] Fig. 2 is a schematic diagram of interface interaction provided by an embodiment of the present disclosure;
- [0021] Fig. 3 is a schematic flowchart of another information presentation method provided by an embodiment of the present disclosure;
- [0022] Fig. 4 is a schematic diagram of another interface interaction provided by an embodiment of the present disclosure;
- [0023] Fig. 5 is a schematic structural diagram of an information presentation apparatus provided by an embodiment of the present disclosure; and
- [0024] Fig. 6 is a schematic structural diagram of an electronic device provided by an embodiment of the present disclosure.

DETAILED DESCRIPTION

- [0025] 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 interpreted as limited to the embodiments set forth herein. On the contrary, 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 used for illustrative purposes, and are not used to limit the protection scope of the present disclosure.
- [0026] It should be understood that the various steps described in the method implementations of the present disclosure may be executed in different orders, and/or executed in parallel. In addition, the method implementations may include additional steps and/or omit the execution of the steps shown. The scope of the present disclosure is not limited in this regard.
- [0027] As used herein, the term "include/comprise" and its variations are open-ended inclusions, that is, "include/comprise but not limited to". The term "based on" is "at least partially based 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.
- [0028] 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.

- [0029] It should be noted that the modifications of "one" and "multiple" mentioned in the present disclosure are illustrative rather than restrictive, and those skilled in the art should understand that unless otherwise clearly indicated in the context, they should be understood as "one or more".
- [0030] The names of messages or information exchanged between multiple apparatuses in the implementations of the present disclosure are only used for illustrative purposes, and are not used to limit the scope of these messages or information.
- [0031] It may be understood that before using the technical solutions disclosed in various embodiments of the present disclosure, the user should be informed of the type, range of use, use scenarios, etc. of personal information involved in the present disclosure in an appropriate manner in accordance with relevant laws and regulations, and the authorization of the user should be obtained.
- [0032] For example, in response to receiving an active request from a user, prompt information is sent to the user to clearly prompt the user that the requested operation will require access to and use of the user's personal information. In this way, the user may independently choose whether to provide personal information to software or hardware, such as an electronic device, an application, a server or a storage medium, that performs the operations of the technical solutions of the present disclosure, based on the prompt information.
- [0033] As an optional but non-limiting implementation, in response to receiving an active request from a user, the manner of sending prompt information to the user may be, for example, a pop-up window, in which the prompt information may be presented in text. In addition, the pop-up window may also carry a selection control for the user to choose whether to "agree" or "disagree" to provide personal information to the electronic device.
- [0034] It may be understood that the above process of notifying and obtaining user authorization is only illustrative, and does not constitute a limitation on the implementations of the present disclosure. Other manners that satisfy relevant laws and regulations may also be applied to the implementations of the present disclosure.
- [0035] It may be understood that the data involved in the technical solution (including but not limited to the data itself, acquisition or use of the data) should comply with requirements of corresponding laws, regulations and related provisions.
- [0036] Fig. 1 is a schematic flowchart of an information presentation method provided by an embodiment of the present disclosure. The embodiment of the present disclosure is applicable to the case of presenting page information of livestream in which there are multiple preset account subjects that may provide object delivery services. The method may be performed by an information presentation apparatus, which may be implemented in the form of software and/or hardware, optionally, implemented by an electronic device. The electronic device may be a mobile terminal, such as a mobile phone, a smart watch, a tablet computer or a personal digital assistant, and may also be a device, such as a personal computer (PC) terminal.

[0037] As shown in Fig. 1, the information presentation method includes:

[0038] Step 101: presenting a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page.

[0039] Exemplarily, the page in the embodiment of the present disclosure may be an application page or a web page corresponding to a preset client, which is not specifically limited. The preset client is a client running on an electronic device, which may be a preset application or a web client.

[0040] In the embodiment of the present disclosure, the preset account subject may be a subject to which a livestream account to which the livestream belongs, and the preset account subject may provide a preset object. The preset object may include resources, such as products, items or services, and the preset account subject may be a resource provider, such as a merchant or a brand owner, specifically, a chain supermarket or a coffee brand owner. After the livestream account of the preset account subject starts to livestream, a livestream server may push the livestream to the preset client used by the user watching the livestream. The livestream page in the preset client may present a livestream picture corresponding to the livestream, and the livestream preview page may present a livestream preview picture corresponding to the livestream, then the user may watch the content of the livestream through the page in the preset client, for example, view the livestream picture through the livestream page, or view the livestream preview picture through the livestream preview page. The preset page includes the livestream page and/or the livestream preview page.

[0041] Exemplarily, during the livestream of the livestream account of the preset account subject, the preset object provided by the preset account subject may be explained, that is, the livestream may include a livestream picture in which a streamer explains the preset object, and the preset object set associated with the livestream may include the preset object involved in the livestream, for example, may include one or more preset objects that have been explained, are being explained and to be explained. Exemplarily, the preset object set may be presented in an object information presentation page of the livestream in the form of an object information set. For example, a preset control, which for example, may be a shopping cart icon, is presented in the livestream page, and in response to a trigger operation on the preset control, the object information presentation page is presented, the object information set is presented in the object information presentation page, and the object information set includes object information of the preset object in the preset object set. For example, the object information may include object attribute information and/or image resource information of the preset object, and may also include other information related to the preset object. The object attribute information may include, for example, an object identification (such as a product name), an object category label (such as fresh vegetables or seasonal fruits), an object acquisition cost (such as a product price), an object inventory (such as whether there is stock or a remaining quantity), an object feature (such as a selling point of the product), a brand, a model, a material or an ingredient. The image resource information may include information on resources,

such as an image and/or a video, associated with the preset object, such as a schematic diagram of the product (specifically, a product photo) or a product explanation video (specifically, a livestream replay video of the product). The specific presentation manner of each piece of object information in the object information set is not limited, and it may be presented in the form of a list or a matrix, for example, a product list.

[0042] Step 102: presenting, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.

[0043] Exemplarily, the preset account subject corresponds to one or more subjects that may independently provide the delivery service of the preset object, which are recorded as preset subjects, and the multiple preset subjects may form the preset subject set corresponding to the preset account subject. The preset subject, for example, may be a store of the merchant, specifically a specific physical supermarket store in the chain supermarket. The preset subject may deliver the preset object to a place designated by the user (which may be recorded as a target delivery address) through the delivery service. The delivery service may have a preset timeliness requirement, for example, may be an immediate delivery service. The immediate delivery service may be understood as a service of delivering the preset object to the user within a short time (such as 1 hour or half a day) in response to a service request of the user. It should be noted that the above short time may include immediate delivery, and may also include delivery within an appointment time. Since the immediate delivery service has a high requirement for delivery timeliness, it is generally necessary to select a preset subject (recorded as the target preset subject) matching the current user from the preset subject set to provide the delivery service for the current user, that is, the target preset subject may be specifically configured to provide the delivery service of the preset object in the preset object set for the current user. The target preset subject may be determined by the livestream server in a preset manner and recommended to the user, and the user may choose to accept the recommendation or switch the target preset subject. For example, the preset manner is not specifically limited, and for example, it may be determined based on at least one of the following: a distance between a location of the preset client used by the current user and a location of each preset subject, a distance between the target delivery address set by the current user and the location of each preset subject, and service data of the preset subject. The service data may include, for example, at least one of the following: an object inventory of the preset object to be delivered, a sales volume of the preset object to be delivered, an evaluation grade of the preset subject, and a delivery cost (such as delivery duration, delivery fee or delivery capacity).

[0044] In related art, relevant information of a store that specifically delivers products is usually presented on pages such as a product list page or an order page, therefore, when viewing the livestream page and the livestream preview page, the user cannot know in advance which store specifically fulfills

the order and delivers the products, and needs to manually enter the product list page or the order page. The operation path of viewing the store information is long, and the page interaction efficiency is low. If the user is not clear how to view the store information, the user cannot know the store information without entering the product list page or the order page, and may need to try various operations to obtain the store information, which is inefficient.

[0045] In the embodiment of the present disclosure, the subject information of the target preset subject is presented in the livestream page and/or the livestream preview page, where the subject information may include point of interest (POI) information, and may also include delivery information (such as a delivery distance or an estimated delivery duration), etc. The POI information may include, for example, at least one of a subject identification (such as a store name) and geographical location information (such as a store address). In this way, when watching the content of the livestream through the preset page, the user may conveniently and intuitively view the relevant information of the entity that may provide the delivery service for the user, which reduces operations, improves the page interaction efficiency, and the user may know in advance where to view the products offline or perform after-sales, and the efficiency of obtaining the preset object may also be improved.

[0046] Optionally, if the subject information of the target preset subject is presented in both the livestream page and the livestream preview page, the types of the presented subject information may be different, which may be recorded as first-type subject information and second-type subject information, respectively. For example, the first-type subject information is the subject identification, and the second-type subject information is the geographical location information.

[0047] According to the information presentation method provided by the embodiment of the present disclosure, the preset page of the livestream associated with the preset object set of the preset account subject is presented, the preset page includes the livestream page and/or the livestream preview page, the subject information of the target preset subject is presented in the preset page, the target preset subject is one preset subject in the preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide the delivery service of the preset object in the preset object set. By adopting the above technical solution, when presenting the livestream page and/or the livestream preview page of the livestream of the preset account subject, the subject information of the target preset subject, which provides the delivery service of the preset object, in the preset subject set corresponding to the preset account subject is presented, which makes the presentation of the subject information more intuitive, reduces the operation path for viewing the subject information, improves the convenience for the user watching the livestream to view the subject information, and improves the user experience.

[0048] In some embodiments, the preset page includes a livestream page; for example, presenting, in the preset page, the subject information of the target preset subject includes: presenting a preset component in the livestream page; presenting, in the preset component, the subject information of the target preset subject. In this way, the subject information of the target preset subject may be presented by means of the

component, which makes the presentation of the subject information more prominent, and improves the positioning efficiency and viewing efficiency of the subject information.

[0049] Exemplarily, the preset component may be a resident component in the livestream page or a component with presentation timeliness, and a presentation style of the preset component is not limited. If it is a resident component, it may be presented in an associated position of an account identification of the preset account subject, for example, fixedly presented in an adjacent position of an account avatar and/or an account name. If it is a component with presentation timeliness, it may be presented in a specified position in the livestream page, such as an upper right corner position or a right edge position of the page, and may stop presenting after presenting for a specified duration or in response to a presentation closing operation of the user.

[0050] In some embodiments, the preset component is included in a livestream message set of the livestream page. In this way, the preset component may be a component in the form of a message, and is included in the livestream message set as a livestream message, which may further improve the positioning efficiency and viewing efficiency of the subject information.

[0051] Exemplarily, the livestream message may include an interactive message related to the livestream, such as a comment message or an order message. The comment message may include a comment message posted by an audience user, and may also include a comment message posted by a livestream user. In the livestream page, the livestream messages are generally presented in a streaming manner according to the posting time or generation time of the livestream messages. The set of livestream messages presented in the livestream page is recorded as a livestream message set. The preset component may specifically be a livestream message automatically posted by the livestream account of the preset account subject as a publisher.

[0052] In some embodiments, presenting the livestream page of the livestream of the preset account subject includes: presenting the livestream page of the preset account subject in response to a trigger operation on an entrance to the livestream page of the preset account subject; for example, presenting the preset component in the livestream page includes: presenting a livestream message set in a preset area of the livestream page; presenting the preset component as a new livestream message in the livestream message set. In this way, after the user enters the livestream page by triggering the entrance to the livestream page, the user may quickly view the preset component in the livestream message set presented in the preset area, to obtain the subject information of the target preset subject more timely and conveniently, and watch the content of the livestream knowing the subject information, which improves the efficiency of obtaining the content of the livestream.

[0053] Exemplarily, the entrance to the livestream page may be presented in the livestream preview page, an information search result presentation page, or a media content presentation page (such as a page for presenting a stream of media works posted by different users pushed to the current user). The presentation form of the entrance is not limited, and specifically, it may be a preview picture of the

livestream, a text prompt control for entering the livestream, or a subject identification (such as an avatar) of the preset account subject. The trigger operation on the entrance may be, for example, a click operation. The preset area may be an area in the livestream page for presenting livestream messages, such as a lower left corner area of the page. Exemplarily, a new livestream message may appear and be presented from the bottom of the preset area.

[0054] Fig. 2 is a schematic diagram of interface interaction provided by an embodiment of the present disclosure. As shown in Fig. 2, in response to a trigger operation on an entrance 201 to a livestream page of a preset account subject (a subject of an XX supermarket hour-reach livestream account), the livestream page 202 of the preset account subject is presented, a livestream message set (not all livestream messages are shown in the figure) is presented in a preset area 203 in the livestream page 202, a preset component 204 is presented as a new livestream message in the livestream message set, for example, presented at the bottom of the preset area 203, subject information of a target preset subject is presented in the preset component 204, the subject information may include, for example, a store address "No. x, x Road, x District, x City" in the figure, and information such as a positioning icon and an "offline store" text may also be presented in the preset component 204.

[0055] In some embodiments, after presenting the preset component as the new livestream message in the livestream message set, the information presentation method further includes: in response to a new livestream message being added to the livestream message set, moving the preset component in the preset area in a preset direction for presentation; in response to the preset component being moved to a target position in the preset area, keeping presenting the preset component at the target position for at least a preset duration. In this way, as a livestream message, the presentation logic of the preset component may be similar to that of other livestream messages, and the preset component may be moved for presentation after a new livestream message appears, but after being moved to the target position, the preset component may be presented for at least the preset duration, to avoid too many new livestream messages appearing in a short time, resulting in too short presentation duration of the preset component, which makes it difficult for the user to accurately obtain the subject information, or the user needs to manually slide the livestream messages to view the subject information, which improves the accuracy and convenience of obtaining the subject information.

[0056] Exemplarily, after the preset component is presented, if there is no new livestream message, the preset component may remain statically presented, and if a new livestream message is added, the preset component may be moved in the preset direction (for example, the direction in which the preset component points to the top of the preset area) for presentation until it is moved to the target position. The target position may be set according to actual needs, for example, it may be the center position or the top position of the preset area. The preset component is kept presented at the target position for at least the preset duration, and the preset duration may be set according to actual needs, such as 5 seconds. Exemplarily, if the preset component is moved to the target position in the preset area, the duration of

keeping presenting does not reach the preset duration, that is, timing starts when the preset component is moved to the target position, and the cumulative duration of keeping presenting is less than the preset duration, if a new livestream message is added to the livestream message set and the preset area has been filled with livestream messages, the preset component is continued to be presented at the target position, and the oldest livestream message in the preset area is moved out of the preset area.

[0057] Exemplarily, as shown in Fig. 2, after the preset component 204 is presented as the new livestream message in the livestream message set, a livestream message posted by user A and a livestream message posted by user B are added in sequence, then the preset component 204 is moved upward until the target position 205 (such as the top of the preset area 203). At this time, the preset area 203 has been filled with livestream messages. If the duration of the preset component 204 keeping presented at the target position 205 is less than 5 seconds (preset duration), and a new livestream message posted by user C is added, the preset component 204 is kept presented at the target position 205, the livestream message posted by user A is moved out of the preset area 203, and the livestream message posted by user C is presented.

[0058] In some embodiments, after keeping presenting the preset component at the target position for the preset duration, the information presentation method further includes: in response to a new livestream message being added to the livestream message set, continuing to move the preset component in the preset direction from the target position. In this way, the presentation of the preset component may be controlled more flexibly, and the utilization rate of the presentation space of the preset area may be improved.

[0059] As in the above example, it is assumed that when the livestream message posted by user C is added, the preset component has been presented at the target position for more than 5 seconds, then the preset component may continue to be moved upward from the target position, for example, moved out of the preset area, to realize presenting, in the preset area, the livestream message posted by user A, the livestream message posted by user B and the livestream message posted by user C in sequence from top to bottom.

[0060] In some embodiments, the information presentation method further includes: presenting, in the preset component, copywriting information of the livestream, for example, content of the copywriting information is preset by a streamer corresponding to the preset account subject. In this way, the copywriting information of the livestream and the subject information of the target preset subject are presented simultaneously in the preset component, which realizes component reuse, reduces component development cost, and improves the efficiency of user information acquisition.

[0061] Exemplarily, the copywriting information of the livestream may specifically be information in the form of copywriting used to introduce or describe the content of the livestream. Before the livestream starts, it may be set by the streamer corresponding to the preset account subject, so that the audience user may more conveniently know the relevant information, such as the characteristics, of the content of the livestream. Optionally, the relative presentation positions of the copywriting information and the subject

information in the preset component are not limited, for example, the subject information is presented below the copywriting information.

[0062] In some embodiments, after presenting, in the preset component, the subject information of the target preset subject, the information presentation method further includes: presenting a target page in response to a trigger operation on the preset component, for example, the target page is located on an upper layer of the livestream page, and a size of the target page is smaller than a size of the livestream page; presenting, in the target page, associated information of the preset account subject. In this way, the relevant information of the preset account subject may be conveniently viewed by triggering the preset component, which improves the interaction efficiency.

[0063] Exemplarily, the associated information of the preset account subject may include, for example, an account identification of the preset account subject, a number of followers, an account level, a number of fans, an account description, an interaction control, etc. The interaction control may include, for example, a follow control.

[0064] In some embodiments, the preset page includes a livestream preview page; for example, presenting, in the preset page, the subject information of the target preset subject includes: presenting, in a preset position in the livestream preview page, the subject information of the target preset subject, for example, the preset position is associated with an account identification presentation position of the preset account subject. In this way, the subject information of the target preset subject may be quickly viewed in advance before entering the livestream page, which improves the information acquisition efficiency and the efficiency of entering the livestream page.

[0065] Optionally, the account identification of the preset account subject may be presented in the livestream preview page, and the preset position may be an adjacent position (such as below or on the right) of the account identification presentation position of the preset account subject. Optionally, the preset position may also be the account identification presentation position, that is, the account identification of the preset account subject originally presented is replaced with the subject information of the target preset subject. For example, before the solution of the embodiment of the present disclosure is applied, the account identification (specifically, a livestream account name) of the livestream account is presented at the bottom of the livestream preview page, and after the solution of the embodiment of the present disclosure is applied, the subject information (specifically, a subject name of the target preset subject, such as an XX supermarket x road store) of the target preset subject is presented at the bottom of the livestream preview page of the livestream of the preset account subject.

[0066] Fig. 3 is a schematic flowchart of another information presentation method provided by an embodiment of the present disclosure. The embodiment of the present disclosure is optimized based on various optional solutions in the above embodiment. Specifically, the method includes the following steps:

[0067] Step 301: presenting a livestream preview page of a livestream of a preset account subject.

[0068] Step 302: presenting an entrance to a livestream page in the livestream preview page, and presenting, in a preset position in the livestream preview page, subject information of a target preset subject.

[0069] For example, the livestream is associated with a preset object set, the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set for a current user.

[0070] Fig. 4 is a schematic diagram of another interface interaction provided by an embodiment of the present disclosure. As shown in Fig. 4, an entrance 402 to a livestream page is presented in a livestream preview page 401, and first-type subject information 403 of a target preset subject is presented in a preset position in the livestream preview page 401. For example, the preset account subject is a subject of an "XX supermarket hour-reach" account, the first-type subject information 403 is a subject name of the target preset subject, "XX supermarket x road store", where the preset position is an account identification presentation position.

[0071] Step 303: presenting a livestream page of the preset account subject in response to a trigger operation on the entrance to the livestream page of the preset account subject.

[0072] As shown in Fig. 4, after the user clicks the entrance 402 to the livestream page, a livestream page 404 of the preset account subject is presented.

[0073] Step 304: presenting a livestream message set in a preset area of the livestream page, presenting a preset component as a new livestream message in the livestream message set, and presenting, in the preset component, copywriting information of the livestream and the subject information of the target preset subject.

[0074] As shown in Fig. 4, after entering the livestream page 404, the livestream message set is presented in a preset area 405 in the livestream page 404, a preset component 406 is presented as a new livestream message in the livestream message set, and copywriting information 407 of the livestream and second-type subject information 408 of the target preset subject are presented in the preset component 406, which may be geographical location information, specifically "No. x, x Road, x District, x City" in the figure. Optionally, the second-type subject information may further include delivery information.

[0075] Exemplarily, before the livestream starts, the streamer may set whether the preset component is presented and the presentation content in the preset component, etc. through a device on the streamer. For example, an enabling switch corresponding to the preset component is presented in a livestream setting page on the streamer, and if the switch is in an on state, the preset component is presented in the livestream page after the livestream starts. When the enabling switch is in the on state, a first setting area and a second setting area may be presented in the livestream setting page. For example, the first setting area is used to set whether to present the copywriting information in the preset component or to set the specific content of the copywriting information. For example, the copywriting information recommended

by the system is presented in the first setting area, and if the streamer is satisfied with the default copywriting information, there is no need to modify it, otherwise, the streamer may independently edit the copywriting to obtain the copywriting information for presenting in the preset component; the second setting area is used to set whether to present the subject information in the preset component, for example, the second setting area includes a presentation switch, and if the presentation switch is in an on state, the subject information is presented in the preset component when the preset component is presented, and if the presentation switch is in an off state, the subject information is not presented in the preset component when the preset component is presented, for example, only the copywriting information is presented. Optionally, if the presentation switch is triggered, a subject information presentation setting page is displayed, and a preset effect picture is displayed in the subject information presentation setting page, and the preset effect picture is used to present the effect when the preset component is presented on the audience user side.

[0076] Step 305: in response to a new livestream message being added to the livestream message set, moving the preset component in the preset area in a preset direction for presentation.

[0077] As shown in Fig. 4, if a new message is added, the preset component 406 is moved upward in the preset area 405 for presentation.

[0078] Step 306: in response to the preset component being moved to a target position in the preset area, keeping presenting the preset component at the target position for at least a preset duration.

[0079] Step 307: presenting a target page in response to a trigger operation on the preset component, and presenting, in the target page, associated information of the preset account subject.

[0080] For example, the target page is located on an upper layer of the livestream page, and a size of the target page is smaller than a size of the livestream page.

[0081] As shown in Fig. 4, after the user clicks the preset component 406, a target page 409 is presented on an upper layer of the livestream page 404, and associated information (such as an account identification, a number of followers, an account description and a follow control) of XX supermarket hour-reach is presented in the target page 409, so that it is convenient for the user to quickly know the relevant information of the preset account subject.

[0082] According to the information presentation method provided by the embodiment of the present disclosure, the subject information of the target preset subject is presented in the livestream preview page before entering the livestream page, which improves the information acquisition efficiency and the efficiency of entering the livestream page. After entering the livestream page, the preset component in which the copywriting information of the livestream and the subject information of the target preset subject are presented is presented as a new livestream message in the preset area, and the preset component is kept presented at the target position for at least the preset duration, which facilitates the user to accurately obtain the subject information of the target preset subject, and the user may conveniently view the relevant information of the preset account subject by triggering the preset component, which

improves the interaction efficiency. In addition, the types of the subject information of the target preset subject presented in the livestream page and the livestream preview page may be different, which facilitates the user to quickly and comprehensively know the relevant information of different dimensions of the target preset subject, and further improves the information acquisition efficiency.

[0083] Fig. 5 is a schematic structural diagram of an information presentation apparatus provided by an embodiment of the present disclosure, and as shown in Fig. 5, the apparatus includes:

[0084] a preset page presenting module 501, configured to present a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page;

[0085] a subject information presenting module 502, configured to present, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.

[0086] The information presentation apparatus provided by the embodiment of the present disclosure presents the preset page of the livestream associated with the preset object set of the preset account subject, the preset page includes the livestream page and/or the livestream preview page, presents the subject information of the target preset subject in the preset page, the target preset subject is one preset subject in the preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide the delivery service of the preset object in the preset object set. By adopting the above technical solution, when presenting the livestream page and/or the livestream preview page of the livestream of the preset account subject, the subject information of the target preset subject, which provides the delivery service of the preset object, in the preset subject set corresponding to the preset account subject is presented, which makes the presentation of the subject information more intuitive, reduces the operation path for viewing the subject information, improves the convenience for the user watching the livestream to view the subject information, and improves the user experience.

[0087] Optionally, the preset page includes a livestream page; for example, the subject information presenting module 502 includes:

[0088] a preset component presenting unit, configured to present a preset component in the livestream page;

[0089] a first subject information presenting unit, configured to present, in the preset component, the subject information of the target preset subject.

[0090] Optionally, the preset component is included in a livestream message set of the livestream page.

[0091] Optionally, the preset page presenting module 501 is configured to: present the livestream page of the preset account subject in response to a trigger operation on an entrance to the livestream page of the preset account subject;

[0092] for example, the preset component presenting unit includes:

- [0093] a message set presenting subunit, configured to present a livestream message set in a preset area of the livestream page;
- [0094] a message presenting subunit, configured to present a preset component as a new livestream message in the livestream message set.
- [0095] Optionally, the information presentation apparatus further includes:
- [0096] a component moving presenting module, configured to, after presenting the preset component as the new livestream message in the livestream message set, in response to a new livestream message being added to the livestream message set, move the preset component in the preset area in a preset direction for presentation;
- [0097] a component keeping presenting module, configured to in response to the preset component being moved to a target position in the preset area, keep presenting the preset component at the target position for at least a preset duration.
- [0098] Optionally, the information presentation apparatus further includes:
- [0099] a component moving module, configured to after keeping presenting the preset component at the target position for the preset duration, further include: in response to a new livestream message being added to the livestream message set, continuing to move the preset component in the preset direction from the target position.
- [0100] Optionally, the information presentation apparatus further includes:
- [0101] a copywriting information presenting module, configured to present, in the preset component, copywriting information of the livestream, where content of the copywriting information is preset by a streamer corresponding to the preset account subject.
- [0102] Optionally, the information presentation apparatus further includes:
- [0103] a target page presenting module, configured to after presenting, in the preset component, the subject information of the target preset subject, present a target page in response to a trigger operation on the preset component, where the target page is located on an upper layer of the livestream page, and a size of the target page is smaller than a size of the livestream page;
- [0104] an associated information presenting module, configured to present, in the target page, associated information of the preset account subject.
- [0105] Optionally, the preset page includes a livestream preview page;
- [0106] for example, the subject information presenting module 502 includes:
- [0107] a second subject information presenting unit, configured to present, in a preset position in the livestream preview page, the subject information of the target preset subject, where the preset position is associated with an account identification presentation position of the preset account subject.
- [0108] The information presentation apparatus provided by the embodiment of the present disclosure may execute the information presentation method provided by any embodiment of the present disclosure, and has corresponding functional modules and beneficial effects for executing the method.

[0109] It is worth noting that the various units and modules included in the above apparatus are only divided according to functional logic, but are not limited to the above division, as long as the corresponding functions may be realized. In addition, the specific names of the functional units are only for the convenience of distinguishing from each other, and are not used to limit the protection scope of the embodiments of the present disclosure.

[0110] Fig. 6 is a schematic structural diagram of an electronic device provided by an embodiment of the present disclosure. Reference is made to Fig. 6 below, which illustrates a schematic structural diagram of an electronic device (such as a terminal device or a server in Fig. 6) 600 suitable for implementing an embodiment of the present disclosure. The terminal device in the embodiment of the present disclosure may include, but is not limited to, a mobile terminal such as a mobile phone, a laptop, a digital broadcast receiver, a PDA (personal digital assistant), a PAD (tablet computer), a PMP (portable multimedia player), a vehicle-mounted terminal (such as a vehicle navigation terminal), etc., and a fixed terminal such as a digital TV, a desktop computer, etc. The electronic device shown in Fig. 6 is only an example, and should not impose any limitation on the function and scope of use of the embodiments of the present disclosure.

[0111] As shown in Fig. 6, the electronic device 600 may include a processing apparatus (such as a central processing unit, a graphics processor, etc.) 601, which may perform various appropriate actions and processing according to a program stored in a read-only memory (ROM) 602 or a program loaded from a storage apparatus 608 into a random access memory (RAM) 603. In the RAM 603, various programs and data required for the operation of the electronic device 600 are also stored. The processing apparatus 601, the ROM 602 and the RAM 603 are connected to each other through a bus 604. An input/output (I/O) interface 605 is also connected to the bus 604.

[0112] Usually, the following apparatuses may be connected to the I/O interface 605: an input apparatus 606 including, for example, a touch screen, a touchpad, a keyboard, a mouse, a camera, a microphone, an accelerometer, a gyroscope, etc.; an output apparatus 607 including, for example, a liquid crystal display (LCD), a speaker, a vibrator, etc.; a storage apparatus 608 including, for example, a magnetic tape, a hard disk, etc.; and a communication apparatus 609. The communication apparatus 609 may allow the electronic device 600 to perform wireless or wired communication with other devices to exchange data. Although Fig. 6 shows the electronic device 600 with 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.

[0113] In particular, according to an embodiment of the present disclosure, the process described above with reference to the flowchart may be implemented as a computer software program. For example, an embodiment of the present disclosure includes a computer program product, which includes a computer program carried on a non-transitory computer-readable medium, and the computer program includes program code for executing the method shown in the flowchart. In such an embodiment, the computer

program may be downloaded and installed from the network through the communication apparatus 609, or installed from the storage apparatus 608, or installed from the ROM 602. When the computer program is executed by the processing apparatus 601, the above-mentioned functions defined in the method of the embodiment of the present disclosure are executed.

- [0114] The names of messages or information exchanged between multiple apparatuses in the implementations of the present disclosure are only used for illustrative purposes, and are not used to limit the scope of these messages or information.
- [0115] The electronic device provided by the embodiment of the present disclosure belongs to the same inventive concept as the information presentation method provided by the above embodiment. For the technical details not described in detail in this embodiment, reference may be made to the above embodiment, and this embodiment has the same beneficial effects as the above embodiment.
- [0116] An embodiment of the present disclosure provides a computer storage medium having a computer program stored thereon, when the program is executed by a processor, the information presentation method provided by the above embodiment is implemented.
- [0117] An embodiment of the present disclosure provides a computer program product, including a computer program, when the program is executed by a processor, the information presentation method provided by the above embodiment is implemented.
- [0118] It should be noted that the above computer-readable medium in the present disclosure may be a computer-readable signal medium, a computer-readable storage medium, or any combination of the two. The computer-readable storage medium may be, for example, but 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 having 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 disc read-only memory (CD-ROM), an optical storage device, a magnetic storage device, or any suitable combination of the above. In the present disclosure, the computer-readable storage medium may be any tangible medium that contains or stores a program, and the program may be used by or in combination with an instruction execution system, apparatus or device. In the present disclosure, the computer-readable signal medium may include a data signal propagated on a baseband or as a part of a carrier, and computer-readable program code is carried therein. This propagated data signal may adopt multiple 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.

[0119] The above computer-readable medium may be contained in the above electronic device, or may exist alone without being assembled into the electronic device.

[0120] The above computer-readable medium carries one or more programs, which when executed by the electronic device, cause the electronic device to: present a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page; and present, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.

[0121] The computer program code for performing the operations of the present disclosure may be written in one or more programming languages or a combination thereof, the above programming languages include but are 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 code may be executed entirely on a user's computer, partly on the user's computer, as a stand-alone software package, partly on the user's computer and partly on a remote computer, or entirely on the remote computer or server. In the case of involving a remote computer, the remote computer may be connected to the user's computer 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).

[0122] The flowcharts and block diagrams in the drawings illustrate the possibly implemented architectures, functions and operations of the system, method and 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, program segment, or 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 executed substantially in parallel, or they may sometimes be executed 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.

[0123] The involved units described in the embodiments of the present disclosure may be implemented by software or by hardware. Among them, the name of the module does not constitute a limitation on the

module itself under certain circumstances, for example, the preset page presenting module may also be described as "a module for presenting a preset page of a livestream of a preset account subject".

[0124] 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 logic device (CPLD), etc.

[0125] 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 electronic, 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 would include an electrical connection based on one or more lines, 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 disc read-only memory (CD-ROM), an optical storage device, a magnetic storage device, or any suitable combination of the above.

[0126] According to one or more embodiments of the present disclosure, an information presentation method is provided, including:

[0127] presenting a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page; and

[0128] presenting, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.

[0129] According to one or more embodiments of the present disclosure, the preset page includes a livestream page;

[0130] where presenting, in the preset page, the subject information of the target preset subject includes:

[0131] presenting a preset component in the livestream page; and

[0132] presenting, in the preset component, the subject information of the target preset subject.

[0133] According to one or more embodiments of the present disclosure, the preset component is included in a livestream message set of the livestream page.

[0134] According to one or more embodiments of the present disclosure, presenting the livestream page of the livestream of the preset account subject includes:

- [0135] presenting the livestream page of the preset account subject in response to a trigger operation on an entrance to the livestream page of the preset account subject;
- [0136] where presenting the preset component in the livestream page includes:
- [0137] presenting a livestream message set in a preset area of the livestream page; and
- [0138] presenting the preset component as a new livestream message in the livestream message set.
- [0139] According to one or more embodiments of the present disclosure, after presenting the preset component as the new livestream message in the livestream message set, the information presentation method further includes:
- [0140] in response to a new livestream message being added to the livestream message set, moving the preset component in the preset area in a preset direction for presentation; and
- [0141] in response to the preset component being moved to a target position in the preset area, keeping presenting the preset component at the target position for at least a preset duration.
- [0142] According to one or more embodiments of the present disclosure, after keeping presenting the preset component at the target position for the preset duration, the information presentation method further includes:
- [0143] in response to a new livestream message being added to the livestream message set, continuing to move the preset component in the preset direction from the target position.
- [0144] According to one or more embodiments of the present disclosure, the information presentation method further includes:
- [0145] presenting, in the preset component, copywriting information of the livestream, where content of the copywriting information is preset by a streamer corresponding to the preset account subject.
- [0146] According to one or more embodiments of the present disclosure, after presenting, in the preset component, the subject information of the target preset subject, the information presentation method further includes:
- [0147] presenting a target page in response to a trigger operation on the preset component, where the target page is located on an upper layer of the livestream page, and a size of the target page is smaller than a size of the livestream page; and
- [0148] presenting, in the target page, associated information of the preset account subject.
- [0149] According to one or more embodiments of the present disclosure, the preset page includes a livestream preview page;
- [0150] where presenting, in the preset page, the subject information of the target preset subject includes:
- [0151] presenting, in the livestream preview page, the subject information of the target preset subject at a preset position, where the preset position is associated with an account identification presentation position of the preset account subject.
- [0152] According to one or more embodiments of the present disclosure, an information presentation apparatus is provided, including:

- [0153] a preset page presenting module, configured to present a preset page of a livestream of a preset account subject, where the livestream is associated with a preset object set, and the preset page includes a livestream page and/or a livestream preview page; and
- [0154] a subject information presenting module, configured to present, in the preset page, subject information of a target preset subject, where the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.
- [0155] The above description is only preferred embodiments of the present disclosure and an explanation of the technical principles employed. Those skilled in the art should understand that the scope of disclosure involved in the present disclosure is not limited to the technical solutions 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 the technical features with similar functions disclosed in the present disclosure (but not limited to).
- [0156] Additionally, although operations are depicted in a particular order, it should not be understood that these operations are required to be performed in a specific order as illustrated or in a sequential order. Under certain circumstances, multitasking and parallel processing may be advantageous. Likewise, although several specific implementation details are included in the above discussion, these should not be interpreted as limitations on 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 that are described in the context of a single embodiment may also be implemented in multiple embodiments separately or in any suitable sub-combinations.
- [0157] 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. Rather, the specific features and actions described above are merely example forms of implementing the claims.

CLAIMS

1. An information presentation method, comprising:
 - presenting a preset page of a livestream of a preset account subject, wherein the livestream is associated with a preset object set, and the preset page comprises a livestream page and/or a livestream preview page; and
 - presenting, in the preset page, subject information of a target preset subject, wherein the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.
2. The method of claim 1, wherein the preset page comprises the livestream page;
 - wherein presenting, in the preset page, the subject information of the target preset subject comprises:
 - presenting a preset component in the livestream page; and
 - presenting, in the preset component, the subject information of the target preset subject.
3. The method of claim 2, wherein the preset component is comprised in a livestream message set of the livestream page.
4. The method of claim 2, wherein presenting the livestream page of the livestream of the preset account subject comprises:
 - presenting the livestream page of the preset account subject in response to a trigger operation on an entrance to the livestream page of the preset account subject;
 - wherein presenting the preset component in the livestream page comprises:
 - presenting a livestream message set in a preset area of the livestream page; and
 - presenting the preset component as a new livestream message in the livestream message set.
5. The method of claim 4, wherein after presenting the preset component as the new livestream message in the livestream message set, the method further comprises:
 - in response to a new livestream message being added to the livestream message set, moving the preset component in the preset area in a preset direction for presentation; and
 - in response to the preset component being moved to a target position in the preset area, keeping presenting the preset component at the target position for at least a preset duration.
6. The method of claim 5, wherein after keeping presenting the preset component at the target position for the preset duration, the method further comprises:
 - in response to a new livestream message being added to the livestream message set, continuing to move the preset component in the preset direction from the target position.

7. The method of any of claims 2 to 6, wherein the method further comprises:
presenting, in the preset component, copywriting information of the livestream, wherein content of the copywriting information is preset by a streamer corresponding to the preset account subject.

8. The method of any of claims 2 to 7, wherein after presenting, in the preset component, the subject information of the target preset subject, the method further comprises:
presenting a target page in response to a trigger operation on the preset component, wherein the target page is located on an upper layer of the livestream page, and a size of the target page is smaller than a size of the livestream page; and
presenting, in the target page, associated information of the preset account subject.

9. The method of claim 1, wherein the preset page comprises a livestream preview page;
wherein presenting, in the preset page, the subject information of the target preset subject comprises:
presenting, in the livestream preview page, the subject information of the target preset subject at a preset position, wherein the preset position is associated with an account identification presentation position of the preset account subject.

10. An information presentation apparatus, comprising:
a preset page presenting module, configured to present a preset page of a livestream of a preset account subject, wherein the livestream is associated with a preset object set, and the preset page comprises a livestream page and/or a livestream preview page; and
a subject information presenting module, configured to present, in the preset page, subject information of a target preset subject, wherein the target preset subject is one preset subject in a preset subject set corresponding to the preset account subject, and the target preset subject is configured to provide a delivery service of a preset object in the preset object set.

11. An electronic device, comprising:
one or more processors; and
a storage apparatus, configured to store one or more programs,
wherein when the one or more programs are executed by the one or more processors, the one or more processors are caused to implement the information presentation method of any of claims 1 to 9.

12. A storage medium comprising computer-executable instructions, wherein when the computer-executable instructions are executed by a computer processor, the information presentation method of any of claims 1 to 9 is implemented.

13. A computer program product, comprising a computer program, wherein when the computer program is executed by a processor, the information presentation method of any of claims 1 to 9 is implemented.