

INFORMATION DISPLAY METHOD AND APPARATUS, DEVICE AND STORAGE MEDIUM

[0001] The present application claims priority to Chinese Patent Application No. 202410465386.7, filed on April 17, 2024, which is incorporated herein by reference in its entirety as a part of the present application.

TECHNICAL FIELD

[0002] Embodiments of the present disclosure relate to an information presentation method, an apparatus, a device, and a storage medium.

BACKGROUND

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

SUMMARY

[0004] Embodiments of the present disclosure provide an information presentation method, an apparatus, a device, and a storage medium, which may optimize information presentation solutions.

[0005] In a first aspect, an embodiment of the present disclosure provides an information presentation method, including:
presenting a subject page of a target subject in response to a trigger operation for a target message, where the target message includes target service information of a first target object, the first target object is at least one of objects provided by the target subject, and the subject page is configured for presenting object information of the objects provided by the target subject; and
presenting first object information of the first target object in the subject page, where the first object information includes at least information determined according to all or part of content of the target service information.

[0006] In a second aspect, an embodiment of the present disclosure provides an information presentation apparatus, including:
a subject page presenting module, configured to present a subject page of a target subject in response to a trigger operation for a target message, where the target message includes target service information of a first target object, the first target object is at least one of objects provided by the target subject, and the

subject page is configured for presenting object information of the objects provided by the target subject; and

a first object information presenting module, configured to present first object information of the first target object in the subject page, where the first object information includes at least information determined according to all or part of content of the target service information.

[0007] In a third aspect, an embodiment of the present disclosure provides an electronic device, the electronic device includes:

one or more processors;

a storage apparatus, configured to store one or more programs,

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 embodiments of the present disclosure.

[0008] In a fourth aspect, an embodiment of the present disclosure 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 embodiments of the present disclosure is performed.

BRIEF DESCRIPTION OF DRAWINGS

[0009] The above and other features, advantages, and aspects of the embodiments of the present disclosure will become more apparent in combination with the drawings and with reference to the following specific embodiments. Throughout the drawings, the same or similar reference numerals represent the same or similar elements. It should be understood that the drawings are schematic and that parts and elements are not necessarily drawn to scale.

[0010] Fig. 1 is a schematic flowchart of an information presentation method provided by an embodiment of the present disclosure;

[0011] Fig. 2 is a schematic diagram of interface interaction provided by an embodiment of the present disclosure;

[0012] Fig. 3 is a schematic diagram of another interface interaction provided by an embodiment of the present disclosure;

[0013] Fig. 4 is a schematic flowchart of another information presentation method provided by an embodiment of the present disclosure;

[0014] Fig. 5 is a schematic diagram of still another interface interaction provided by an embodiment of the present disclosure;

[0015] Fig. 6 is a schematic structural diagram of an information presentation apparatus provided by an embodiment of the present disclosure; and

[0016] Fig. 7 is a schematic structural diagram of an electronic device provided by an embodiment of the present disclosure.

DETAILED DESCRIPTION

[0017] Hereinafter, embodiments of the present disclosure will be described in more detail with reference to the drawings. Although some embodiments of the present disclosure are shown in the drawings, it should be understood that the present disclosure may be implemented in various forms, and should not be construed as being 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 for exemplary purposes, and are not intended to limit the protection scope of the present disclosure.

[0018] It should be understood that various steps described in the method implementations of the present disclosure may be executed in different orders, and/or executed in parallel. Furthermore, 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.

[0019] The term "include/comprise" and its variations used in the present disclosure 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.

[0020] It should be noted that concepts such as "first", "second" and the like as 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.

[0021] It should be noted that the modifiers "one" and "multiple" as mentioned in the present disclosure are illustrative and not restrictive, and those skilled in the art should understand that they should be understood as "one or more", unless otherwise clearly indicated in the context.

[0022] It may be understood that before implementing the technical solutions disclosed in the 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 and the authorization of the user should be obtained according to relevant laws and regulations.

[0023] 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, based on the prompt information, whether to provide the 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.

[0024] As an optional but non-limiting implementation, in response to receiving the active request from the user, the prompt information may be sent to the user in the form of, for example, a pop-up window, in which the prompt information may be presented in text. Furthermore, the pop-up window may also include a selection control for the user to select whether to "agree" or "disagree" to provide the personal information to the electronic device.

[0025] 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 the relevant laws and regulations may also be applied in the implementations of the present disclosure.

[0026] It may be understood that the data involved in the technical solutions of the present disclosure (including but not limited to the data itself, acquisition or use of the data) should comply with the requirements of corresponding laws, regulations, and related provisions.

[0027] 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 information presentation, and the method may be performed by an information presentation apparatus which may be implemented in the form of software and/or hardware. Optionally, the information presentation apparatus is implemented by an electronic device, where the electronic device may be a mobile terminal, such as a mobile phone, a smart watch, a tablet computer, and a personal digital assistant, or may be a device, such as a personal computer (PC) or a server.

[0028] As shown in Fig. 1, the method includes steps 101 and 102.

[0029] At step 101, a subject page of a target subject is presented in response to a trigger operation for a target message, where the target message includes target service information of a first target object, the first target object is at least one of objects provided by the target subject, and the subject page is configured for presenting object information of the objects provided by the target subject.

[0030] The objects in the embodiments of the present disclosure may specifically be resources that may be acquired through an Internet platform, such as products, items, services, information, or virtual resources; and the subject may specifically be a provider for providing the objects, such as a merchant or a store.

[0031] Exemplarily, the subject page may be a page in a client, the above Internet platform may be understood as a server corresponding to the client, and the client may be a preset application installed in the electronic device.

[0032] Exemplarily, the target message may be a message pushed by a system of the electronic device, such as a message presented in the electronic device while the preset application is running in the background or while the preset application is in a closed state; the target message may also be an in-app

message of the client, such as a message presented in the preset application while the preset application is running in the foreground.

[0033] Exemplarily, the first target object may be any object provided by the target subject. The target service information included in the target message may include, for example, relevant information of a preset service corresponding to the first target object. Taking the first target object as a product for an example, the preset service may include, for example, a product listing service, a product promotion service, or a product delisting service. The relevant information of the preset service may include, for example, service prompt information, and the service prompt information may be configured for prompting preset service attribute information and/or preset service attribute change information of the first target object, which may facilitate the user to quickly and intuitively know the relevant information of the preset service attribute of the first target object by viewing the target message. The preset service attribute may be an attribute or an indicator used for representing a service feature of the object to which the preset service attribute belongs. Taking the first target object as a product for an example, the preset service attribute may include, for example, a price, a stock, a sales volume, etc. The preset service attribute information may be a specific attribute value of the preset service attribute, such as a specific price, and the preset service attribute change information may be change information of the attribute value of the preset service attribute, such as a price reduction range or an accumulated sales volume.

[0034] Exemplarily, a presentation condition of the target message is not limited, and the presentation condition may include a presentation timing and the like. The presentation condition may be associated with a historical interaction operation for an object provided by the Internet platform (for example, the presentation condition may be associated with the first target object, and the presentation condition may also be associated with an object other than the first target object, for example, the presentation condition may be associated with objects provided by multiple preset subjects in the Internet platform), in this way, the presentation of the target message may be reasonably determined, the presentation effect of the target message may be improved, and the probability of the target message being triggered may be improved. The historical interaction operation may include interaction operations that have been input, such as an attention operation, a collection operation, a search operation, a browsing operation, and a selection operation. The presentation condition may be determined according to an accumulated input number of the historical interaction operation within a preset period of time, an input frequency of the historical interaction operation within a preset period of time, or a number of objects for the historical interaction operation, etc. For example, the number of the products that have been added to the collection is greater than or equal to a preset number threshold. Optionally, the presentation condition of the target message includes: the historical interaction operation for the first target object includes an interaction operation belonging to a preset interaction type. The preset interaction type may include at least one of an attention operation, a collection operation, a search operation, a browsing operation, or a selection operation. For another example, the presentation condition of the target message may be associated with whether the first

target object satisfies a preset condition, specifically, in response to that the first target object satisfies the preset condition, the target message is presented. Optionally, the presentation condition of the target message includes: the preset service attribute information of the first target object satisfies a first preset condition and/or the preset service attribute change information of the first target object satisfies a second preset condition. The first preset condition may be for example that the preset service attribute information of the first target object is within a preset range; the second preset condition may be for example that the preset service attribute change information of the first target object is within a preset interval. Taking the first target object as a product for an example, the preset service attribute is a price, the first preset condition may be that a current price is less than or equal to a historical lowest price, and the second preset condition may be that a difference between the current price and a historical price when the historical interaction operation belonging to the preset interaction type for the first target object was input last time, divided by the historical price, is greater than a preset value, etc.

[0035] Exemplarily, the trigger operation for the target message may be an operation such as a click, a double-click, or a long press. The subject page of the target subject is configured for presenting associated information of the target subject, where the associated information may be presented in an initial state of presenting the subject page, or may be presented after receiving a user operation (such as a slide operation), which is not specifically limited. The associated information of the target subject includes the object information of the objects provided by the target subject, and the associated information may also include other information related to the target subject, for example, the associated information may include subject attribute information of the target subject, the subject attribute information may specifically include a subject identification, a subject description, and a subject evaluation score, etc., and the associated information may also include subject service statistical information of the target subject, subject-related interactive controls, and the like. Taking the first target object as a product for an example, the target subject is a target store, the subject page is a store page, and the associated information of the store page may include, for example, product information of the products sold by the target store, a store name of the target store, an introduction of the main business of the store, a store evaluation score, a number of followers, an accumulated sales volume, a number of media works posted, and an attention control, etc.

[0036] At step 102, first object information of the first target object is presented in the subject page, where the first object information includes at least information determined according to all or part of content of the target service information.

[0037] Exemplarily, the first object information includes information associated with the target service information, and may also include other information associated with the first target object, such as object attribute information of the first target object. Exemplarily, the first object information includes all or part of the content of the target service information, or information obtained after performing key information extraction and conversion on the target service information. Specifically, the target service information

may be identified, or tag information associated with the target service information may be acquired, a preset information template corresponding to the target service information is determined according to an identification result or the tag information, content to be filled in the preset information template is extracted from the target service information, and the content to be filled is filled into the preset information template to obtain the information to be included in the first object information, where the tag information is preset information for identifying the preset information template. For example, the target service information may include the service prompt information, and the first object information may include all or part of the content of the service prompt information, for example, the first object information may include the preset service attribute information and/or the preset service attribute change information. Taking the first target object as a product for an example, the service prompt information is "the price of the product has dropped by x since it was added to the collection", and the first object information may include, for example, "a price drop x".

[0038] Exemplarily, the first object information may be presented in a first area of the subject page, that is, presenting the first object information of the first target object in the subject page may include: presenting the first object information of the first target object in the first area of the subject page. A specific position, a size, etc. of the first area are not limited, and may be preset.

[0039] Fig. 2 is a schematic diagram of interface interaction provided by an embodiment of the present disclosure. As shown in Fig. 2, a target message 202 is presented in a preset page 201, the preset page 201 may be a desktop of an electronic device, a page of a preset application, or a page of another application other than the preset application, etc., and the target message 202 may be presented in the form of a pop-up window or the like, which is not specifically limited. The target message 202 includes target service information of an object A (a first target object), for example, an attribute value of a preset service attribute XX of the object A has been changed to YY. After the user clicks the target message 202, a subject page 203 of a target subject is accessed, where the target subject is a subject that provides the object A, and associated information of the target subject, which may specifically be a subject name, is presented in the subject page 203. First object information 204 of the object A is presented in the subject page 203, and the first object information 204 is associated with the target service information. For example, it is identified from the target service information that the attribute value of the preset service attribute XX of the object A has changed to YY, and the identified information is filled into a preset information template, such as (preset service attribute type) currently being (attribute information), to obtain that XX is currently YY. The first object information 204 may also include object attribute information of the first target object, such as an object name and an object associated image.

[0040] In the information presentation method provided by the embodiments of the present disclosure, a subject page of a target subject is presented in response to a trigger operation for a target message, where the target message includes target service information of a first target object, the first target object is at least one of objects provided by the target subject, the subject page is configured for presenting object

information of the objects provided by the target subject, and first object information of the first target object is presented in the subject page, where the first object information includes at least information determined according to all or part of content of the target service information. Through the above technical solution, after viewing the target message containing the target service information of the target object, the user may directly access the subject page of the target subject to which the target object belongs by triggering the target message, and the information of the target object determined according to all or part of the content of the target service information may be viewed in the subject page, thus information presentation efficiency and interaction effect may be improved.

[0041] In some embodiments, the method further includes: presenting second object information of a second target object in a second area of the subject page, where the second target object is an object provided by the target subject. In this way, after accessing the subject page of the target subject by triggering the target message, the user may view not only the first object information, but also object information of other objects provided by the target subject, thus further improving information presentation efficiency, and satisfying the user's need to view object information about multiple objects from the same subject on the same page. Optionally, the second area is located below the first area.

[0042] Exemplarily, the second target object may be any one or more objects provided by the target subject that are different from the first target object. The second object information of the second target object belongs to the associated information of the target subject. Optionally, the second object information of at least one second target object may be presented at the same time as the first object information is presented, or the second object information may be presented in response to a user operation (such as a slide-up operation) after the first object information is presented. Optionally, the second target object is determined based on an association degree with the first target object. The association degree may be determined based on at least one of: a similarity degree between the second target object and the first target object; or a matching degree between the second target object and the first target object. For example, the similarity degree between the second target object and the first target object meets a preset similarity requirement, for example, the second target object and the first target object belong to the same category of objects, which meets the preset similarity requirement. A specific classification manner of the object category is not limited. Taking products for an example, the object category may be divided based on dimensions such as a product use, a product material, a product specification, a product style, and a product sales volume. Exemplarily, the matching degree between the second target object and the first target object meets a preset matching degree requirement, and the matching degree may be determined based on whether there is a preset binding relationship between a category to which the second target object belongs and a category to which the first target object belongs, for example, in response to that there is a preset binding relationship, the preset matching degree requirement is met. Exemplarily, the preset binding relationship may be set by the Internet platform, the client, or the user. Taking products for an example, the first target object is a coat, and the second target

object may be a pair of pants, which may form a whole set of clothing when matched with the first target object, and the matching degree meets the preset matching degree requirement. Optionally, the preset binding relationship may be determined based on a historical interaction event, which may be understood as a preset interaction event that has been occurred. Exemplarily, a trigger sequence and a trigger interval of historical interaction events of different categories of objects may be counted, and then whether there is a preset binding relationship between the different categories of objects is determined according to a counting result. For example, in response to that the different categories of objects are triggered in sequence, and the trigger interval is less than a preset interval threshold (such as 15 minutes, which may be set according to actual needs), it may be determined that there is a preset binding relationship. Certainly, other determination manners may also be set. For example, many users will purchase popcorn within a short period of time after purchasing movie tickets, and a preset binding relationship between movie tickets and popcorn may be determined according to this historical interaction event; for another example, many users will purchase a drink coupon within a short period of time after purchasing a hot pot group buying coupon, and a preset binding relationship between the hot pot group buying coupon and the drink coupon may be determined according to this historical interaction event.

[0043] Exemplarily, the second object information may include, for example, information associated with the second target object, such as object attribute information of the second target object, such as an object name or an object associated image of the second target object, and the second object information may also include a service attribute, such as an acquisition cost (such as a price).

[0044] In some embodiments, the first object information includes first-type object information and second-type object information, and the second object information includes the first-type object information, where the first-type object information includes object attribute information, the second-type object information is associated with the target service information (for example, the second-type object information is information determined according to all or part of the content of the target service information), the second-type object information is information determined according to all or part of the content of the target service information, the target service information includes service prompt information, and the service prompt information is configured for prompting preset service attribute information and/or preset service attribute change information of the first target object. In this way, the user may quickly distinguish the first target object from the second target object, and may fully understand the first target object by viewing different types of object information, and the user may understand the second target object through the object attribute information, thereby helping the user to quickly decide whether to input a subsequent interaction operation for the first target object or the second target object, and improving interaction efficiency.

[0045] Exemplarily, the object attribute information may include attribute-related information and/or service-related information of the object to which the object attribute information belongs, the attribute-related information such as an object identification (such as a product name), an object feature (such as a

product selling point), an object associated image (such as a product photo, a product explanation video, or a product explanation video cover), a brand, a model, a material or an ingredient, and the like, and the service-related information may include, for example, an object acquisition cost (such as a product price), an object stock (such as whether there is stock or a remaining quantity), an object accumulated acquisition number (such as a product sales volume), an object accumulated repeat acquisition number (such as a product repurchase number), and an object online time attribute (such as a new product tag).

[0046] In some embodiments, the method further includes: presenting at least one second preset control in a third area of the subject page, where the third area is associated with the second area (for example, the third area is adjacent to the second area), and the second preset control is configured for filtering and/or sorting the second object information presented in the second area. In this way, it is convenient for the user to quickly filter and/or sort the second object information by triggering the second preset control in the subject page, thereby improving viewing efficiency of the second object information.

[0047] Exemplarily, a function of the second preset control may be set based on multiple dimensions in the object attribute information, such as based on the attribute-related information and/or the service-related information. For example, the second target object to which the second object information belongs may be filtered based on the sales volume, a new product, a price, etc., or the second object information may be sorted. An association relationship between the third area and the second area is not limited. For example, a distance between a position of the third area (such as a center position of the area) and a position of the second area (such as a center position of the area) is less than a preset distance threshold. For another example, the third area is located above or on the left of the second area, and the third area and the second area have a connected area boundary or area boundaries spaced apart with a distance less than a target distance threshold.

[0048] In some embodiments, presenting the first object information of the first target object in the subject page, includes: presenting the first object information of the first target object in a first area of the subject page. The method further includes: presenting a first preset control corresponding to the first target object in the first area. The method further includes: presenting a first preset page in response to a trigger operation for a first sub-area in the first area, and presenting detailed information of the first target object in the first preset page; and/or presenting a second preset page in response to a trigger operation for the first preset control, where the second preset page is configured for receiving a preset interaction operation for the first target object, and the preset interaction operation is configured for acquiring the first target object. In this way, it is convenient for the user to access different preset pages by triggering different sub-areas in the first area in the subject page, so as to further input corresponding interaction operations, thereby improving the convenience of the interaction operations for the first target object.

[0049] Exemplarily, the first area may be a preset area in the subject page, such as a top area or a middle area. A union of the first sub-area and a second sub-area is the first area, and there is no intersection between the first sub-area and the second sub-area. For example, an area other than a presentation area of

the first preset control in the first area is the second sub-area. The detailed information of the first target object may include, for example, information for introducing the first target object in detail, such as a multi-angle image or video of the product, a product description, an ingredient list, or an expiration date. Taking a product for an example, the preset interaction operation may include, for example, a stock keeping unit (SKU) selection operation (when there are multiple SKUs for the current product), a purchase operation, or a submit order operation (when the SKU selection operation is not required, the submit order operation may be directly input).

[0050] In some embodiments, the presenting the first object information of the first target object in the subject page, includes: presenting the first object information of the first target object in a first area of the subject page. The method further includes: presenting subject attribute information of the target subject in a fourth area of the subject page, where the fourth area is located above the first area.

[0051] Fig. 3 is a schematic diagram of another interface interaction provided by an embodiment of the present disclosure. As shown in Fig. 3, it is assumed that a preset application is an application with a media content presentation function and an online shopping function. In a process of a current user browsing media content posted by other users based on a media content presentation page 301 in the preset application, a target message 302 is triggered to be presented on the media content presentation page 301 due to a price reduction of a product A (a first target object) that has been added to the collection by the current user in history. The target message 302 includes target service information "price reduction" of the product A, and after the current user clicks the target message 302, a subject page 303 of an X store that provides the product A is presented, subject attribute information of the X store, such as a store identification, is presented at the top (a fourth area) of the subject page 303, a subject associated control of the store, such as an attention control, may also be presented in the fourth area, first object information of the product A is presented in a first area 304 of the subject page 303, the first object information may include a name of the product A, an image of the product A, a price of the product A, and "a price reduction greater than x" and "recommended for you" determined according to the target service information. Moreover, a first preset control 305 corresponding to the product A is presented in the first area 304, second object information of a product B and a product C (both are second target objects), such as product images and product prices, is presented in a second area 306 of the subject page 303, and multiple second preset controls for filtering and/or sorting the second object information are presented in a third area 307 above the second area 306 of the subject page 304. When the user wants to further view details of the product A, a first sub-area (such as an area other than a presentation area of the first preset control 305) in the first area 304 may be triggered to access a first preset page 308, and the detailed information of the product A is presented in the first preset page 308; when the user wants to directly purchase the product A, a second sub-area (the presentation area of the first preset control 305) in the first area 304 may be triggered to access a second preset page 309, and a preset interaction operation

for the product A may be input based on the second preset page 309, such as triggering a submit order operation.

[0052] In some embodiments, after presenting the first object information of the first target object in the subject page, the method further includes: presenting a service aggregation page in response to a first preset operation for the subject page, where the service aggregation page includes service function entrances corresponding to multiple preset subjects, and the multiple preset subjects include the target subject. In this way, it is convenient for the user to quickly access the service aggregation page from the subject page, and then use service functions of more subjects in the service aggregation page, thereby improving interaction convenience and interaction efficiency.

[0053] Exemplarily, taking an object as a product for an example, an Internet platform is an online mall platform, a preset subject is a merchant or a store in the online mall platform, a service aggregation page may be a mall homepage, and service function entrances may include, for example, an order viewing entrance, a customer service message viewing entrance, and a followed store list viewing entrance. The first preset operation may be, for example, a page jump operation, for example, a preset page return control is presented in the subject page, and the first preset operation may be a trigger operation for the preset page return control. As shown in Fig. 3, the preset page return control may be an arrow identification in the upper left corner of the subject page 303, and the mall homepage may be accessed by clicking the preset page return control.

[0054] In some embodiments, the presenting the subject page of the target subject in response to the trigger operation for the target message includes: presenting a service aggregation page and a first subject page of the target subject in response to the trigger operation for the target message, where the first subject page belongs to the subject page, the service aggregation page includes at least one service function entrance corresponding to multiple preset subjects, and the multiple preset subjects include the target subject. In this way, after triggering the target message, the user may view both the service aggregation page and the subject page of the target subject at the same time, thereby further improving information presentation efficiency and interaction convenience.

[0055] Exemplarily, a relative position relationship between the service aggregation page and the first subject page is not limited. For example, the service aggregation page and the first subject page may have a same-layer presentation relationship, such as the service aggregation page and the first subject page being presented on different screens. Specifically, the service aggregation page is presented in a first screen area, the first subject page is presented in a second screen area, and the first screen area and the second screen area constitute an entire screen area. For another example, the service aggregation page and the first subject page may have a hierarchical presentation relationship, the first subject page is located on the service aggregation page, or the service aggregation page is located on an upper layer of the first subject page, where a size of the upper layer page is smaller than a size of the lower layer page.

[0056] In some embodiments, the presenting the service aggregation page and the first subject page of the target subject in response to the trigger operation for the target message includes: presenting the service aggregation page and presenting the first subject page of the target subject on an upper layer of the service aggregation page in response to the trigger operation for the target message, where a size of the subject page is smaller than a size of the service aggregation page. After presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page, the method further includes: switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting the service aggregation page in response to a second preset operation; and/or switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting a second subject page of the target subject in response to a third preset operation, where a size of the second subject page is larger than the size of the subject page, and presentation content in the second subject page includes presentation content in the subject page. In this way, after presenting the service aggregation page and the first subject page in an upper-lower layer manner, the user may choose to view more page content of a certain page in a larger screen presentation area according to actual needs of the user, thereby improving interaction efficiency.

[0057] Exemplarily, the second preset operation and the third preset operation may be operations of a same type but with different operation attributes, for example, the second preset operation and the third preset operation are both slide operations, while their operation attributes such as sliding direction may be different, for example, the second preset operation and the third preset operation are respectively an upward slide operation and a downward slide operation. Exemplarily, switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting the service aggregation page may specifically be: gradually reducing a presentation area of the first subject page until the first subject page disappears on the upper layer of the service aggregation page. Exemplarily, switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting the second subject page of the target subject may specifically be: gradually increasing the presentation area of the first subject page until the first subject page completely covers the service aggregation page.

[0058] Fig. 4 is a schematic flowchart of another information presentation method provided by an embodiment of the present disclosure. The embodiments of the present disclosure are optimized based on various optional solutions in the above embodiments. Specifically, the method includes the following steps 401, 402, 403 and 404.

[0059] At step 401, a service aggregation page is presented and a first subject page of a target subject is presented on an upper layer of the service aggregation page, in response to a trigger operation for a target

message, where the service aggregation page includes at least one service function entrance corresponding to multiple preset subjects, and a size of the first subject page is smaller than a size of the service aggregation page.

[0060] Fig. 5 is a schematic diagram of another interface interaction provided by an embodiment of the present disclosure. As shown in Fig. 5, a target message 502 is presented on a desktop 501 of an electronic device, the target message includes an application icon of a preset application, and includes target service information of a product A, such as service prompt information "Price reduction" and "Reduced by RMB 20 ", and the target service information may also include a service associated image of the first target object, such as an image of the product A. After the user clicks the target message 502, the preset application is run in foreground, the service aggregation page 503 is presented in the preset application, and the first subject page 504 of the target subject is presented on the upper layer of the service aggregation page 503. The size of the first subject page 504 is smaller than that of the service aggregation page 503, so that the user may view page content in both the service aggregation page 503 and the first subject page 504 of the target subject at the same time.

[0061] At step 402, first object information of the first target object in a first area of the first subject page is presented, and a first preset control corresponding to the first target object is presented in the first area.

[0062] As shown in Fig. 5, the first object information of the product A and the first preset control 506 of the product A are presented in a first area 505 of the first subject page 504.

[0063] At step 403, second object information of a second target object is presented in a second area of the first subject page, and at least one second preset control is presented in a third area of the first subject page, and then step 404 or step 405 is performed.

[0064] As shown in Fig. 5, the second object information (such as images of the products) of the product B and the product C that are similar to the product A is presented in the second area of the first subject page 504, and multiple second preset controls (such as comprehensive, sales volume, and price) for filtering and/or sorting the second object information are presented in the third area above the second area.

[0065] Exemplarily, after the first subject page, the method may further include: switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting the service aggregation page in response to a second preset operation; and/or switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting a second subject page of the target subject in response to a third preset operation.

[0066] As shown in Fig. 5, after the user inputs an upward slide operation based on the first subject page 504, the second subject page 509 may be presented in full screen, so that more second object information may be viewed. After the user inputs a downward slide operation based on the first subject page 504 (or triggers a screen area where the service aggregation page is located by clicking or the like), the service

aggregation page 510 in full screen may be presented, so that more service functions may be used based on the service aggregation page 510, such as browsing products in a store other than the target store.

[0067] At step 404, a first preset page is presented in response to a trigger operation for a first sub-area in the first area, and detailed information of the first target object is presented in the first preset page.

[0068] As shown in Fig. 5, when the user wants to further view details of the product A, the first sub-area (such as an area other than a presentation area of the first preset control 506) in the first area 505 may be triggered, and then presenting the first subject page 504 on the upper layer of the service aggregation page 503 is switched to presenting the first preset page 507 on the upper layer of the service aggregation page 503, and the detailed information of the product A is presented in the first preset page 507.

[0069] At step 405, a second preset page is presented in response to a trigger operation for a second sub-area in the first area.

[0070] As shown in Fig. 5, when the user wants to directly purchase the product A, the second sub-area (the presentation area of the first preset control 506) in the first area 505 may be triggered, and then presenting the first subject page 504 on the upper layer of the service aggregation page 503 to presenting the second preset page 508 on the upper layer of the service aggregation page 503, and a preset interaction operation for the product A may be input based on the second preset page 508, such as triggering a submit order operation.

[0071] Optionally, in a case where the first preset page 507 and/or the second preset page 508 are presented, the user may also input the second preset operation (such as the downward slide operation) to present the service aggregation page 510 in full screen, or the user may input the third preset operation (such as the upward slide operation) to present the first preset page in full screen and/or the second preset page in full screen.

[0072] According to the information presentation method provided by the embodiment of the present disclosure, the service aggregation page is presented and the first subject page of the target subject is presented on the upper layer of the service aggregation page, in response to the trigger operation for the target message, the first object information of the first target object and the corresponding first preset control are presented in the first area of the first subject page, the second object information of the second target object is presented in the second area, and the at least one second preset control for filtering or sorting the second object information is presented in the third area. In this way, the service aggregation page and the subject page of the subject to which the first target object in the target message belongs may be presented at the same time, thereby effectively improving information presentation efficiency, and the user may further view details of the first target object, acquire the first target object, view the second target information, view the service aggregation page, etc. according to actual needs, thereby effectively improving interaction efficiency and interaction convenience.

- [0073] Fig. 6 is a schematic structural diagram of an information presentation apparatus provided by an embodiment of the present disclosure. As shown in Fig. 6, the apparatus includes a subject page presenting module 601 and a first object information presenting module 602.
- [0074] The subject page presenting module 601 is configured to present a subject page of a target subject in response to a trigger operation for a target message. The target message includes target service information of a first target object, the first target object is at least one of objects provided by the target subject, and the subject page is configured for presenting object information of the objects provided by the target subject.
- [0075] The first object information presenting module 602 is configured to present first object information of the first target object in the subject page. The first object information includes at least information determined according to all or part of content of the target service information.
- [0076] According to the information presentation apparatus provided by the embodiments of the present disclosure, after viewing the target message containing the target service information of the target object, the user may directly access the subject page of the target subject to which the target object belongs by triggering the target message, and the information of the target object determined according to all or part of the content of the target service information may be viewed in the subject page, thus information presentation efficiency and interaction effect may be improved.
- [0077] Optionally, the first object information presenting module is configured to present the first object information of the first target object in a first area of the subject page.
- [0078] The apparatus further includes a second object information presenting module.
- [0079] The second object information presenting module is configured to present second object information of a second target object in a second area of the subject page. The second target object is an object provided by the target subject, and the second area is located below the first area.
- [0080] Optionally, the target service information includes service prompt information, and the service prompt information is configured for prompting preset service attribute information and/or preset service attribute change information of the first target object.
- [0081] Optionally, a presentation condition of the target message includes: a historical interaction operation for the first target object includes an interaction operation belonging to a preset interaction type; and/or the preset service attribute information of the first target object satisfies a first preset condition and/or the preset service attribute change information of the first target object satisfies a second preset condition.
- [0082] Optionally, the second target object is determined based on an association degree with the first target object. The association degree is determined based on at least one of: a similarity degree between the second target object and the first target object; or a matching degree between the second target object and the first target object.

- [0083] Optionally, the first object information presenting module is configured to: present the first object information of the first target object in a first area of the subject page.
- [0084] The apparatus further includes a first preset control presenting module.
- [0085] The first preset control presenting module is configured to present a first preset control corresponding to the first target object in the first area.
- [0086] The apparatus may further include a first preset page presenting module and a second preset page presenting module.
- [0087] The first preset page presenting module is configured to present a first preset page in response to a trigger operation for a first sub-area in the first area, and present detailed information of the first target object in the first preset page. The first sub-area includes a presentation area of the first object information.
- [0088] The second preset page presenting module is configured to present a second preset page in response to a trigger operation for a second sub-area in the first area. The second sub-area includes a presentation area of the first preset control, the second preset page is configured for receiving a preset interaction operation for the first target object, and the preset interaction operation is configured for acquiring the first target object.
- [0089] Optionally, the first object information includes first-type object information and second-type object information, and the second object information includes the first-type object information. The first-type object information includes object attribute information, the second-type object information is information determined according to all or part of the content of the target service information, the target service information includes service prompt information, and the service prompt information is configured for prompting preset service attribute information and/or preset service attribute change information of the first target object.
- [0090] Optionally, the apparatus may further include a second preset control presenting module.
- [0091] The second preset control presenting module is configured to present at least one second preset control in a third area of the subject page. The third area is adjacent to the second area, and the second preset control is configured for filtering and/or sorting the second object information presented in the second area.
- [0092] Optionally, the subject page presenting module is configured to: present a service aggregation page and a first subject page of the target subject in response to the trigger operation for the target message. The first subject page belongs to the subject page, the service aggregation page includes at least one service function entrance corresponding to multiple preset subjects, and the multiple preset subjects include the target subject.
- [0093] Optionally, the apparatus further includes a service aggregation page presenting module.
- [0094] The service aggregation page presenting module is configured to, after presenting the first object information of the first target object in the subject page, present a service aggregation page in response to

a first preset operation for the subject page. The service aggregation page includes at least one service function entrance corresponding to multiple preset subjects, and the multiple preset subjects include the target subject.

[0095] Optionally, the subject page presenting module is configured to: present a service aggregation page and present a first subject page of the target subject on an upper layer of the service aggregation page, in response to the trigger operation for the target message. A size of the first subject page is smaller than a size of the service aggregation page.

[0096] The apparatus may further include a first presenting module and/or a second presenting module.

[0097] The first presenting module is configured to, after presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page, switch from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting the service aggregation page in response to a second preset operation.

[0098] The second presenting module is configured to, after presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page, switch from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting a second subject page of the target subject in response to a third preset operation. A size of the second subject page is larger than the size of the subject page, and presentation content in the second subject page includes presentation content in the subject page.

[0099] Optionally, the first object information presenting module is configured to present the first object information of the first target object in a first area of the subject page.

[0100] The apparatus may further include a subject attribute presenting module.

[0101] The subject attribute presenting module is configured to present subject attribute information of the target subject in a fourth area of the subject page. The fourth area is located above the first area.

[0102] The information presentation apparatus provided by the embodiments of the present disclosure may perform the information presentation method provided by any embodiment of the present disclosure, and has corresponding functional modules and beneficial effects for performing the method.

[0103] It is worth noting that the 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.

[0104] Fig. 7 is a schematic structural diagram of an electronic device provided by an embodiment of the present disclosure. Reference is made to Fig. 7 below, which illustrates a schematic structural diagram of an electronic device (such as a terminal device or a server in Fig. 7) 700 suitable for implementing the

embodiments of the present disclosure. The terminal device in the embodiments of the present disclosure may include, but is not limited to, mobile terminals, such as a mobile phone, a laptop, a digital broadcast receiver, a personal digital assistant (PDA), a tablet computer (PAD), a portable multimedia player (PMP), and a vehicle-mounted terminal (such as a vehicle navigation terminal), and fixed terminals, such as a digital TV and a desktop computer. The electronic device shown in Fig. 7 is only an example, and should not impose any limitation on the functions and the scope of use of the embodiments of the present disclosure.

[0105] As shown in Fig. 7, the electronic device 700 may include a processing apparatus (such as a central processing unit and a graphics processing unit) 701, which may perform various appropriate actions and processing according to a program stored in a read-only memory (ROM) 702 or a program loaded from a storage apparatus 708 into a random access memory (RAM) 703. The RAM 703 further stores various programs and data required for operations of the electronic device 700. The processing apparatus 701, the ROM 702, and the RAM 703 are connected to each other through a bus 704. An editing/output (I/O) interface 705 is also connected to the bus 704.

[0106] Usually, the following apparatuses may be connected to the I/O interface 705: an input apparatus 706, including, for example, a touch screen, a touchpad, a keyboard, a mouse, a camera, a microphone, an accelerometer, and a gyroscope; an output apparatus 707, including, for example, a liquid crystal display (LCD), a speaker, and a vibrator; the storage apparatus 708, including, for example, a magnetic tape and a hard disk; and a communication apparatus 709. The communication apparatus 709 may allow the electronic device 700 to perform wireless or wired communication with other devices to exchange data. Although Fig. 7 shows the electronic device 700 having various apparatuses, it should be understood that not all of the apparatuses shown here need to be implemented or provided. Alternatively, more or fewer apparatuses may be implemented or provided.

[0107] According to the embodiments of the present disclosure, the process described above with reference to the flowchart may be implemented as a computer software program. For example, the embodiments of the present disclosure include a computer program product, which includes a computer program carried on a non-transitory computer-readable medium, where the computer program includes program code for performing the method shown in the flowchart. In such an embodiment, the computer program may be downloaded and installed from a network through the communication apparatus 709, or installed from the storage apparatus 708, or installed from the ROM 702. When the computer program is executed by the processing apparatus 701, the above functions defined in the method of the embodiments of the present disclosure are executed.

[0108] The names of messages or information exchanged between multiple apparatuses in the implementations of the present disclosure are only for illustrative purposes, and are not intended to limit the scope of these messages or information.

- [0109] The electronic device provided by the embodiments of the present disclosure belongs to the same inventive concept as the information presentation method provided by the above embodiments, and for technical details not described in detail in this embodiment, reference may be made to the above embodiments, and this embodiment has the same beneficial effects as the above embodiments.
- [0110] An embodiment of the present disclosure provides a computer storage medium having a computer program stored thereon, where the information presentation method provided by the above embodiments is implemented when the program is executed by a processor.
- [0111] An embodiment of the present disclosure provides a computer program product, including a computer program, where the information presentation method provided by the above embodiments is implemented when the program is executed by a processor.
- [0112] 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 thereof. The computer-readable storage medium may be, for example, but is not limited to, an electrical, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or any combination thereof. 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 disk read-only memory (CD-ROM), an optical storage device, a magnetic storage device, or any suitable combination thereof. 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 used 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 in the data signal. The data signal propagated in this way may be in multiple forms, and includes, but is not limited to, an electromagnetic signal, an optical signal, or any suitable combination thereof. 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 a program used by or in combination with an instruction execution system, apparatus, or device. The program code contained on the computer-readable medium may be transmitted in any suitable medium, including, but not limited to, a wire, an optical cable, a radio frequency (RF), or any suitable combination thereof.
- [0113] The above computer-readable medium may be included in the above electronic device, or may exist alone without being assembled into the electronic device.
- [0114] The above computer-readable medium carries one or more programs, and when the one or more programs are executed by the electronic device, the electronic device: presents a subject page of a target subject in response to a trigger operation for a target message, where the target message includes target

service information of a first target object, the first target object is at least one of objects provided by the target subject, and the subject page is configured for presenting object information of the objects provided by the target subject; and presents first object information of the first target object in the subject page, where the first object information includes at least information determined according to all or part of content of the target service information.

[0115] 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, where the above programming languages include, but are not limited to, object-oriented programming languages, such as Java, Smalltalk, and C++, and further include conventional procedural programming languages, such as "C" language or similar programming languages. The program code may be completely executed on a computer of a user, partially executed on a computer of a user, executed as an independent software package, partially executed on a computer of a user and partially executed on a remote computer, or completely executed on a remote computer or a server. In the case of involving the remote computer, the remote computer may be connected to a computer of a user through any kind of network, including a local area network (LAN) or a wide area network (WAN), or it may be connected to an external computer (for example, connected by using Internet provided by an Internet service provider).

[0116] The flowcharts and block diagrams in the drawings illustrate the possibly implemented architectures, functions, and operations of the system, the method, and the computer program product according to various embodiments of the present disclosure. In this regard, each block in the flowchart or block diagram may represent a module, 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 the 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.

[0117] The units involved in the embodiments of the present disclosure may be implemented by means of software, and may also be implemented by means of hardware. The name of a module does not constitute a limitation on the module itself under certain circumstances, for example, the first object information presenting module may also be described as "a module for presenting first object information of a first target object in a subject page, where the first object information includes at least information determined according to all or part of content of target service information".

[0118] The functions described above in the present disclosure may be performed at least partially by one or more hardware logic components. For example, without limitation, exemplary types of the

hardware logic components that may be used include: a field programmable gate array (FPGA), an application specific integrated circuit (ASIC), an application specific standard product (ASSP), a system on chip (SOC), a complex programmable logical device (CPLD), etc.

[0119] 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 may include an electrical connection based on one or more wires, a portable computer magnetic disk, a hard disk, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM or flash memory), an optical fiber, a portable compact disk read-only memory (CD-ROM), an optical storage device, a magnetic storage device, or any suitable combination of the above.

[0120] The above description is only the 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, without departing from the above disclosed concept, other technical solutions formed by any combination of the above technical features or their equivalent features. For example, a technical solution formed by replacing the above features with technical features with similar functions as the above features and being disclosed in the present disclosure (but not limited thereto) also falls within the scope of the present disclosure.

[0121] Furthermore, although various operations are depicted in a particular order, it should not be understood as requiring these operations to be performed in the particular order as shown or in a sequential order. Under certain circumstances, multitasking and parallel processing may be advantageous. Similarly, although several specific implementation details are included in the above discussions, these details should not be interpreted as limiting the scope of the present disclosure. Certain features described in the context of separate embodiments may also be implemented in combination in a single embodiment. Conversely, various features described in the context of a single embodiment may also be implemented in multiple embodiments individually or in any suitable sub-combination.

[0122] Although the present disclosure has been described in a 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. On the contrary, the specific features and actions described above are merely exemplary forms for implementing the claims.

CLAIMS

1. An information presentation method, comprising:
 - presenting a subject page of a target subject in response to a trigger operation for a target message, wherein the target message comprises target service information of a first target object, the first target object is at least one of objects provided by the target subject, and the subject page is configured for presenting object information of the objects provided by the target subject; and
 - presenting first object information of the first target object in the subject page, wherein the first object information comprises at least information determined according to all or part of content of the target service information.
2. The method of claim 1, wherein the presenting first object information of the first target object in the subject page, comprises:
 - presenting the first object information of the first target object in a first area of the subject page, and wherein the method further comprises:
 - presenting second object information of a second target object in a second area of the subject page, wherein the second target object is an object provided by the target subject, and the second area is located below the first area.
3. The method of claim 1 or 2, wherein the target service information comprises service prompt information, and the service prompt information is configured for prompting preset service attribute information and/or preset service attribute change information of the first target object.
4. The method of any one of claims 1 to 3, wherein a presentation condition of the target message comprises:
 - a historical interaction operation for the first target object comprises an interaction operation belonging to a preset interaction type; and/or
 - the preset service attribute information of the first target object satisfies a first preset condition and/or the preset service attribute change information of the first target object satisfies a second preset condition.
5. The method of claim 2, wherein the second target object is determined based on an association degree with the first target object, and
 - wherein the association degree is determined based on at least one of:
 - a similarity degree between the second target object and the first target object; or
 - a matching degree between the second target object and the first target object.

6. The method of claim 1, wherein the presenting first object information of the first target object in the subject page, comprises:

presenting the first object information of the first target object in a first area of the subject page, wherein the information presentation method further comprises:

presenting a first preset control corresponding to the first target object in the first area, and wherein the information presentation method further comprises:

presenting a first preset page in response to a trigger operation for a first sub-area in the first area, and presenting detailed information of the first target object in the first preset page, wherein the first sub-area comprises a presentation area of the first object information; and/or

presenting a second preset page in response to a trigger operation for a second sub-area in the first area, wherein the second sub-area comprises a presentation area of the first preset control, the second preset page is configured for receiving a preset interaction operation for the first target object, and the preset interaction operation is configured for acquiring the first target object.

7. The method of claim 2 or 5, wherein the first object information comprises first-type object information and second-type object information, and the second object information comprises the first-type object information, wherein the first-type object information comprises object attribute information, the second-type object information is information determined according to all or part of the content of the target service information, the target service information comprises service prompt information, and the service prompt information is configured for prompting preset service attribute information and/or preset service attribute change information of the first target object.

8. The method of claim 2, 5 or 7, further comprising:

presenting at least one second preset control in a third area of the subject page, wherein the third area is adjacent to the second area, and the second preset control is configured for filtering and/or sorting the second object information presented in the second area.

9. The method of any one of claims 1 to 8, wherein

the presenting a subject page of a target subject in response to a trigger operation for a target message, comprises:

presenting a service aggregation page and a first subject page of the target subject in response to the trigger operation for the target message, wherein the first subject page belongs to the subject page, the service aggregation page comprises at least one service function entrance corresponding to multiple preset subjects, and the multiple preset subjects comprise the target subject,

or

after the presenting first object information of the first target object in the subject page, the method further comprises:

presenting a service aggregation page in response to a first preset operation for the subject page, wherein the service aggregation page comprises at least one service function entrance corresponding to multiple preset subjects, and the multiple preset subjects comprise the target subject.

10. The method of claim 9, wherein the presenting a service aggregation page and a first subject page of the target subject in response to the trigger operation for the target message, comprises:

presenting the service aggregation page and presenting the first subject page of the target subject on an upper layer of the service aggregation page in response to the trigger operation for the target message, wherein a size of the first subject page is smaller than a size of the service aggregation page, and

wherein, after the presenting the service aggregation page and presenting the first subject page of the target subject on an upper layer of the service aggregation page, the method further comprises:

switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting the service aggregation page, in response to a second preset operation; and/or

switching from presenting the service aggregation page and presenting the first subject page of the target subject on the upper layer of the service aggregation page to presenting a second subject page of the target subject in response to a third preset operation, wherein a size of the second subject page is larger than the size of the subject page, and presentation content in the second subject page comprises presentation content in the subject page.

11. The method of any one of claims 1 to 10, wherein the presenting first object information of the first target object in the subject page, comprises:

presenting the first object information of the first target object in a first area of the subject page, and wherein the information presentation method further comprises:

presenting subject attribute information of the target subject in a fourth area of the subject page, wherein the fourth area is located above the first area.

12. An information presentation apparatus, comprising:

a subject page presenting module, configured to present a subject page of a target subject in response to a trigger operation for a target message, wherein the target message comprises target service information of a first target object, the first target object is at least one of objects provided by the target subject, and the subject page is configured for presenting object information of the objects provided by the target subject; and

a first object information presenting module, configured to present first object information of the first target object in the subject page, wherein the first object information comprises at least information determined according to all or part of content of the target service information.

13. 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 one of claims 1 to 11.

14. A storage medium comprising computer-executable instructions, wherein the computer-executable instructions are used for performing the information presentation method of any one of claims 1 to 11 when being executed by at least a computer processor.