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(54) **INTERACTIVE ELEMENTS WITH LABELS IN A USER INTERFACE**

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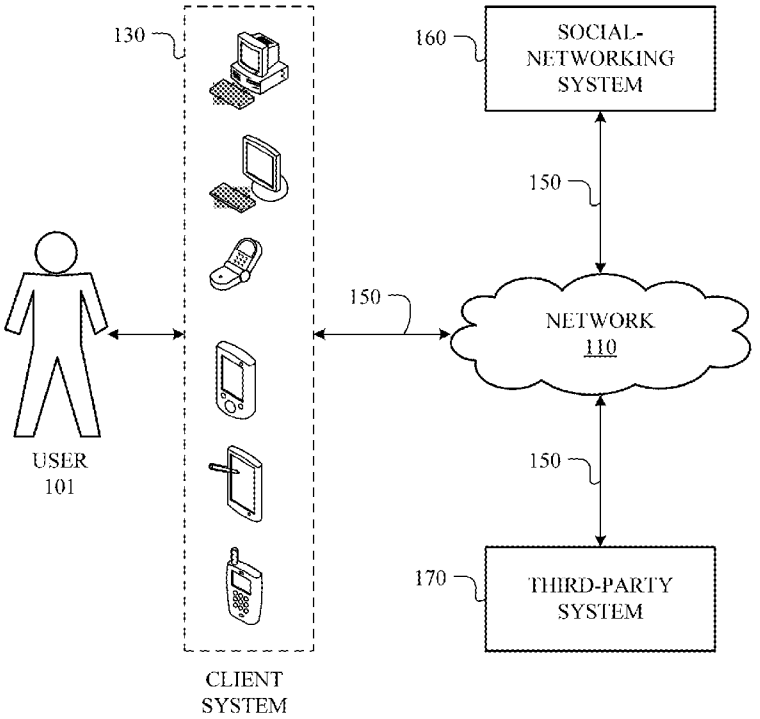
CPC *H04L 51/04* (2013.01)
USPC **715/758**; 715/751

(57) **ABSTRACT**

In particular embodiments, a computing device provides for presentation a first user interface including a first interactive element. The computing device receives first user input selecting the first interactive element and, in response to the first user input, provides for presentation multiple second interactive elements, each of the second interactive elements being presented with an associated label. The computing device receives a second user input selecting one of the second interactive elements and, in response to the second user input, provides for presentation a second user interface.

100



APPLE EXHIBIT 1005

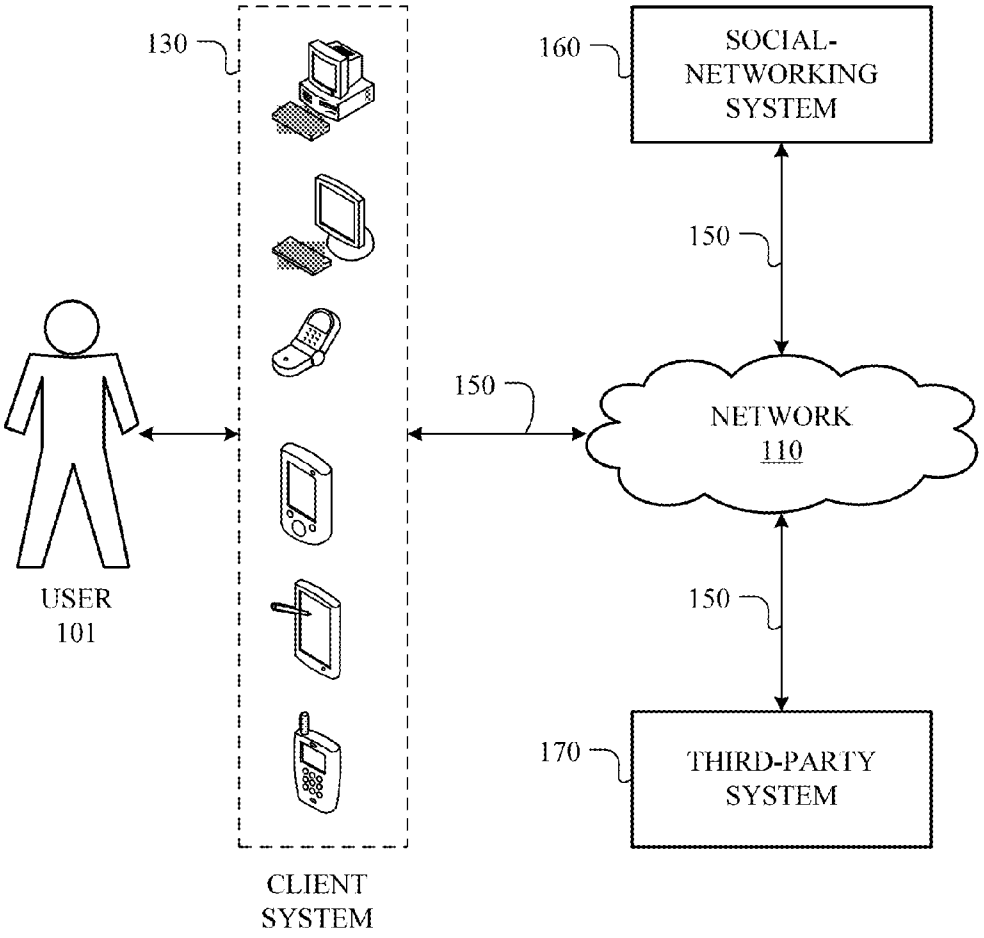

100
130
160
SOCIAL-NETWORKING SYSTEM
150
150
NETWORK 110
150
USER 101
170
THIRD-PARTY SYSTEM
CLIENT SYSTEM

FIG. 1

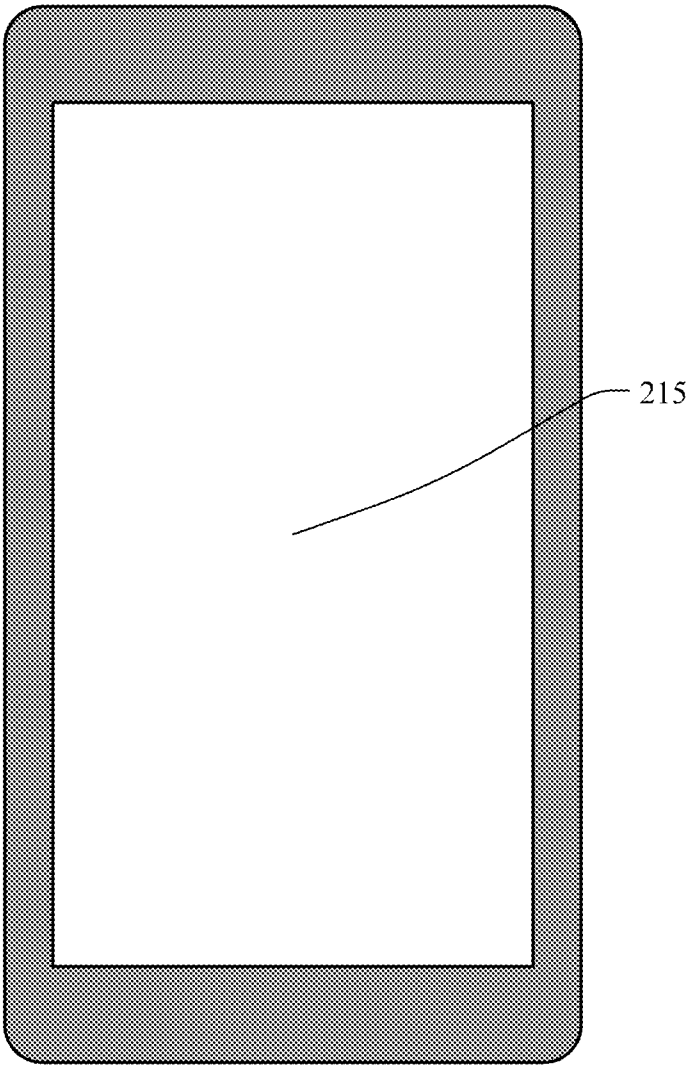


FIG. 2A

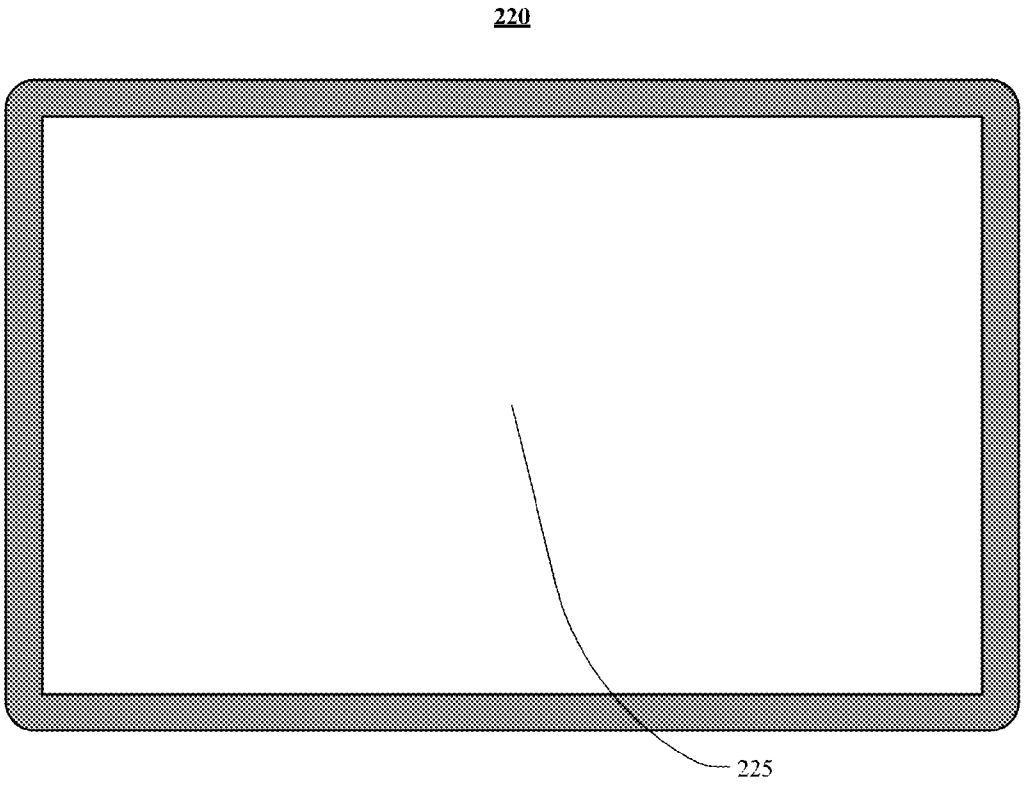


FIG. 2B

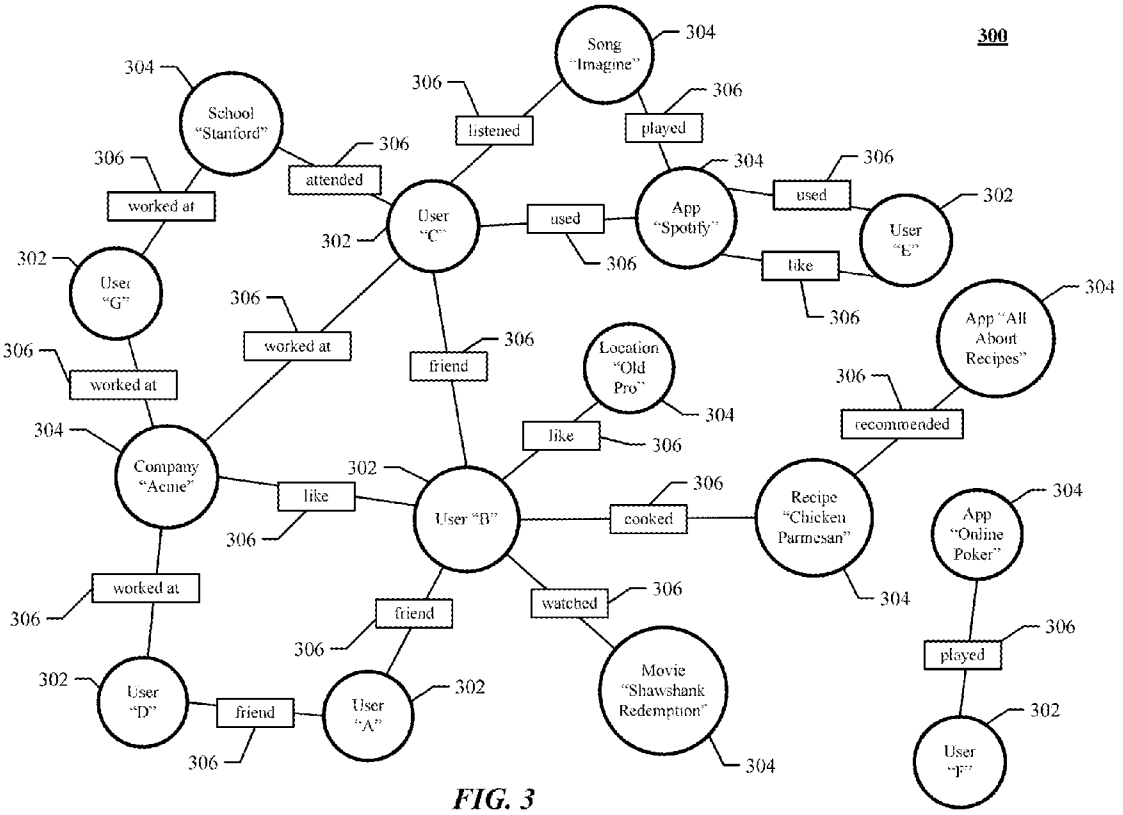

300
Song "Imagine"
304
306
listened
played
School "Stanford"
attended
worked at
User "C"
302
used
App "Spotify"
User "E"
like
User "G"
worked at
friend
Location "Old Pro"
App "All About Recipes"
recommended
Company "Acme"
like
User "B"
cooked
Recipe "Chicken Parmesan"
App "Online Poker"
watched
Movie "Shawshank Redemption"
played
User "D"
User "A"
User "F"

FIG. 3

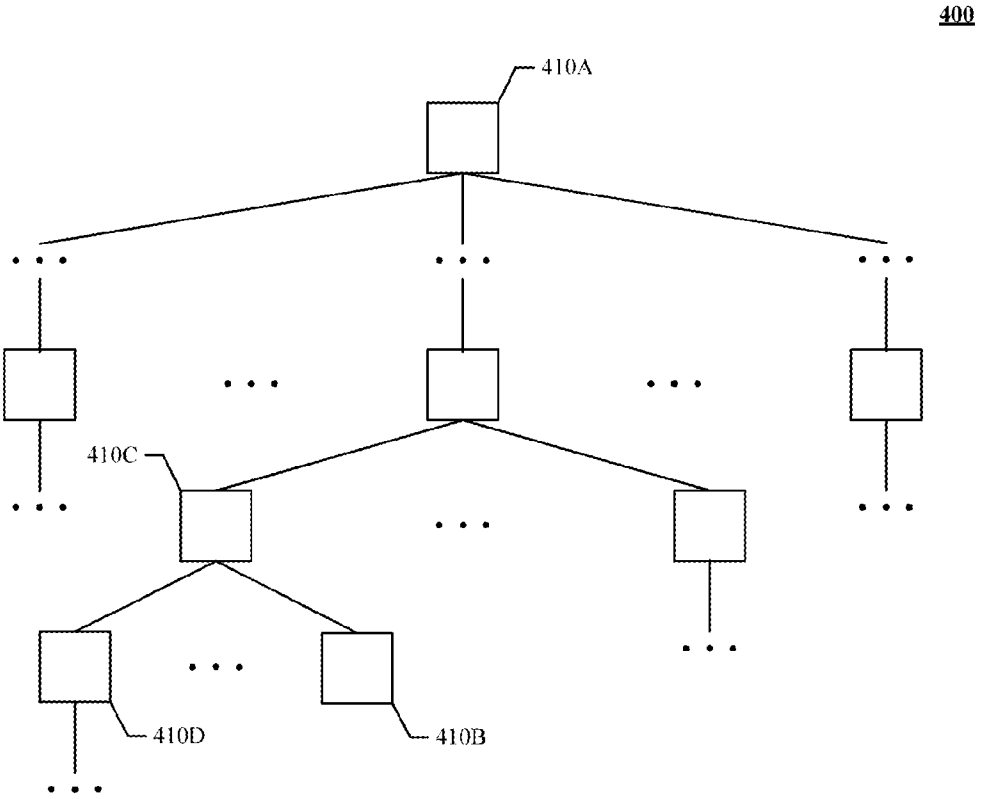


FIG. 4

1:39
500
502
501
503
Mike, Drew
and 8 other friends like
Tom's photo...

FIG. 5A

FIG. 5B

500
501
502
503
Mike, Drew
and 8 other friends like
Tom's photo...
510
511
512
513
514

FIG. 5C

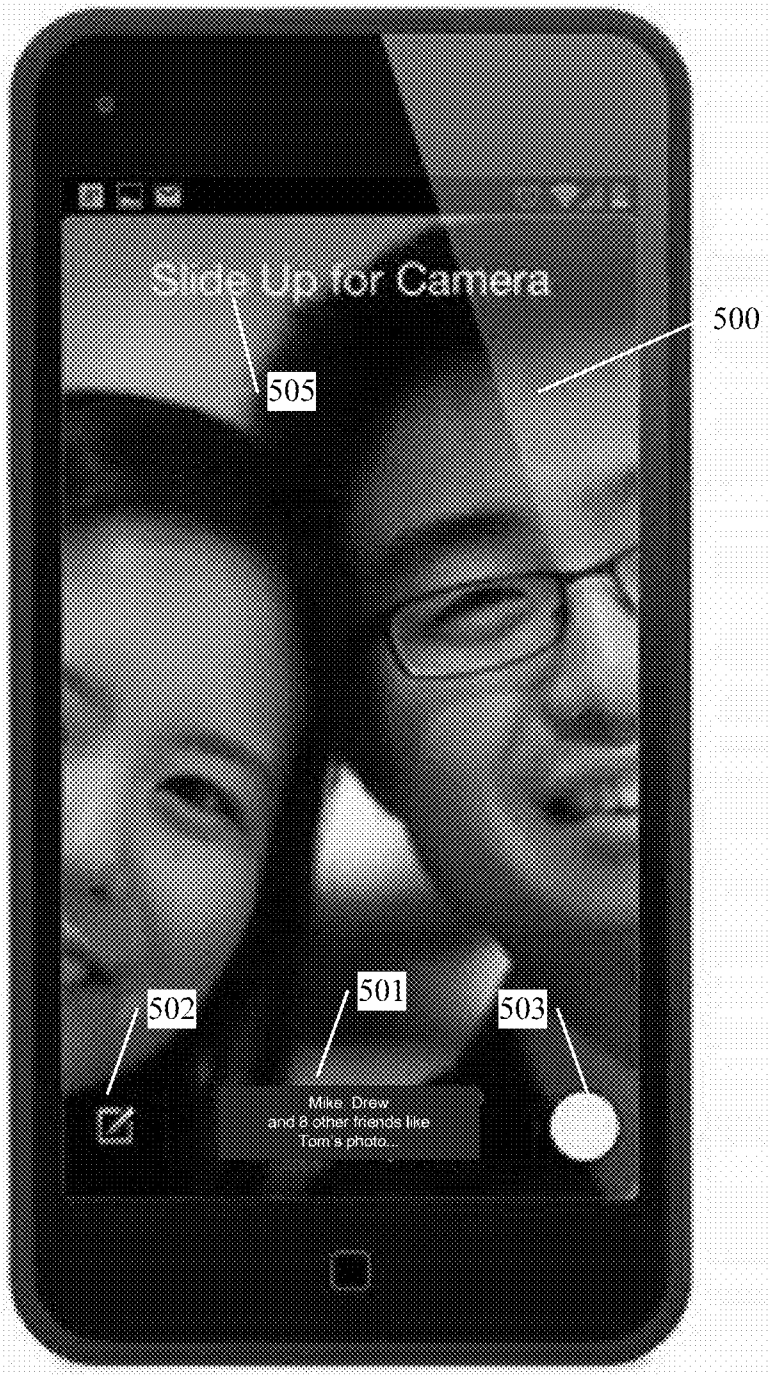

Slide Up for Camera
500
505
502
501
503
Mike, Drew
and 8 other friends like
Tom's photo...

FIG. 5D

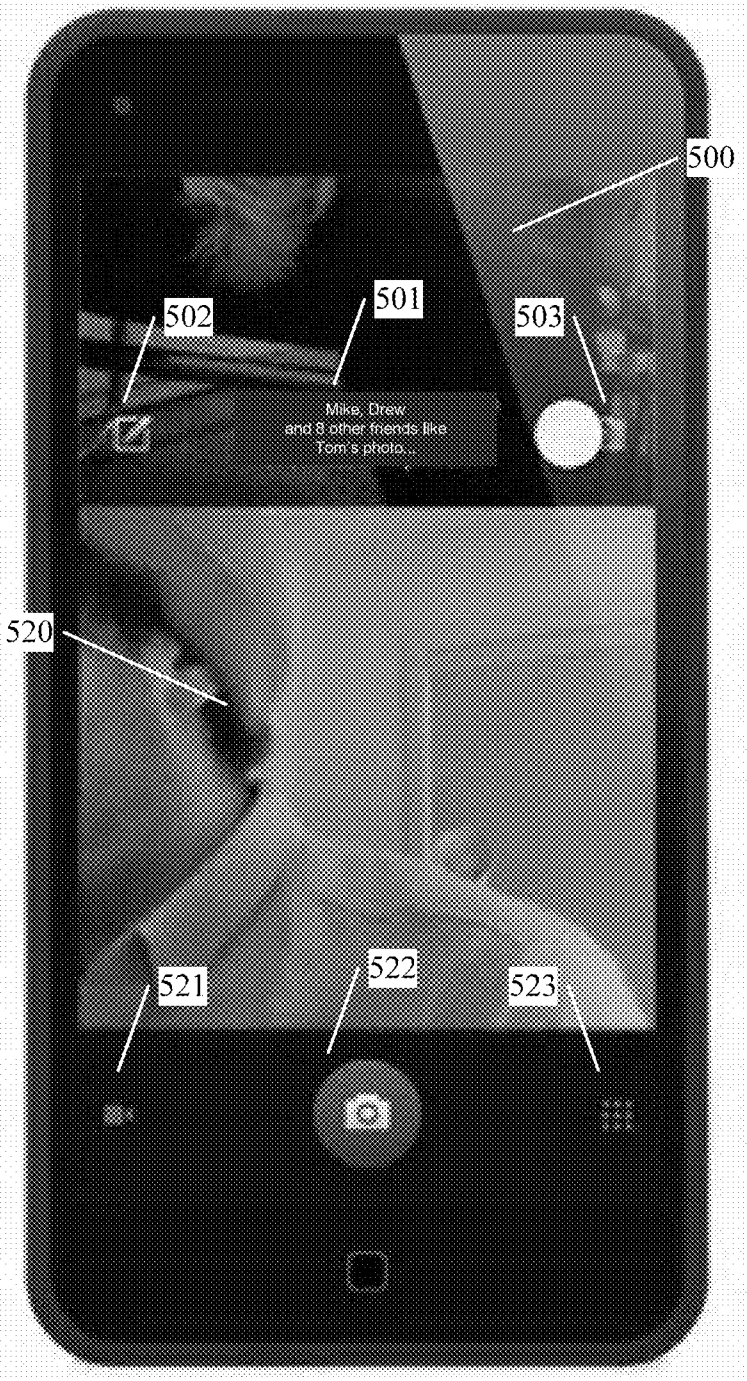

500
501
502
503
Mike, Drew
and 8 other friends like
Tom's photo...
520
521
522
523

FIG. 5E

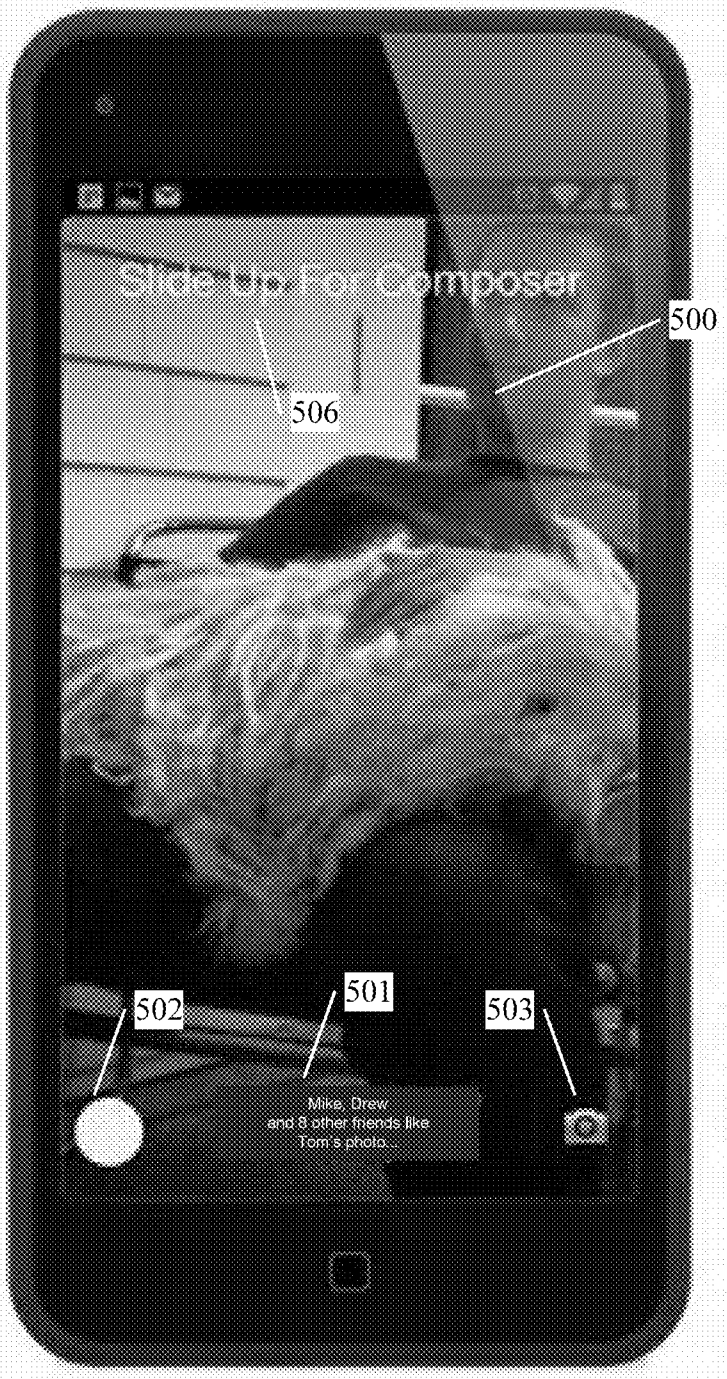

500
506
502
501
503
Mike, Drew
and 8 other friends like
Tom's photo...

FIG. 5F

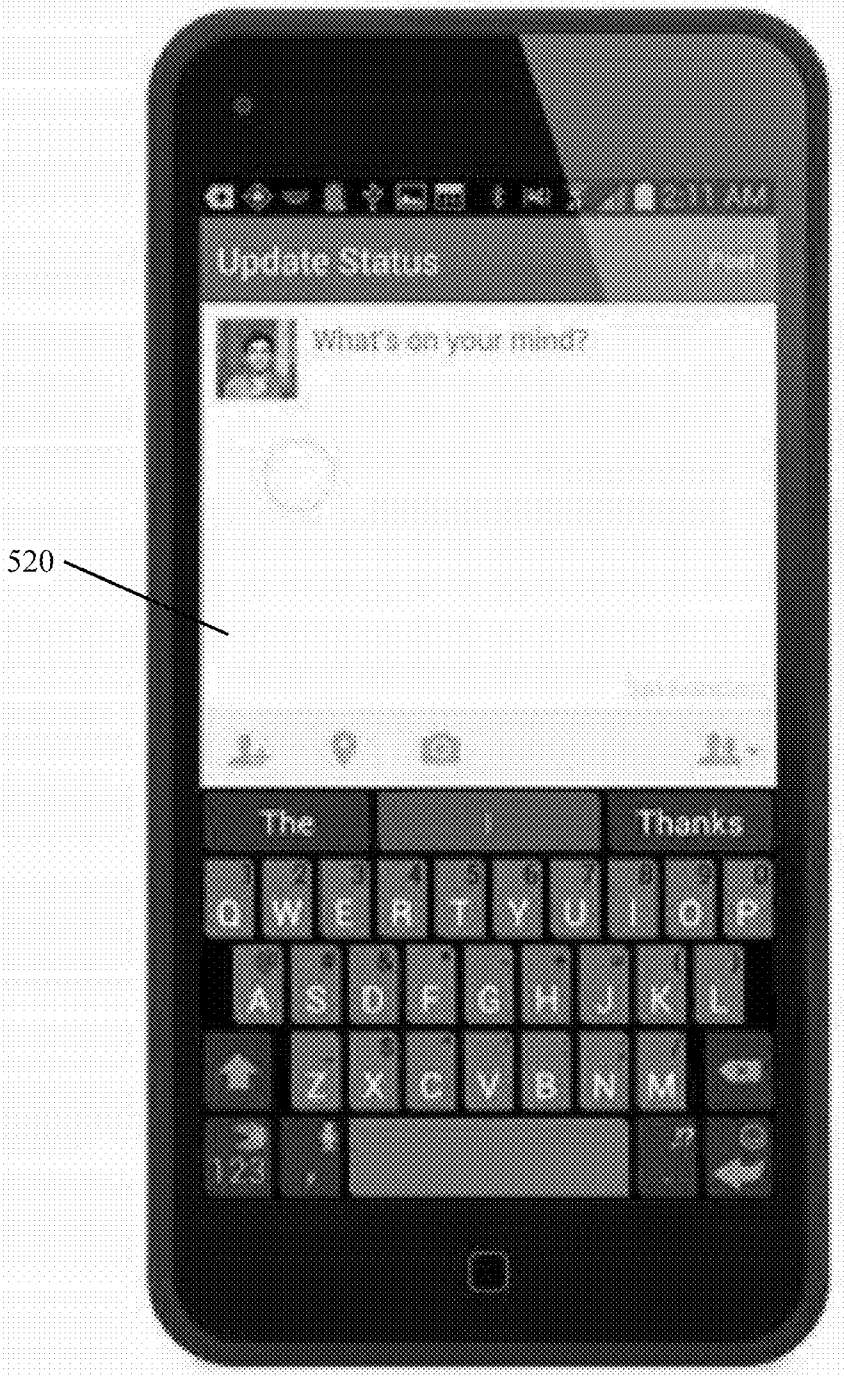


FIG. 5G

FIG. 5H

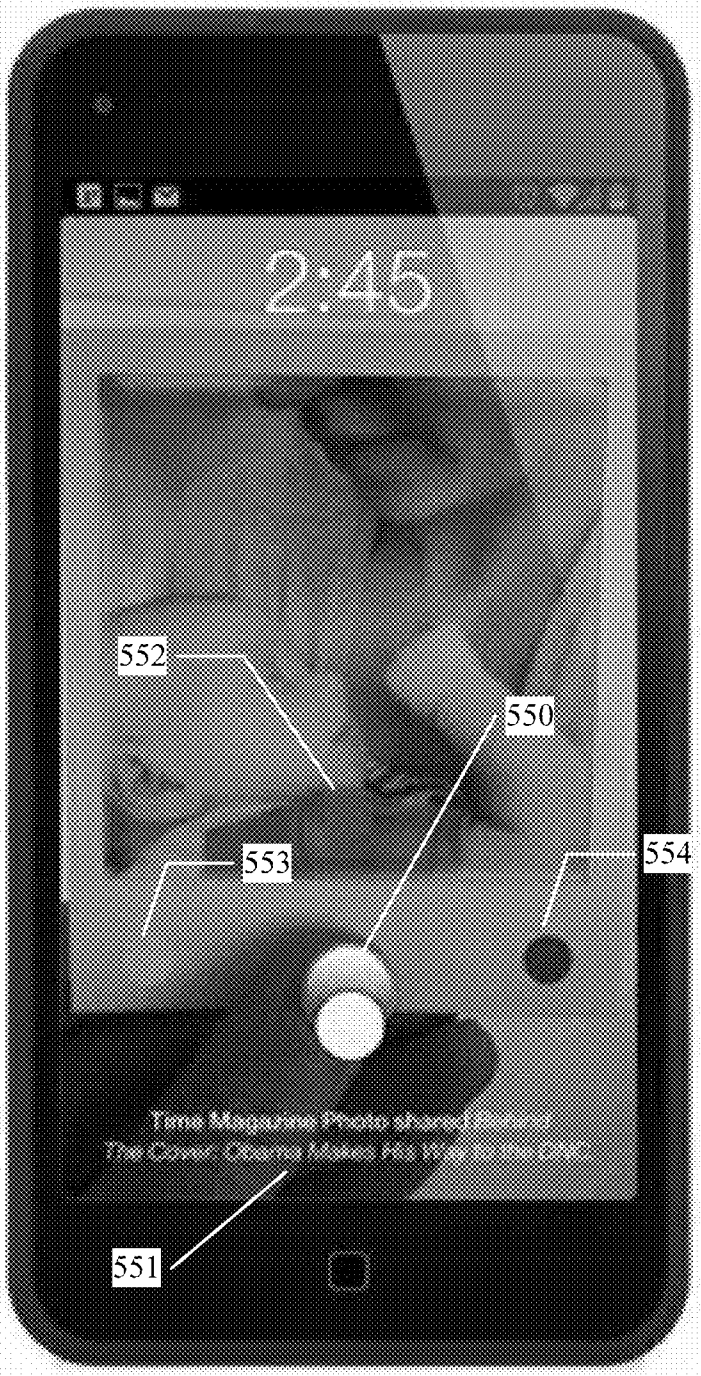


FIG. 5I

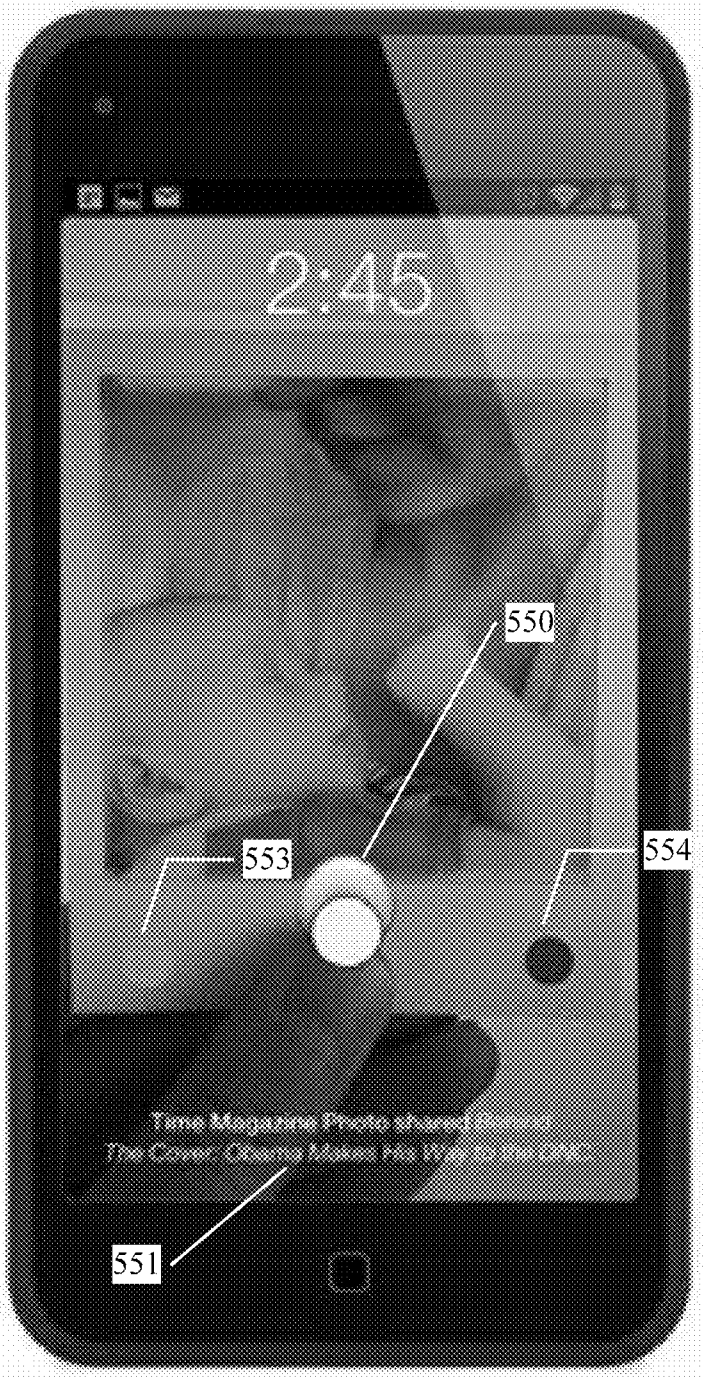


FIG. 5J

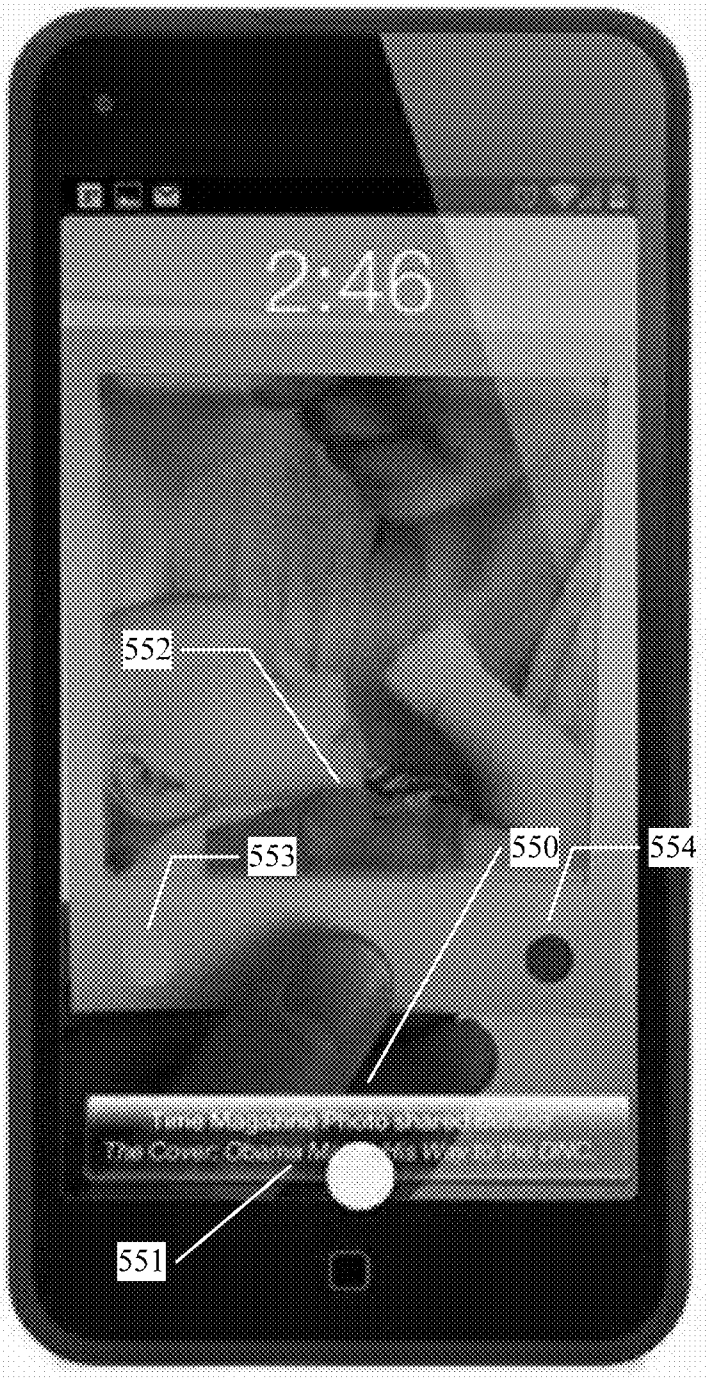


FIG. 5K

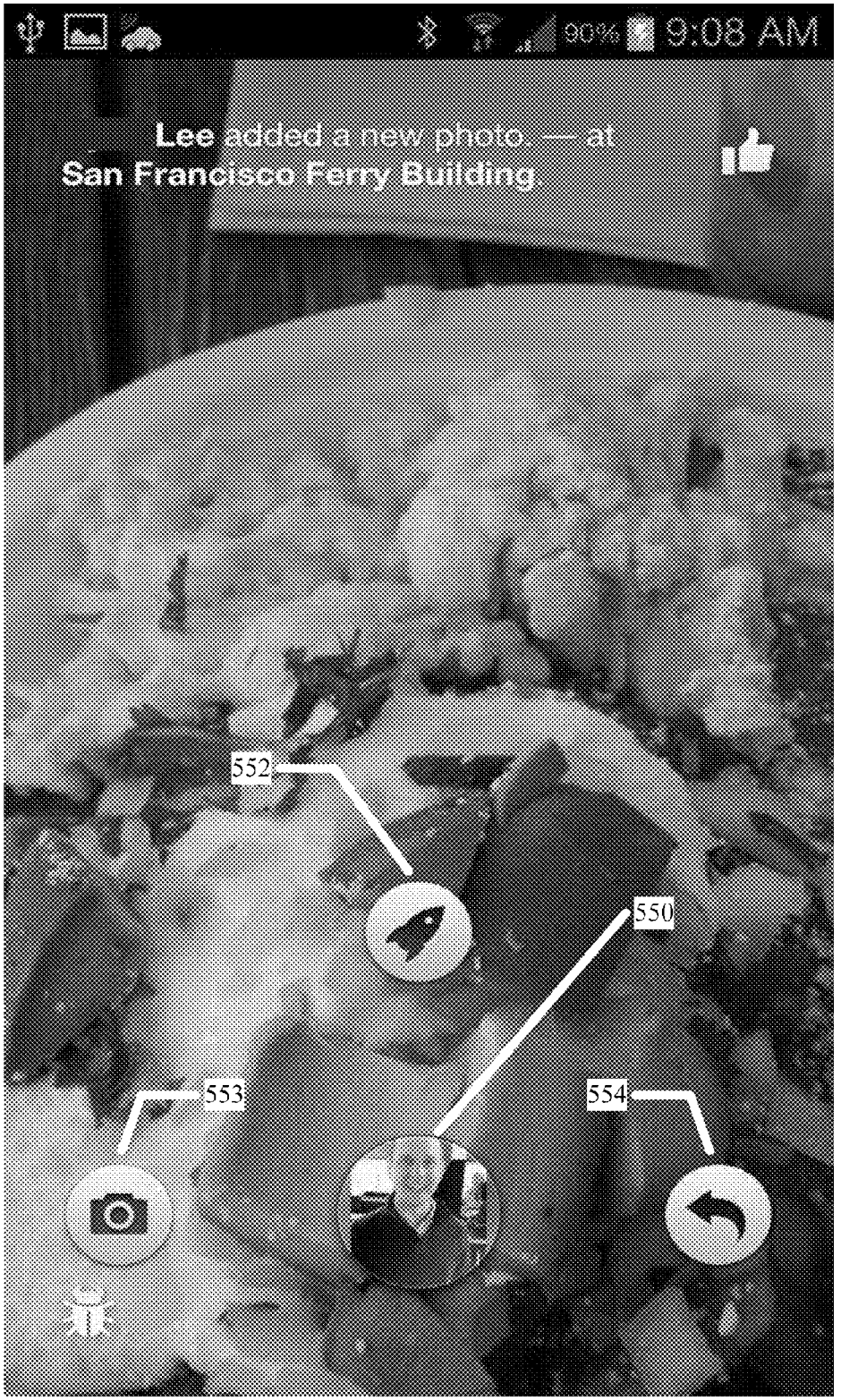

90%
9:08 AM
Lee added a new photo. — at
San Francisco Ferry Building.
552
550
553
554

FIG. 5L

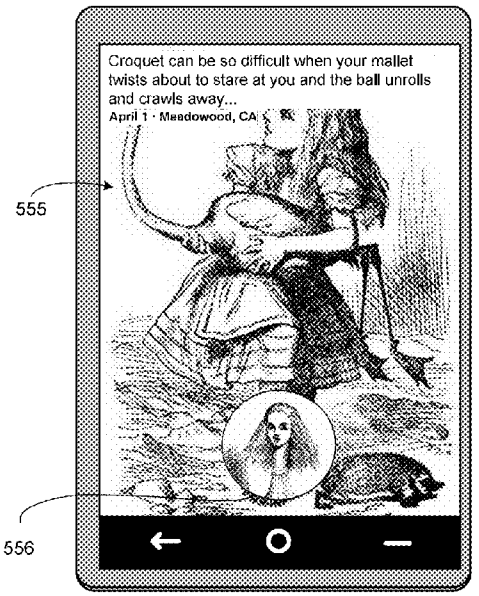

Croquet can be so difficult when your mallet twists about to stare at you and the ball unrolls and crawls away...
April 1 · Meadowood, CA
555
556

FIG. 5M

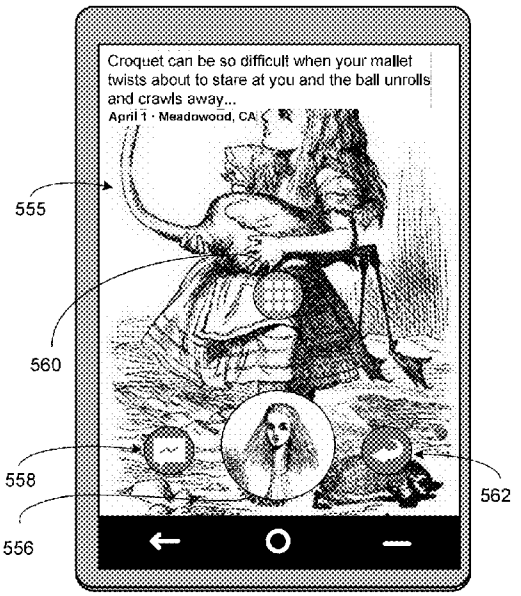

Croquet can be so difficult when your mallet twists about to stare at you and the ball unrolls and crawls away...
April 1 · Meadowood, CA
555
560
558
556
562

FIG. 5N

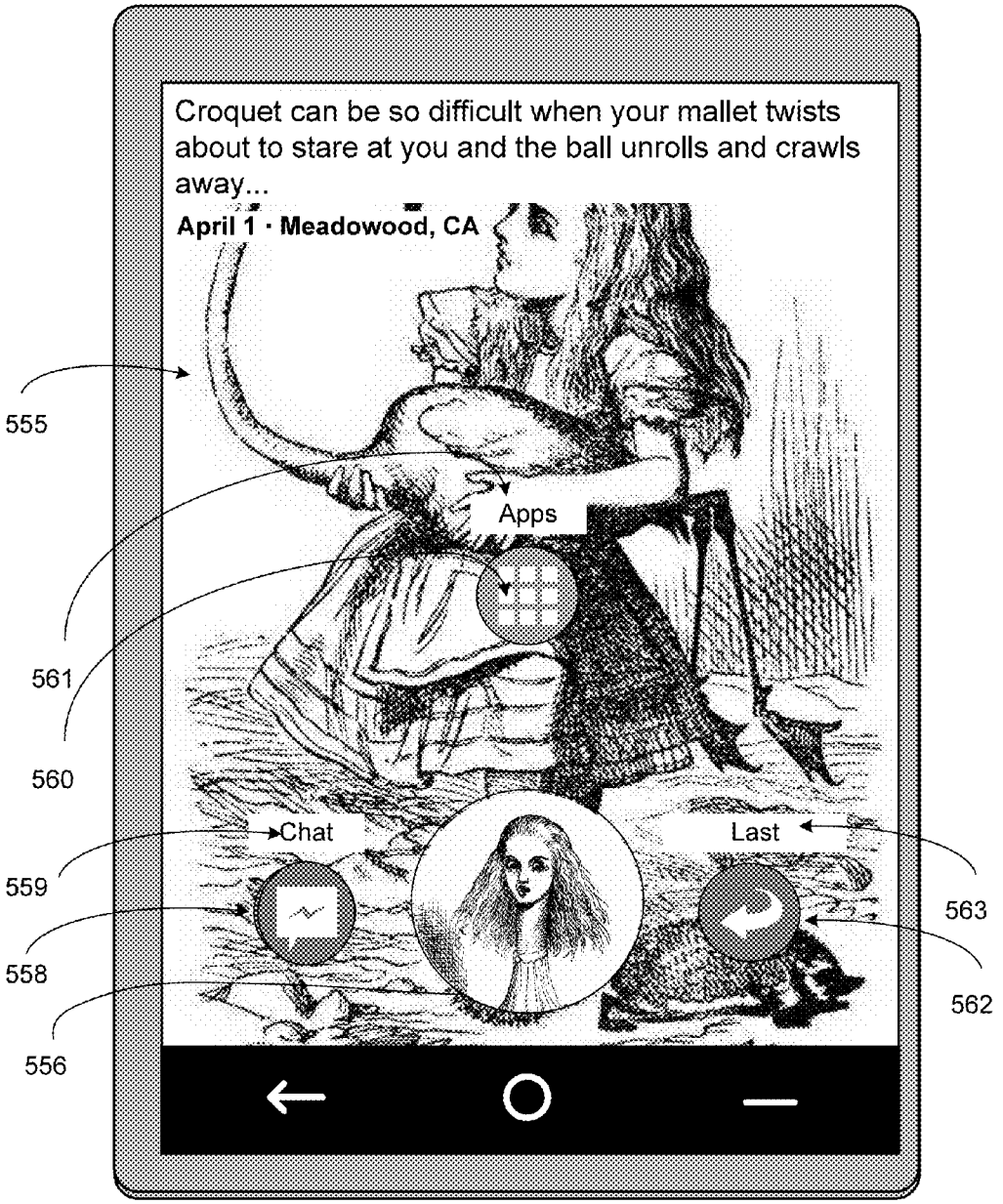

Croquet can be so difficult when your mallet twists about to stare at you and the ball unrolls and crawls away...
April 1 · Meadowood, CA
Apps
Chat
Last
555
561
560
559
558
556
563
562

FIG. 5P

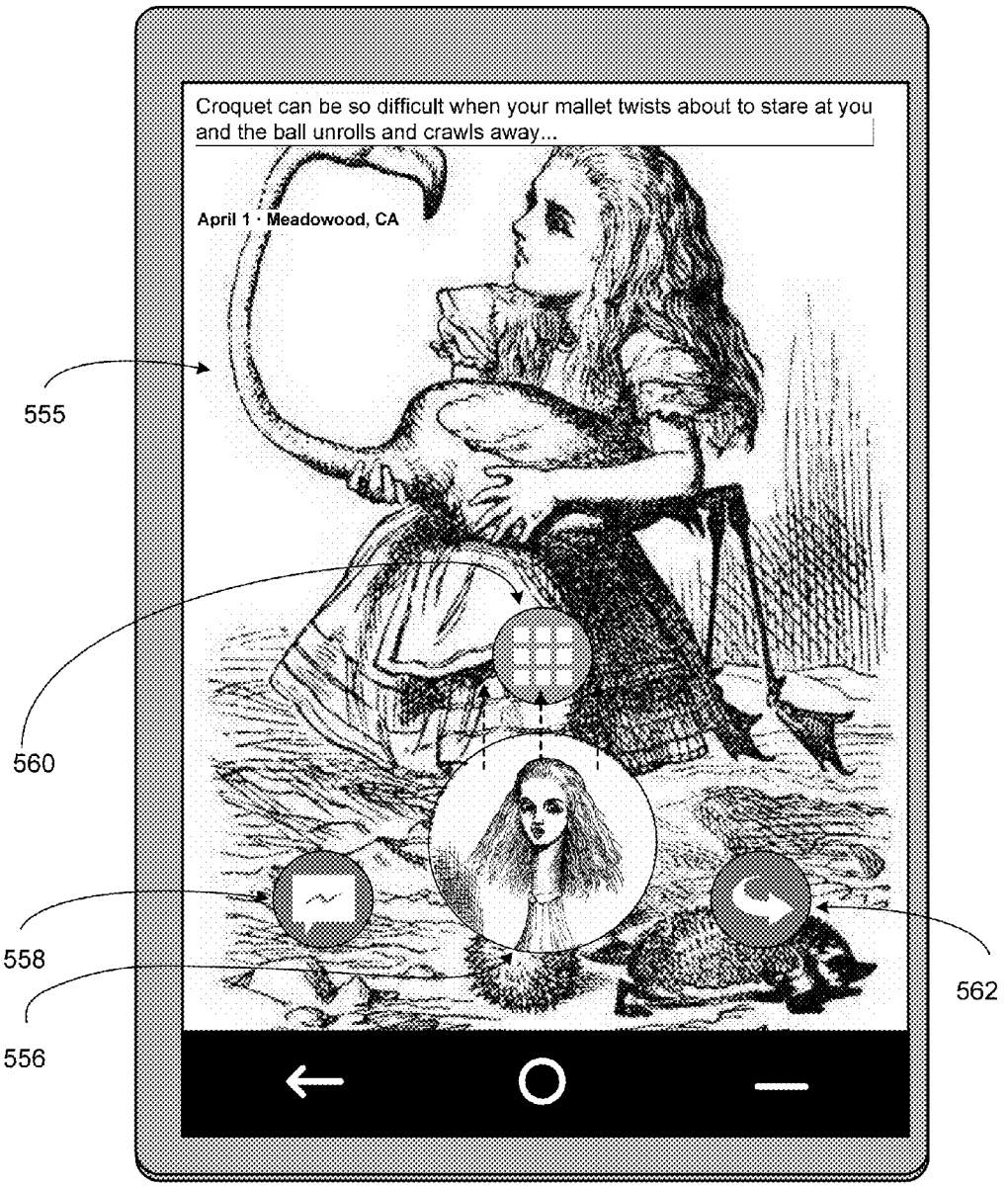

Croquet can be so difficult when your mallet twists about to stare at you and the ball unrolls and crawls away...
April 1 · Meadowood, CA
555
560
558
556
562

FIG. 5Q

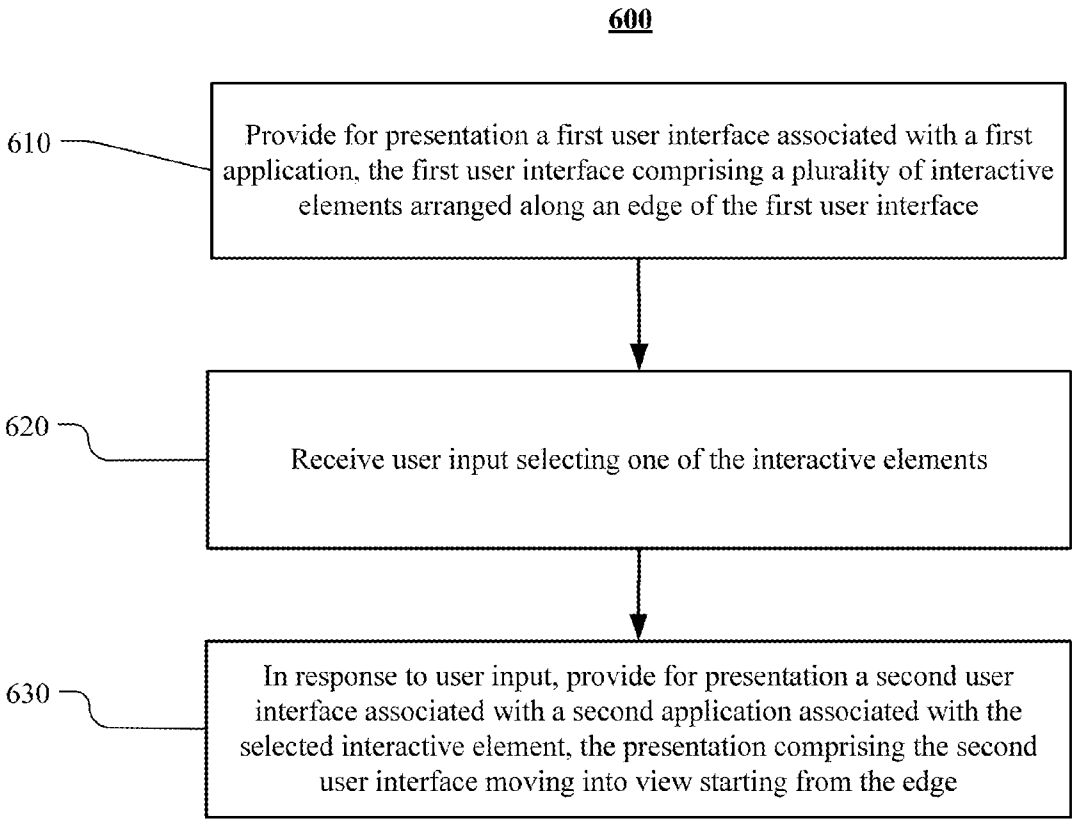

600
610
Provide for presentation a first user interface associated with a first application, the first user interface comprising a plurality of interactive elements arranged along an edge of the first user interface
620
Receive user input selecting one of the interactive elements
630
In response to user input, provide for presentation a second user interface associated with a second application associated with the selected interactive element, the presentation comprising the second user interface moving into view starting from the edge

FIG. 6A

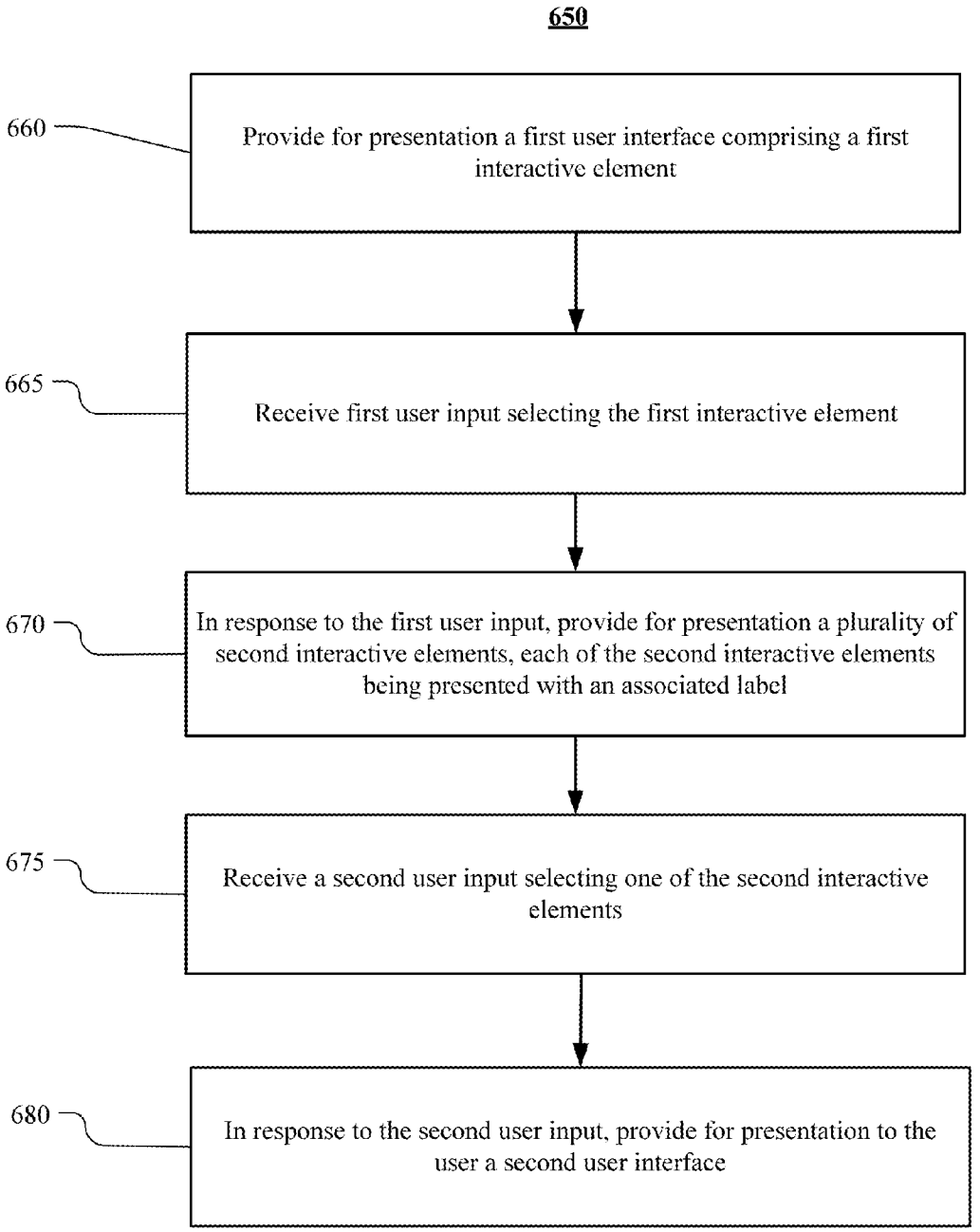

650
660
Provide for presentation a first user interface comprising a first interactive element
665
Receive first user input selecting the first interactive element
670
In response to the first user input, provide for presentation a plurality of second interactive elements, each of the second interactive elements being presented with an associated label
675
Receive a second user input selecting one of the second interactive elements
680
In response to the second user input, provide for presentation to the user a second user interface

FIG. 6B

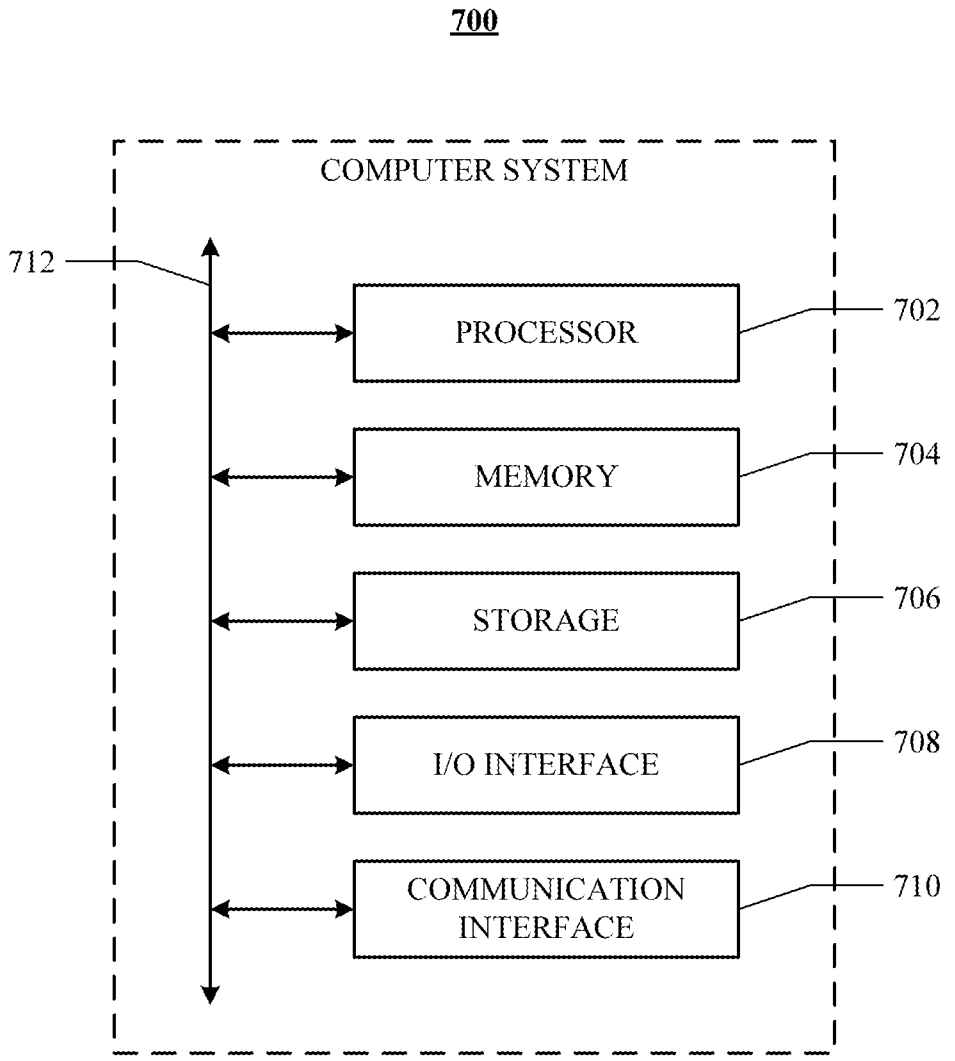

700
COMPUTER SYSTEM
712
PROCESSOR
702
MEMORY
704
STORAGE
706
I/O INTERFACE
708
COMMUNICATION INTERFACE
710

FIG. 7

INTERACTIVE ELEMENTS WITH LABELS IN A USER INTERFACE

PRIORITY

[0001] This application is a continuation-in-part under 35 U.S.C. §120 of U.S. patent application Ser. No. 13/842,316, filed 15 Mar. 2013, which is incorporated herein by reference.

TECHNICAL FIELD

[0002] This disclosure generally relates to a user interface.

BACKGROUND

[0003] A user interface (UI), in the industrial design field of human-machine interaction, is the space where interactions between humans and machines occur. The goal of the interactions between a human, often referred to as a "user", and a machine at the user interface is the user's control of the machine and its operations (e.g., through user input) and machine feedback (e.g., through program output). A graphical user interface (GUI) is a type of user interface that allows users to interact with software applications executing on electronic or computing devices through multimedia objects (e.g., images, videos, audios, etc.) rather than purely text commands.

SUMMARY OF PARTICULAR EMBODIMENTS

[0004] In particular embodiments, a user interface including a first interactive element is provided for presentation to a user of a computing device. In response to user input (e.g., a touch gesture) selecting the first interactive element, multiple second interactive elements are provided for presentation to the user, each of the second interactive elements being presented with an associated label. The label may, for example, include text or images associated with the second interactive element. Each of the second interactive elements may also be associated with an application or a screen of an operating system of the computing device. In response to user input selecting one of the second interactive elements, a second user interface is provided for display to the user.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. **1** illustrates an example network environment associated with a social-networking system.

[0006] FIGS. **2**A and **2**B illustrate two example mobile electronic devices.

[0007] FIG. **3** illustrates an example social graph.

[0008] FIG. **4** illustrates an example object hierarchy.

[0009] FIGS. **5**A-**5**N, **5**P, and **5**Q illustrate example user interfaces with interactive elements.

[0010] FIG. **6**A illustrates an example method for selecting an interactive element.

[0011] FIG. **6**B illustrates an example method for selecting an interactive element.

[0012] FIG. **7** illustrates an example computer system.

DESCRIPTION OF EXAMPLE EMBODIMENTS

[0013] A user interface (UI) may be incorporated into any type of software applications, including, for example, desktop applications, mobile applications, or web-based applications, to enable users to interact with and control the applications. A graphical user interface (GUI) is a type of user interface that enables users to interact with software applications through multimedia objects, including, for example, icons, buttons, menus, images, video, or audios.

[0014] In particular embodiments, a software application may be associated with a social-networking system. FIG. **1** illustrates an example network environment **100** associated with a social-networking system. Network environment **100** includes a user **101**, a client system **130**, a social-networking system **160**, and a third-party system **170** connected to each other by a network **110**. Although FIG. **1** illustrates a particular arrangement of user **101**, client system **130**, social-networking system **160**, third-party system **170**, and network **110**, this disclosure contemplates any suitable arrangement of user **101**, client system **130**, social-networking system **160**, third-party system **170**, and network **110**. As an example and not by way of limitation, two or more of client system **130**, social-networking system **160**, and third-party system **170** may be connected to each other directly, bypassing network **110**. As another example, two or more of client system **130**, social-networking system **160**, and third-party system **170** may be physically or logically co-located with each other in whole or in part. Moreover, although FIG. **1** illustrates a particular number of users **101**, client systems **130**, social-networking systems **160**, third-party systems **170**, and networks **110**, this disclosure contemplates any suitable number of users **101**, client systems **130**, social-networking systems **160**, third-party systems **170**, and networks **110**. As an example and not by way of limitation, network environment **100** may include multiple users **101**, client system **130**, social-networking systems **160**, third-party systems **170**, and networks **110**.

[0015] In particular embodiments, user **101** may be an individual (human user), an entity (e.g., an enterprise, business, or third-party application), or a group (e.g., of individuals or entities) that interacts or communicates with or over social-networking system **160**. In particular embodiments, social-networking system **160** may be a network-addressable computing system hosting an online social network. Social-networking system **160** may generate, store, receive, and transmit social-networking data, such as, for example, user-profile data, concept-profile data, social-graph information, or other suitable data related to the online social network. Social-networking system **160** may be accessed by the other components of network environment **100** either directly or via network **110**. In particular embodiments, social-networking system **160** may include an authorization server that allows users **101** to opt in or opt out of having their actions logged by social-networking system **160** or shared with other systems (e.g., third-party systems **170**), such as, for example, by setting appropriate privacy settings. In particular embodiments, third-party system **170** may be a network-addressable computing system that can host various third-party software applications (e.g., web-based applications). Third-party system **170** may generate, store, receive, and transmit various types of data, such as, for example, texts, images, videos, or audios. Third-party system **170** may be accessed by the other components of network environment **100** either directly or via network **110**. In particular embodiments, one or more users **101** may use one or more client systems **130** to access, send data to, and receive data from social-networking system **160** or third-party system **170**. Client system **130** may access social-networking system **160** or third-party system **170** directly, via network **110**, or via a third-party system. As an example and not by way of limitation, client system **130** may access third-party system **170** via social-networking system

160. Client system **130** may be any suitable computing device, such as, for example, a personal computer, a laptop computer, a cellular telephone, a smartphone, or a tablet computer.

[0016] This disclosure contemplates any suitable network **110**. As an example and not by way of limitation, one or more portions of network **110** may include an ad hoc network, an intranet, an extranet, a virtual private network (VPN), a local area network (LAN), a wireless LAN (WLAN), a wide area network (WAN), a wireless WAN (WWAN), a metropolitan area network (MAN), a portion of the Internet, a portion of the Public Switched Telephone Network (PSTN), a cellular telephone network, or a combination of two or more of these. Network **110** may include one or more networks **110**.

[0017] Links **150** may connect client system **130**, social-networking system **160**, and third-party system **170** to communication network **110** or to each other. This disclosure contemplates any suitable links **150**. In particular embodiments, one or more links **150** include one or more wireline (such as for example Digital Subscriber Line (DSL) or Data Over Cable Service Interface Specification (DOCSIS)), wireless (such as for example Wi-Fi or Worldwide Interoperability for Microwave Access (WiMAX)), or optical (such as for example Synchronous Optical Network (SONET) or Synchronous Digital Hierarchy (SDH)) links. In particular embodiments, one or more links **150** each include an ad hoc network, an intranet, an extranet, a VPN, a LAN, a WLAN, a WAN, a WWAN, a MAN, a portion of the Internet, a portion of the PSTN, a cellular technology-based network, a satellite communications technology-based network, another link **150**, or a combination of two or more such links **150**. Links **150** need not necessarily be the same throughout network environment **100**. One or more first links **150** may differ in one or more respects from one or more second links **150**.

[0018] In particular embodiments, data (e.g., data representing various types of information or content) may be sent between servers associated with social-networking system **160** and individual client systems **130** via network **110**. When two electronic devices (e.g., a server and a client) are connected to a network (e.g., a computer or communications network, such as network **110**), data may be transmitted between the two devices over the network using one or more suitable network protocols. A network may include any number of sub-networks. By transmitting data between the two devices, the two devices may communicate with each other.

[0019] In network communications, there are two ways to send a communication (i.e., data) from one device to another device: push and pull. With push technology, the request for the communication transaction is initiated by the sending device. That is, the sending device "pushes" the communication, so to speak, to the receiving device. In this case, the sending device may be considered the active party and the receiving device may be considered the passive party in the transaction. In contrast, with pull technology, the request for the communication transaction is initiated by the receiving device. That is, the receiving device "pulls" the communication, so to speak, from the sending device. In this case, the sending device may be considered the passive party and the receiving device may be considered the active party in the transaction. In particular embodiments, a server associated with social-networking system **160** may push data to a client system **130**. A communication pushed from a server to a client may be referred to as a "push notification". Similarly, a client system **130** may push data to a server associated with social-networking system **160**.

[0020] In particular embodiments, a client system **130** may be a mobile electronic or computing device. A mobile electronic device—such as a Smartphone, tablet computer, or laptop computer—may include functionality for determining its location, direction, or orientation, such as a GPS receiver, compass, or gyroscope. Such a mobile device may also include functionality for wireless communication, such as BLUETOOTH communication, near-field communication (NFC), or infrared (IR) communication or communication with wireless local area networks (WLANs) or cellular-telephone network. Such a mobile device may also include one or more cameras, scanners, touchscreens, microphones, or speakers. Mobile electronic devices may also execute software applications, such as games, web browsers, or social-networking applications. With social-networking applications, users may connect, communicate, and share information with other users in their social networks.

[0021] In particular embodiments, a mobile electronic device (e.g., Smartphone or tablet computer) may include a touchscreen capable of receiving touch input. FIG. **2**A illustrates an example mobile electronic device **210** (e.g., a Smartphone) having a touchscreen **215**. Touchscreen **215** may incorporate one or more touch sensors and a touch-sensor controller for detecting the presence and location of a touch (e.g., from a user's finger) or the proximity of an object (e.g., a stylus). In particular embodiments, a specific touch detected via touchscreen **215** may result in a touch input event.

[0022] Different mobile electronic devices may have different designs. As a result, the size, shape, or aspect ratio of the touchscreens of different mobile devices may differ. FIG. **2**B illustrates another example mobile electronic device **220** (e.g., a tablet computer) having a touchscreen **225**. Similarly, touchscreen **225** may incorporate one or more touch sensors and a touch-sensor controller for detecting the presence and location of a touch (e.g., from a user's finger) or the proximity of an object (e.g., a stylus). A specific touch detected via touchscreen **225** may result in a touch input event. However, since mobile electronic devices **210** and **220** are two different types of devices, their respective touchscreen **215** and **225** have different sizes and aspect ratios.

[0023] There may be various types of touches or gestures, such as single tap, double tap, short press, long press, press and hold, slide, swipe, flip, pinch open, pinch close, pan, or drag, corresponding to various types of touch input events. Different touch input events may result in different responses and this disclosure contemplates any applicable gesture.

[0024] Social-networking system **160** may store various types of data including, for example, user data, application data, or social data. In particular embodiments, such data may be stored in a graph having any number of nodes and edges, where each edge connects two nodes. The graph is often referred to as a "social graph" or "open graph" as it contains, among others, social information.

[0025] FIG. **3** illustrates example social graph **300**. In particular embodiments, social-networking system **160** may store one or more social graphs **300** in one or more data stores. In particular embodiments, social graph **300** may include multiple nodes—which may include multiple user nodes **302** or multiple concept nodes **304**—and multiple edges **306** connecting the nodes. Example social graph **300** illustrated in FIG. **3** is shown, for didactic purposes, in a two-dimensional visual map representation. In particular embodiments, a

social-networking system **160**, client system **130**, or third-party system **170** may access social graph **300** and related social-graph information for suitable applications. The nodes and edges of social graph **300** may be stored as data objects, for example, in a data store (such as a social-graph database). Such a data store may include one or more searchable or queryable indexes of nodes or edges of social graph **300**.

[0026] In particular embodiments, a user node **302** may correspond to a user of social-networking system **160**. As an example and not by way of limitation, a user may be an individual (human user), an entity (e.g., an enterprise, business, or third-party application), or a group (e.g., of individuals or entities) that interacts or communicates with or over social-networking system **160**. In particular embodiments, when a user registers for an account with social-networking system **160**, social-networking system **160** may create a user node **302** corresponding to the user, and store the user node **302** in one or more data stores. Users and user nodes **302** described herein may, where appropriate, refer to registered users and user nodes **302** associated with registered users. In addition or as an alternative, users and user nodes **302** described herein may, where appropriate, refer to users that have not registered with social-networking system **160**. In particular embodiments, a user node **302** may be associated with information provided by a user or information gathered by various systems, including social-networking system **160**. As an example and not by way of limitation, a user may provide his or her name, profile picture, contact information, birth date, sex, marital status, family status, employment, education background, preferences, interests, or other demographic information. In particular embodiments, a user node **302** may be associated with one or more data objects corresponding to information associated with a user. In particular embodiments, a user node **302** may correspond to one or more webpages.

[0027] In particular embodiments, a concept node **304** may correspond to a concept. As an example and not by way of limitation, a concept may correspond to a place (such as, for example, a movie theater, restaurant, landmark, or city); a website (such as, for example, a website associated with social-network system **160** or a third-party website associated with a web-application server); an entity (such as, for example, a person, business, group, sports team, or celebrity); a resource (such as, for example, an audio file, video file, digital photo, text file, structured document, or application) which may be located within social-networking system **160** or on an external server, such as a web-application server; real or intellectual property (such as, for example, a sculpture, painting, movie, game, song, idea, photograph, or written work); a game; an activity; an idea or theory; another suitable concept; or two or more such concepts. A concept node **304** may be associated with information of a concept provided by a user or information gathered by various systems, including social-networking system **160**. As an example and not by way of limitation, information of a concept may include a name or a title; one or more images (e.g., an image of the cover page of a book); a location (e.g., an address or a geographical location); a website (which may be associated with a URL); contact information (e.g., a phone number or an email address); other suitable concept information; or any suitable combination of such information. In particular embodiments, a concept node **304** may be associated with one or more data objects corresponding to information associated with concept node **304**. In particular embodiments, a concept node **304** may correspond to one or more webpages.

[0028] In particular embodiments, a node in social graph **300** may represent or be represented by a webpage (which may be referred to as a "profile page"). Profile pages may be hosted by or accessible to social-networking system **160**. Profile pages may also be hosted on third-party websites associated with a third-party server **170**. As an example and not by way of limitation, a profile page corresponding to a particular external webpage may be the particular external webpage and the profile page may correspond to a particular concept node **304**. Profile pages may be viewable by all or a selected subset of other users. As an example and not by way of limitation, a user node **302** may have a corresponding user-profile page in which the corresponding user may add content, make declarations, or otherwise express himself or herself. As another example and not by way of limitation, a concept node **304** may have a corresponding concept-profile page in which one or more users may add content, make declarations, or express themselves, particularly in relation to the concept corresponding to concept node **304**.

[0029] In particular embodiments, a concept node **304** may represent a third-party webpage or resource hosted by a third-party system **170**. The third-party webpage or resource may include, among other elements, content, a selectable or other icon, or other inter-actable object (which may be implemented, for example, in JavaScript, AJAX, or PHP codes) representing an action or activity. As an example and not by way of limitation, a third-party webpage may include a selectable icon such as "like," "check in," "eat," "recommend," or another suitable action or activity. A user viewing the third-party webpage may perform an action by selecting one of the icons (e.g., "eat"), causing a client system **130** to transmit to social-networking system **160** a message indicating the user's action. In response to the message, social-networking system **160** may create an edge (e.g., an "eat" edge) between a user node **302** corresponding to the user and a concept node **304** corresponding to the third-party webpage or resource and store edge **306** in one or more data stores.

[0030] In particular embodiments, a pair of nodes in social graph **300** may be connected to each other by one or more edges **306**. An edge **306** connecting a pair of nodes may represent a relationship between the pair of nodes. In particular embodiments, an edge **306** may include or represent one or more data objects or attributes corresponding to the relationship between a pair of nodes. As an example and not by way of limitation, a first user may indicate that a second user is a "friend" of the first user. In response to this indication, social-networking system **160** may transmit a "friend request" to the second user. If the second user confirms the "friend request," social-networking system **160** may create an edge **306** connecting the first user's user node **302** to the second user's user node **302** in social graph **300** and store edge **306** as social-graph information in one or more of data stores (e.g., data stores associated with social-networking system **160**). In the example of FIG. **3**, social graph **300** includes an edge **306** indicating a friend relation between user nodes **302** of user "A" and user "B" and an edge indicating a friend relation between user nodes **302** of user "C" and user "B." Although this disclosure describes or illustrates particular edges **306** with particular attributes connecting particular user nodes **302**, this disclosure contemplates any suitable edges **306** with any suitable attributes connecting user nodes **302**. As an example and not by way of limitation, an edge **306** may

represent a friendship, family relationship, business or employment relationship, fan relationship, follower relationship, visitor relationship, subscriber relationship, superior/subordinate relationship, reciprocal relationship, non-reciprocal relationship, another suitable type of relationship, or two or more such relationships. Moreover, although this disclosure generally describes nodes as being connected, this disclosure also describes users or concepts as being connected. Herein, references to users or concepts being connected may, where appropriate, refer to the nodes corresponding to those users or concepts being connected in social graph **300** by one or more edges **306**.

[0031] In particular embodiments, an edge **306** between a user node **302** and a concept node **304** may represent a particular action or activity performed by a user associated with user node **302** toward a concept associated with a concept node **304**. As an example and not by way of limitation, as illustrated in FIG. **3**, a user may "like," "attended," "played," "listened," "cooked," "worked at," or "watched" a concept, each of which may correspond to an edge type or subtype. A concept-profile page corresponding to a concept node **304** may include, for example, a selectable "check in" icon (such as, for example, a clickable "check in" icon) or a selectable "add to favorites" icon. Similarly, after a user clicks these icons, social-networking system **160** may create a "favorite" edge or a "check in" edge in response to a user's action corresponding to a respective action. As another example and not by way of limitation, a user (user "C") may listen to a particular song ("Ramble On") using a particular application (SPOTIFY, which is an online music application). In this case, social-networking system **160** may create a "listened" edge **306** and a "used" edge (as illustrated in FIG. **3**) between user nodes **302** corresponding to the user and concept nodes **304** corresponding to the song and application to indicate that the user listened to the song and used the application. Moreover, social-networking system **160** may create a "played" edge **306** (as illustrated in FIG. **3**) between concept nodes **304** corresponding to the song and the application to indicate that the particular song was played by the particular application. In this case, "played" edge **306** corresponds to an action performed by an external application (SPOTIFY) on an external audio file (the song "Imagine"). Although this disclosure describes particular edges **306** with particular attributes connecting user nodes **302** and concept nodes **304**, this disclosure contemplates any suitable edges **306** with any suitable attributes connecting user nodes **302** and concept nodes **304**. Moreover, although this disclosure describes edges between a user node **302** and a concept node **304** representing a single relationship, this disclosure contemplates edges between a user node **302** and a concept node **304** representing one or more relationships. As an example and not by way of limitation, an edge **306** may represent both that a user likes and has used at a particular concept. Alternatively, another edge **306** may represent each type of relationship (or multiples of a single relationship) between a user node **302** and a concept node **304** (as illustrated in FIG. **3** between user node **302** for user "E" and concept node **304** for "SPOTIFY").

[0032] In particular embodiments, social-networking system **160** may create an edge **306** between a user node **302** and a concept node **304** in social graph **300**. As an example and not by way of limitation, a user viewing a concept-profile page (such as, for example, by using a web browser or a special-purpose application hosted by the user's client system **130**) may indicate that he or she likes the concept represented by the concept node **304** by clicking or selecting a "Like" icon, which may cause the user's client system **130** to transmit to social-networking system **160** a message indicating the user's liking of the concept associated with the concept-profile page. In response to the message, social-networking system **160** may create an edge **306** between user node **302** associated with the user and concept node **304**, as illustrated by "like" edge **306** between the user and concept node **304**. In particular embodiments, social-networking system **160** may store an edge **306** in one or more data stores. In particular embodiments, an edge **306** may be automatically formed by social-networking system **160** in response to a particular user action. As an example and not by way of limitation, if a first user uploads a picture, watches a movie, or listens to a song, an edge **306** may be formed between user node **302** corresponding to the first user and concept nodes **304** corresponding to those concepts. Although this disclosure describes forming particular edges **306** in particular manners, this disclosure contemplates forming any suitable edges **306** in any suitable manner.

[0033] In particular embodiments, social-networking system **160** may determine the social-graph affinity (which may be referred to herein as "affinity") of various social-graph entities for each other. Affinity may represent the strength of a relationship or level of interest between particular objects associated with the online social network, such as users, concepts, content, actions, advertisements, other objects associated with the online social network, or any suitable combination thereof. Affinity may also be determined with respect to objects associated with third-party systems **170** or other suitable systems. An overall affinity for a social-graph entity for each user, subject matter, or type of content may be established. The overall affinity may change based on continued monitoring of the actions or relationships associated with the social-graph entity. Although this disclosure describes determining particular affinities in a particular manner, this disclosure contemplates determining any suitable affinities in any suitable manner.

[0034] In particular embodiments, social-networking system **160** may measure or quantify social-graph affinity using an affinity coefficient (which may be referred to herein as "coefficient"). The coefficient may represent or quantify the strength of a relationship between particular objects associated with the online social network. The coefficient may also represent a probability or function that measures a predicted probability that a user will perform a particular action based on the user's interest in the action. In this way, a user's future actions may be predicted based on the user's prior actions, where the coefficient may be calculated at least in part a the history of the user's actions. Coefficients may be used to predict any number of actions, which may be within or outside of the online social network. As an example and not by way of limitation, these actions may include various types of communications, such as sending messages, posting content, or commenting on content; various types of observation actions, such as accessing or viewing profile pages, media, or other suitable content; various types of coincidence information about two or more social-graph entities, such as being in the same group, tagged in the same photograph, checked-in at the same location, or attending the same event; or other suitable actions. Although this disclosure describes measuring affinity in a particular manner, this disclosure contemplates measuring affinity in any suitable manner.

[0035] In particular embodiments, social-networking system **160** may use a variety of factors to calculate a coefficient. These factors may include, for example, user actions, types of relationships between objects, location information, other suitable factors, or any combination thereof. In particular embodiments, different factors may be weighted differently when calculating the coefficient. The weights for each factor may be static or the weights may change according to, for example, the user, the type of relationship, the type of action, the user's location, and so forth. Ratings for the factors may be combined according to their weights to determine an overall coefficient for the user. As an example and not by way of limitation, particular user actions may be assigned both a rating and a weight while a relationship associated with the particular user action is assigned a rating and a correlating weight (e.g., so the weights total 100%). To calculate the coefficient of a user towards a particular object, the rating assigned to the user's actions may comprise, for example, 60% of the overall coefficient, while the relationship between the user and the object may comprise 40% of the overall coefficient. In particular embodiments, the social-networking system **160** may consider a variety of variables when determining weights for various factors used to calculate a coefficient, such as, for example, the time since information was accessed, decay factors, frequency of access, relationship to information or relationship to the object about which information was accessed, relationship to social-graph entities connected to the object, short- or long-term averages of user actions, user feedback, other suitable variables, or any combination thereof. As an example and not by way of limitation, a coefficient may include a decay factor that causes the strength of the signal provided by particular actions to decay with time, such that more recent actions are more relevant when calculating the coefficient. The ratings and weights may be continuously updated based on continued tracking of the actions upon which the coefficient is based. Any type of process or algorithm may be employed for assigning, combining, averaging, and so forth the ratings for each factor and the weights assigned to the factors. In particular embodiments, social-networking system **160** may determine coefficients using machine-learning algorithms trained on historical actions and past user responses, or data farmed from users by exposing them to various options and measuring responses. Although this disclosure describes calculating coefficients in a particular manner, this disclosure contemplates calculating coefficients in any suitable manner.

[0036] In particular embodiments, social-networking system **160** may calculate a coefficient based on a user's actions. Social-networking system **160** may monitor such actions on the online social network, on a third-party system **170**, on other suitable systems, or any combination thereof. Any suitable type of user actions may be tracked or monitored. Typical user actions include viewing profile pages, creating or posting content, interacting with content, tagging or being tagged in images, joining groups, listing and confirming attendance at events, checking-in at locations, liking particular pages, creating pages, and performing other tasks that facilitate social action. In particular embodiments, social-networking system **160** may calculate a coefficient based on the user's actions with particular types of content. The content may be associated with the online social network, a third-party system **170**, or another suitable system. The content may include users, profile pages, posts, news stories, headlines, instant messages, chat room conversations, emails, advertisements, pictures, video, music, other suitable objects, or any combination thereof. Social-networking system **160** may analyze a user's actions to determine whether one or more of the actions indicate an affinity for subject matter, content, other users, and so forth. As an example and not by way of limitation, if a user may make frequently posts content related to "coffee" or variants thereof, social-networking system **160** may determine the user has a high coefficient with respect to the concept "coffee". Particular actions or types of actions may be assigned a higher weight and/or rating than other actions, which may affect the overall calculated coefficient. As an example and not by way of limitation, if a first user emails a second user, the weight or the rating for the action may be higher than if the first user simply views the user-profile page for the second user.

[0037] In particular embodiments, social-networking system **160** may calculate a coefficient based on the type of relationship between particular objects. Referencing the social graph **300**, social-networking system **160** may analyze the number and/or type of edges **306** connecting particular user nodes **302** and concept nodes **304** when calculating a coefficient. As an example and not by way of limitation, user nodes **302** that are connected by a spouse-type edge (representing that the two users are married) may be assigned a higher coefficient than a user nodes **302** that are connected by a friend-type edge. In other words, depending upon the weights assigned to the actions and relationships for the particular user, the overall affinity may be determined to be higher for content about the user's spouse than for content about the user's friend. In particular embodiments, the relationships a user has with another object may affect the weights and/or the ratings of the user's actions with respect to calculating the coefficient for that object. As an example and not by way of limitation, if a user is tagged in first photo, but merely likes a second photo, social-networking system **160** may determine that the user has a higher coefficient with respect to the first photo than the second photo because having a tagged-in-type relationship with content may be assigned a higher weight and/or rating than having a like-type relationship with content. In particular embodiments, social-networking system **160** may calculate a coefficient for a first user based on the relationship one or more second users have with a particular object. In other words, the connections and coefficients other users have with an object may affect the first user's coefficient for the object. As an example and not by way of limitation, if a first user is connected to or has a high coefficient for one or more second users, and those second users are connected to or have a high coefficient for a particular object, social-networking system **160** may determine that the first user should also have a relatively high coefficient for the particular object. In particular embodiments, the coefficient may be based on the degree of separation between particular objects. The lower coefficient may represent the decreasing likelihood that the first user will share an interest in content objects of the user that is indirectly connected to the first user in the social graph **300**. As an example and not by way of limitation, social-graph entities that are closer in the social graph **300** (i.e., fewer degrees of separation) may have a higher coefficient than entities that are further apart in the social graph **300**.

[0038] In particular embodiments, social-networking system **160** may calculate a coefficient based on location information. Objects that are geographically closer to each other may be considered to be more related or of more interest to

each other than more distant objects. In particular embodiments, the coefficient of a user towards a particular object may be based on the proximity of the object's location to a current location associated with the user (or the location of a client system **130** of the user). A first user may be more interested in other users or concepts that are closer to the first user. As an example and not by way of limitation, if a user is one mile from an airport and two miles from a gas station, social-networking system **160** may determine that the user has a higher coefficient for the airport than the gas station based on the proximity of the airport to the user.

[0039] In particular embodiments, social-networking system **160** may perform particular actions with respect to a user based on coefficient information. Coefficients may be used to predict whether a user will perform a particular action based on the user's interest in the action. A coefficient may be used when generating or presenting any type of objects to a user, such as advertisements, search results, news stories, media, messages, notifications, or other suitable objects. The coefficient may also be utilized to rank and order such objects, as appropriate. In this way, social-networking system **160** may provide information that is relevant to user's interests and current circumstances, increasing the likelihood that they will find such information of interest. In particular embodiments, social-networking system **160** may generate content based on coefficient information. Content objects may be provided or selected based on coefficients specific to a user. As an example and not by way of limitation, the coefficient may be used to generate media for the user, where the user may be presented with media for which the user has a high overall coefficient with respect to the media object. As another example and not by way of limitation, the coefficient may be used to generate advertisements for the user, where the user may be presented with advertisements for which the user has a high overall coefficient with respect to the advertised object. In particular embodiments, social-networking system **160** may generate search results based on coefficient information. Search results for a particular user may be scored or ranked based on the coefficient associated with the search results with respect to the querying user. As an example and not by way of limitation, search results corresponding to objects with higher coefficients may be ranked higher on a search-results page than results corresponding to objects having lower coefficients.

[0040] In particular embodiments, social-networking system **160** may calculate a coefficient in response to a request for a coefficient from a particular system or process. To predict the likely actions a user may take (or may be the subject of) in a given situation, any process may request a calculated coefficient for a user. The request may also include a set of weights to use for various factors used to calculate the coefficient. This request may come from a process running on the online social network, from a third-party system **170** (e.g., via an API or other communication channel), or from another suitable system. In response to the request, social-networking system **160** may calculate the coefficient (or access the coefficient information if it has previously been calculated and stored). In particular embodiments, social-networking system **160** may measure an affinity with respect to a particular process. Different processes (both internal and external to the online social network) may request a coefficient for a particular object or set of objects. Social-networking system **160** may provide a measure of affinity that is relevant to the particular process that requested the measure of affinity. In this way, each process receives a measure of affinity that is tailored for the different context in which the process will use the measure of affinity.

[0041] In connection with social-graph affinity and affinity coefficients, particular embodiments may utilize one or more systems, components, elements, functions, methods, operations, or steps disclosed in U.S. patent application Ser. No. 11/503,093, filed 11 Aug. 2006, U.S. patent application Ser. No. 12/977,027, filed 22 Dec. 2010, U.S. patent application Ser. No. 12/978,265, filed 23 Dec. 2010, and U.S. patent application Ser. No. 13/632,869, field 1 Oct. 2012, each of which is incorporated by reference.

[0042] In particular embodiments, a set of objects may be organized into a hierarchy based on, for example, how the individual objects are related to each other. An object hierarchy may have any number of levels, and at each level, there may be any number of objects. Parent-child or sibling relationships may exist between specific objects in the hierarchy. Within an object hierarchy, a parent object is one level above the level of its child objects. Two sibling objects are at the same level and share the same parent object. In addition, any portion of the hierarchy may also be considered a hierarchy in itself.

[0043] FIG. **4** illustrates a portion of an example object hierarchy **400** that includes a number of objects **410**. FIG. **4** is in fact a visual representation of an object hierarchy. Each node represents a specific object in the hierarchy, and each edge connecting two nodes represents a parent-child relationship between the two corresponding objects.

[0044] In particular embodiments, an object in a hierarchy may or may not have a parent. If an object does not have a parent, it may be referred to as a "root" object (e.g., object **410**A). Typically, the root object is positioned at the first or topmost level of the hierarchy. In particular embodiments, an object in a hierarchy may or may not have any children. If an object does not have any children, it may be referred to as a "leaf" or "terminal" object (e.g., object **410**B). If an object does have children (e.g., object **410**C), it may have any number of children. In addition, objects sharing the same parent may be referred to as each other's "siblings". For example, in FIG. **4**, object **410**C is the parent of objects **410**D and **410**B. Objects **410**D and **410**B are the children of object **410**C and are siblings to each other. Thus, a hierarchy of objects (e.g., object hierarchy **400**) not only includes the individual objects (e.g., objects **410**) themselves but also indicates the relationships among the specific objects. Moreover, the position of a specific object within the hierarchy may indicate its relationships with other objects in the hierarchy.

[0045] Objects **410** may be of various types, and this disclosure contemplates any applicable object types. For example and without limitation, the term "object" may refer to any type of content, including but not limited to images, videos, captions, text blocks or boxes, user-interface elements, clickable links, news feed stories, references to other objects, advertisements, calendar events, units for displaying open graph analysis that may be graphically rendered, applications, websites, web pages, books, chapters. In particular embodiments, given a hierarchy of objects, which may be a portion of another, larger hierarchy of objects, the hierarchical relationships (e.g., parent-child or sibling relationships, positions of the objects within the hierarchy) between specific objects may direct some aspects of how these objects behave in the context of a user interface or how the objects are presented to a user.

[0046] As an example, in the context of the desktop of a computing device, the desktop may be a parent object, and sometimes the root object of a hierarchy, whose child objects are the individual software applications available on the desktop. A software application, while itself being one of the child objects of the desktop, is also the parent object of the individual components of that software application. Different software applications may include different components. For example, for a software application that manages digital books (e.g., a book reader application), its components may include the digital books available, the individual chapters of each book, the pages of each chapter, and the texts, images, videos, audios, or other content or media elements on each page. Each of these also corresponds to an object (e.g., user-interface component) in the hierarchy. More specifically, within the hierarchy, the digital book application may be the parent object of the digital books. A digital book may be the parent object of the individual chapters of that book. A chapter, while itself being one of the child objects of the book, is also the parent object of the pages in that chapter. A page is the parent object of the texts, images, videos, audios, or other content or media elements on that page. A text block, image, video, audio, or other content or media element is one of the child objects of the page to which it belongs. Similarly, for a software application that manages news feeds, its components may include the individual news channels and the news stories within each channel. Each of these may correspond to an object. Within the hierarchy, the news-feed application, while itself being one of the child objects of the desktop, is also the parent object of the news channels. A news channel in turn is the parent object of the news stories included in that channel.

[0047] As another example, in the context of the Internet or the World Wide Web, the Internet may be a parent object whose child objects are the individual websites. A website, while itself being one of the child objects of the Internet, is also the parent object of the individual web pages of that website. A web page, while itself being one of the child objects of the website to which it belongs, is the parent object of the texts, images, videos, audios, or links (e.g., Uniform Resource Locators (URLs)) included in the web page. Each text block, image, video, audio, or link may also correspond to a specific object in the hierarchy.

[0048] As a third example, a website, such as a social-networking website implemented by social-networking system **160**, may also be arranged in a hierarchical structure for navigating the content of the social-networking website. In this context, the social-networking website may be a parent object whose child objects are the components (e.g., photo albums, user profile pages, etc.) of the website. For example, a photo album, while itself being a child object of the social-networking website, may in turn be a parent object, and the individual photos within the album may be the child objects of the photo album. A user's profile page may be structured in such a hierarchical fashion as well. The profile page itself may be considered a parent object, and the individual objects on the profile page may be the child objects of the profile page. In particular embodiments, a profile page may be considered and rendered (e.g., for presentation to a user) as a linear timeline of objects, such as, for example and without limitation, photos, photo albums, check-ins, comments from other users, attended events, tags, applications the user has added to the profile page, stories, songs the user has listened to, playlists. These various types of objects may all be children of the profile page, or may be further arranged into multiple levels. With some implementations, a user's profile page may include any number of sections, such as the user's education and employment information, the user's public "wall", or the user's social connections. Then the various types of objects above may be divided into specific sections.

[0049] In particular embodiments, an object **410** may be a component of a user interface. In this case, object hierarchy **400** may correspond to the user interface, and each object **410** may correspond to a specific component of the user interface. A user interface may have various types of components, and this disclosure contemplates any applicable user-interface component types. For example, a user-interface component (i.e., an object **410**) may be a window, a section, a tab, an image, a video, an audio, a text block, a menu, an icon, a button, a checkbox, a website, a web page, a frame, a clickable link, a message, a post, or an input field. In particular embodiments, an object **410** may be consumed by a user if the user is able to, for example and without limitation, interact with, view, read, listen to, manipulate, or handle the object **410**. For example, some user-consumable objects **410** may be texts, images, videos, audios, feeds, executables (e.g., application programs or games), websites, web pages, digital books, photo albums, posts, or messages.

[0050] In particular embodiments, when the user interface corresponding to object hierarchy **400** is displayed (e.g., on a client system **130**), the structure of the corresponding object hierarchy **400** may reflect the structure of the user interface. The relationships among the individual components in the user interface, as reflected in object hierarchy **400**, may influence how these components are organized and presented to users. The user interface may have any number of layers, respectively corresponding to the individual levels of object hierarchy **400**. Objects **410** (e.g., user-interface components) at a specific level of object hierarchy **400** are displayed in the corresponding layer of the user interface. With some implementations, the lowest or bottommost layer of the user interface corresponds to the first or topmost level of object hierarchy **400**. Thus, root object **410**A is displayed in the lowest layer of the user interface. Furthermore, in the user interface, each object **410** (e.g., user-interface component) is displayed in a layer immediately above the layer where its parent, if one exists, is displayed and immediately below the layer where its children, if any, are displayed. Sibling objects **410** are displayed at the same layer. Thus, the position of a component in the user interface indicates its relationships (e.g., parent-child or sibling) with other components in the user interface.

[0051] In particular embodiments, the user interface may not be associated with any object hierarchy. In yet other embodiments, the user interface may be associated with an object hierarchy **400**, and interactive elements of the user interface (described herein) may, for example, be in the same layer as other objects of the user interface (e.g., in the same level of object hierarchy **400**) or in a different layer than other objects of the user interface (e.g., in a different level of object hierarchy **400**).

[0052] In particular embodiments, a user-interface component (e.g., an image, a video, a folder, etc.) may be displayed in various display modes. As an example, the user-interface component may be displayed in a "full-screen" mode, where the user-interface component occupies the entire or nearly the entire display area (e.g., the screen of an electronic device). As another example, the user-interface component may be displayed in an "on-page" mode, where the user-interface

component is included in another user-interface component and displayed as a part of that other user-interface component (e.g., an image is displayed as a part of a web page). As a third example, the user-interface component may be displayed in an "index" mode, where the user-interface component is a part of a series of user-interface components (e.g., an image is displayed together with other images from the same album, or a chapter of a book is displayed in the table of content of the book together with other chapters from the same book).

[0053] In particular embodiments, a hierarchical user interface may be used to present content to a user. Such a user interface may be referred to as a "content feed" or "news feed" user interface. The content may be of any type and format, such as, for example and without limitation, text, icon, image, video, audio, web page, post, or message. This disclosure contemplates any applicable content type and format. In particular embodiments, the individual content items (e.g., text, image, video, audio, web page, post, message, news piece, etc.) may be organized into various categories, referred to as content sections. For example, related content items may be categorized into the same content section. The user interface may include any number of content sections, and each content section may include any number of content items. Hierarchically, a content section may be the parent of the content items belonging to that section. For example, various photos taken during a holiday trip may be organized into the same album, and various photo albums may be organized into the photo section of the user interface.

[0054] In particular embodiments, a user may consume or interact with a specific content item. For example, a user may consume or interact with a content item when the user scrolls, opens up, views, listens to, selects, reviews, comments on, clicks on, or taps the content item. This disclosure contemplates any applicable means for a user to consume or interact with a content item.

[0055] As described herein, a user may interact with a computing device such as a mobile device (e.g., smartphone or tablet computer) through a user interface associated with an operating system or application running on the computing device (including, e.g., any third-party or factory-default applications). The application may be, for example, a news feed application associated with a social-networking website, a social-networking application, a camera application, a photo-viewing application, a message or status composer, an email or chat application, a game, a web browser, a telephony or text-messaging application, a music-player application, a book-reader application, or any other suitable type of application. The operating system running on the computing device (or a managing application running on the computing device) may provide one or more screens for the computing device and its applications including, for example, a home screen, a lock screen, or a launch screen. A home screen may, for example, include a default screen displayed on the computing device when the device is turned on, when a user presses a "home" button of the computing device, when no applications are running in the foreground of the computing device, or when a user of the computing device is not actively interacting with the device. As described herein, a home screen may, for example, include content, messages, notifications, or interactive elements. Although particular examples of home screens are discussed, this disclosure contemplates any suitable type of home screen including or displaying any suitable content. A launch screen may, for example, include a screen displayed on the computing device when a user presses one or more buttons of the computing device associated with launching one or more applications or when a user selects an application launch feature from a menu of options. When the launch screen is displayed, a user may be able to see and access one or more applications installed on the computing device (e.g. in the form of one or more application icons). As described herein, a launch screen may, for example, include icons, content, messages, notifications, or interactive elements. Although particular examples of launch screens are discussed, this disclosure contemplates any suitable type of launch screen including or displaying any suitable content. In particular embodiments, the computing device may be locked, preventing any interaction or preventing particular interactions with the computing device, and a lock screen may be displayed on a display of the computing device. A lock screen may, for example, include a screen displayed on the computing device when the device is inactive (e.g. after a pre-determined amount of time without user activity), when a user presses one or more buttons to lock the computing device, or when the user selects a lock feature from a menu of options. When the computing device is locked, a user may be able to access all or only a subset of all of the features of the computing device. As described herein, a lock screen may, for example, include content, messages, notifications, or interactive elements. Although particular examples of lock screens are discussed, this disclosure contemplates any suitable type of lock screen including or displaying any suitable content.

[0056] In particular embodiments, the computing device may receive user input (e.g., a sliding or swiping gesture) within a particular area of a user interface. Based on the gesture, the area in which the gesture occurred, or a combination of the two, the computing device may open one or more pre-determined applications or screens of the operating system. For example, if a user slides up on the right side of the screen of a computing device displaying a home screen user interface, a camera application may be launched, but if the user slides up on the left side of the screen, a composer application may be launched.

[0057] In particular embodiments, a user interface associated with an application or operating system of the computing device may include one or more interactive elements. An interactive element may include, for example, an icon, an image, a text block, a menu or portion of a menu, a button, a checkbox, a frame, a clickable link, a section, an input field, or any other suitable type of user-interface element. An interactive element of a user interface may be associated with the same application or operating system screen associated with the user interface (e.g., associated with actions such as "share", "save", "recommend", "forward", or "backward"). An interactive element of a user interface may be associated with a different application or screen (e.g., having its own user interface). As an example, if a user is viewing a home screen of the computing device, an interactive element associated with a news feed application may be displayed to the user within the user interface of the home screen (e.g., the interactive element may "float" on top of the display of the home screen). In yet other embodiments, interactive elements of a user interface may be associated with social-networking functionalities, such as for example, a friend feature (related to social-networking users tagged/identified in content presented in the user interface), a "Like" feature (to "like" the content), or a comment feature (to comment on the content). In particular embodiments, the friend feature of the social-

networking system may include functionality such as for example, sending friend requests to users, responding to friend requests from users, searching for users on the social-networking system, or accessing user profiles of users on the social-networking system. Herein, the term "friend" may refer to any other user of a social-networking system with whom the user associated with the computing device has formed a connection, association, or relationship via the social-networking system. In yet other embodiments, interactive elements of a user interface may be associated with social-networking functionalities related to one or more identified users. For example, each user-related social-networking interactive element may identify and provide functionalities related to a single user or a plurality of social-networking users. The identified user(s) may or may not be social-networking connections of the owner of the computing device. In particular embodiments, a messaging functionality of a user-related social-networking interactive element may include, for example, displaying the most recent message sent by the identified user, writing a message to the identified user, replying to a message from the identified user, viewing the number of unread messages from the identified user, changing messaging permissions with respect to the identified user, declining and/or deleting messages from the identified user, updating attributes associated with the user's relationship to the identified user (e.g., labeling the relationship as "Soccer Teammate" and/or categorizing the relationship as "Married To"), sending/accepting/refusing a social-networking invitation to connect to the identified user, viewing profile information for the identified user, or deleting the identified user from the user's social graph. Other functionalities may be attached to a user-related social-networking interactive element associated with an identified user, such as location-related functionalities (e.g., locate the identified user's current location on a map, or map directions to the user's address), calendar-related functionalities (e.g., bring up one or more events for which the identified user is the sender/recipient, or display the identified user's RSVP status), or any other type of user-related social-networking functionality (e.g., showing a score or status in relation to a social-networking game or application).

[0058] FIG. **5**A illustrates an example computing device, a mobile device, with home screen **500**, depicted as a background photo on the mobile device. Home screen **500** includes three interactive elements, **501**, **502**, and **503**. Interactive element **501** is a text block and may be associated with a launch screen with a separate launch user interface or with a news feed application of a social-networking website. Interactive element **502** is an icon and is associated with a composer application with a separate composer user interface. Interactive element **503** is an icon and is associated with a camera application with a separate camera user interface. In the example of FIG. **5**A, interactive elements **501**, **502**, and **503** are arranged along the bottom edge of the user interface for home screen **500**. Interactive elements of a user interface may be arranged in any suitable configuration (e.g., near or along any edge of the user interface, in rows or columns within the user interface, scattered throughout the user interface, manually placed by the user as desired, etc.).

[0059] In particular embodiments, the computing device may receive user input selecting an interactive element within a user interface. By way of example, user input selecting an interactive element may include clicking on or near the interactive element (using, e.g., an input/output device such as a mouse or a track pad), tapping on or near the interactive element (using, e.g., a stylus or the user's finger), dragging the interactive element, or any other suitable touch or gesture (e.g. single tap, double tap, short press, long press, press and hold, slide, swipe, flip, pinch open, or pinch close on or near the interactive element). Different user inputs may result in selection of the interactive element, and this disclosure contemplates any applicable user input for selection. Additionally, different types of user inputs may be mapped by the computing device to different types of behaviors within a user interface. For example, the user may select the interactive element by pressing on or near the element on a screen of the computing device.

[0060] In particular embodiments, when the computing device receives user input selecting an interactive element (e.g., by any of the gestures or actions described herein), a user interface for the application or operating system screen associated with the selected interactive element may be opened by the computing device. When this second user interface is opened, it may move into view in any suitable fashion including, for example, starting from an edge along which the interactive elements of the current user interface are arranged. When the second user interface moves into view, the current user interface may be altered or adjusted in any suitable fashion including, for example, being shifted (e.g., in the same direction as the movement of the second user interface), being scaled, being cropped, being sent to the foreground, or being sent to the background. The second user interface may, for example, appear as an overlay on top of the first user interface (e.g. until it is closed or otherwise dismissed). In particular embodiments, before the second user interface associated with the selected interactive element is opened, the user may be prompted with relevant instructions in the current user interface (e.g., to finalize selection of the interactive element and opening of the associated user interface). As described herein, the second user interface may, for example, be a screen of the operating system such as a launch screen offering the user various application options for selecting and launching. The second user interface may, for example, be a user interface for a specific application, such as a camera application or a message composer.

[0061] In the example of FIG. **5**B, the computing device has received user input selecting interactive element **501**, the text block indicating that users of a social-networking website like a photo. In the example of FIG. **5**B interactive element **501** is associated with a news feed application of a social-networking website. When the computing device receives user input selecting interactive element **501** (e.g., when the user presses and holds interactive element **501**), instructions **504** prompt the user to "Slide Up to View Photo" in the news feed application. In the alternate example of FIG. **5**C, the computing device has received user input selecting interactive element **501**. In the example of FIG. **5**C, interactive element **501** is associated with a launch screen of the operating system of the computing device. When the computing device receives user input selecting interactive element **501** (e.g., when the user presses and holds interactive element **501**), launch user interface **510** is opened, with the launch screen moving into view starting from the bottom edge of user interface of home screen **500** (the same edge where interactive elements **501**, **502**, and **503** are arranged). In this example, as launch user interface **510** moves upward into view, home screen user interface **500** shifts upward. In the example of FIG. **5**C, launch user interface **510** includes icons

associated with various applications of the operating system that may be immediately launched by the user (e.g., with further user input selecting an icon) including phone application **511**, messaging application **512**, Internet application **513**, and additional application launcher **514**.

[0062] In the example of FIG. **5**D, interactive element **503** (the camera icon, obscured by representation of the user's gesture input) is associated with a camera application. When the computing device receives user input selecting interactive element **503** (e.g., when the user presses and holds interactive element **503**), instructions **505** prompt the user to "Slide Up for Camera." FIG. **5**E illustrates the result of the user finalizing selection of interactive element **503** and opening of the camera user interface by sliding up. Home screen **500** shifts upward as camera user interface **520** moves upward into view. In the example of FIG. **5**E, camera user interface **520** immediately shows a live camera feed taken from the camera of the computing device. Camera user interface **520** includes its own interactive elements **521** (associated with a video function), **522** (associated with a photo-taking function), and **523** (associated, e.g., with a menu of additional functions).

[0063] In the example of FIG. **5**F, interactive element **501** (the composer icon, obscured by representation of the user's gesture input) is associated with a composer application. When the computing device receives user input selecting interactive element **502** (e.g., when the user presses and holds interactive element **502**), instructions **506** prompt the user to "Slide Up for Composer." FIG. **5**G illustrates the composer interface **520**, displayed as a result of the user finalizing selection of interactive element **502** and opening of the composer user interface by sliding up.

[0064] In particular embodiments, an interactive element of a user interface may be associated with other interactive elements of the user interface. As an example, user input selecting a first interactive element of a user interface may prompt the appearance of additional interactive elements within the same user interface. Each of these additional interactive elements may, for example, be associated with applications or screens of the operating system of the computing device. In the example of FIG. **5**H, interactive elements **550** and **551** (associated with a news feed application of a social-networking website) are presented in a home screen user interface. In the example of FIG. **5**H, user input selecting interactive element **550** (e.g., any suitable user input including those examples discussed herein) is received by the computing device, causing additional interactive elements **552**, **553**, and **554** to appear in the user interface of the home screen, as shown in FIG. **5**I. In the example of FIG. **5**J, additional user input selecting interactive element **552** (obscured by representation of the user's gesture) is received by the computing device. In the example of FIG. **5**K, additional user input selecting interactive element **551** is received by the computing device, and original interactive element **550** has taken the shape of the text block of interactive element **551**. In the example of FIG. **5**L, interactive element **550** is the only interactive element originally displayed in the user interface of a news feed application of a social-networking website. In this example, interactive element **550** may be an icon with a photo associated with a user of the computing device or a user of the social-networking website. When user input selecting interactive element **550** is received, additional interactive elements **552** (associated with a launch user interface and launch screen), **553** (associated with a camera application), and **554** (associated with the previous item within the same news feed application) appear in the user interface. The additional interactive elements may persist or may, in particular embodiments, disappear after a lack of user input.

[0065] In the example of FIG. **5**M, interactive element **556** is displayed in a socialized dashboard or "socialized dash" in displayable region **555**. The socialized dash may, for example, be a user interface that may be displayed on the computing device when, for example, the user is not actively interacting with an application executing on the computing device. In particular embodiments, the socialized dash may be constantly accessible (i.e., "persistent"). As an example and not by way of limitation, a persistent user interface or socialized dash may be an application that functions as a home or default screen, launch screen, or lock screen of the computing device. In the example of FIG. **5**M, displayable region **555** includes an interactive element in the form of a control bauble **556**, which may display an image associated with the user of the computing device (e.g., the user's profile picture). Control bauble **556** may provide a convenient shortcut to perform several different actions or access particular functionalities on the computing device including, for example, launching applications via an application launcher or messaging other users via a chat interface. This disclosure contemplates an interactive element (e.g. control bauble) that may provide a shortcut to perform any suitable action or access any suitable functionality on the computing device.

[0066] In the example shown in FIGS. **5**M and **5**N, after the user clicks on, touches a finger on, hovers over, or otherwise provides input selecting control bauble **556** as shown in FIG. **5**M, additional interactive elements (each associated with a different functionality) appear in the socialized dash, as shown in FIG. **5**N. In the example shown in FIG. **5**N, three additional interactive elements appear: an icon **558** to access a chat interface, an icon **560** to access an application launcher, and an icon **562** to return to the most recently-used application. In particular embodiments, more or fewer than three interactive elements may be presented upon selection of a control bauble. Additionally, although the interactive elements are arranged in a triangle formation in FIG. **5**N, any suitable arrangement of interactive elements (including, e.g., the control bauble) in a user interface is contemplated by this disclosure, and the arrangement may, for example, depend on the number or type of interactive elements presented. As an example, an interactive element associated with a particular action or functionality (or general category of action or functionality) may consistently be displayed to the user in a particular location (or general region) in the user interface. For example, an interactive element associated with a chat interface may consistently be displayed to the user to the left of the control bauble. Similarly, multiple interactive elements may consistently be displayed to the user in a particular arrangement in the user interface (e.g., chat icon to the left, application launcher icon above, and most-recently-used application icon to the right of the control bauble). Additionally, any suitable animation may accompany the presentation of interactive elements in response to selection of a control bauble. For example, interactive elements may appear to fly out in all directions from behind the control bauble toward their final positions in the user interface and may, for example, exhibit spring-like or bouncing motion before coming to rest in their final positions. Similarly, if user input selecting the control bauble is received once again, the interactive elements may appear to fly back from their final positions to a position behind the control bauble in the user interface. This disclo-

sure contemplates the use of any suitable animations in presenting interactive elements in a user interface.

[0067] In particular embodiments, the number of interactive elements presented, the selection of which interactive elements (with particular associated functionalities) to present, and/or the text or images associated with particular interactive elements may be configured by the user, automatically or dynamically by the computing device (e.g. based on a context of usage of the computing device), by pre-loaded settings of the computing device, or remotely by a social-networking system. As an example, icon **560** may be reassigned to be associated with an interface to post content to a social-networking system site. In particular embodiments, posting to the social-networking system may include functionality such as for example, uploading a photograph or video, checking in at a location, updating a status of the user, or uploading a comment on content that was posted on the social-networking system by a social connection (i.e., "friend"). As another example, the interactive elements presented in response to selection of a control bauble may reflect actions of the user on a social-networking system or other information associated with the user in the social-networking system. For example, interactive elements associated with users, concepts, content, actions, advertisements, or other objects associated with nodes in the social-networking system may be presented to a user of the computing device if a measure of affinity between the object and the user (described herein) meets a threshold level or value.

[0068] In the example shown in FIG. **5**P, the same three additional interactive elements (icons **558**, **560**, and **562**) from FIG. **5**N appear in the socialized dash in response to input selecting control bauble **556**. In this example, however, labels associated with each of the three icons also appear. For example, icon **558** has an associated label **559** of "Chat," indicating that icon **558** is associated with a chat application and that selection of icon **558** opens a chat interface. Icon **560** has an associated label **561** of "Apps," indicating that icon **560** is associated with an application launcher and that selection if icon **560** opens the application launcher interface. Icon **562** has an associated label **563** of "Last," indicating that icon **562** is associated with a shortcut to the most-recently used application on the computing device (or, alternatively, to a menu of recently-used applications). Labels associated with icons may, for example, include text, images, or any other suitable information and may, for example, be presented in a partly-transparent fashion or in any other suitable fashion within the user interface. In particular embodiments, the interactive elements presented to a user are displayed as labels only, without associated icons.

[0069] In the example illustrated in FIG. **5**Q, after interactive element icons **558**, **560**, and **562** appear, the control bauble may be used to select a particular interactive element—for example, if the user placed their finger onto control bauble **556** to cause icons **558**, **560**, and **562** to appear, the user may then drag control bauble **556** onto a particular interactive element (e.g., onto icon **560**, as shown in FIG. **5**P) in order to select it. In particular embodiments, a physical model (e.g. a gravity-based model or any other suitable model) may be employed when animating interactions in the user interface. For example, as control bauble **556** is brought closer to icon **560** (e.g. by a user dragging control bauble **556** upward, as indicated by the arrows in FIG. **5**Q), the "gravity" of the control bauble may "suck in" the icon that the control bauble is approaching (or, e.g., is closest to)—in this case, icon **560**—such that the icon moves toward the control bauble. In FIG. **5**Q, the user's dragging upward of control bauble **556** causes icon **560** to move downward toward control bauble. In particular embodiments, such as where clicking on or tapping control bauble **556** caused interactive elements to appear, the user may only need to click on or tap a particular interactive element in order to select it.

[0070] FIG. **6**A illustrates an example method **600** for selecting an interactive element of a user interface. The method may begin at step **610**, where a first user interface is provided for presentation. The first user interface is associated with a first application and comprises a plurality of interactive elements arranged along an edge of the first user interface. At step **620**, user input selecting one of the interactive elements is received. At step **630**, in response to the user input, a second user interface associated with a second application (associated with the selected interactive element) is provided for presentation. The second user interface is presented by moving into view starting from the edge. Particular embodiments may repeat one or more steps of the method of FIG. **6**A, where appropriate. Although this disclosure describes and illustrates particular steps of the method of FIG. **6**A as occurring in a particular order, this disclosure contemplates any suitable steps of the method of FIG. **6**A occurring in any suitable order. Moreover, although this disclosure describes and illustrates particular components, devices, or systems carrying out particular steps of the method of FIG. **6**A, this disclosure contemplates any suitable combination of any suitable components, devices, or systems carrying out any suitable steps of the method of FIG. **6**A.

[0071] FIG. **6**B illustrates an example method **650** for selecting an interactive element of a user interface. The method may begin at step **660**, where a first user interface comprising a first interactive element is provided for presentation. At step **665**, first user input selecting the first interactive elements is received. At step **670**, in response to the first user input, a plurality of second interactive elements is provided for presentation, each of the second interactive elements being presented with an associated label. At step **675**, a second user input selecting one of the second interactive elements is received. At step **680**, in response to the second user input, a second user interface is provided for presentation. Particular embodiments may repeat one or more steps of the method of FIG. **6**B, where appropriate. Although this disclosure describes and illustrates particular steps of the method of FIG. **6**B as occurring in a particular order, this disclosure contemplates any suitable steps of the method of FIG. **6**B occurring in any suitable order. Moreover, although this disclosure describes and illustrates particular components, devices, or systems carrying out particular steps of the method of FIG. **6**B, this disclosure contemplates any suitable combination of any suitable components, devices, or systems carrying out any suitable steps of the method of FIG. **6**B.

[0072] FIG. **7** illustrates an example computer system **700**. In particular embodiments, one or more computer systems **700** perform one or more steps of one or more methods described or illustrated herein. In particular embodiments, one or more computer systems **700** provide functionality described or illustrated herein. In particular embodiments, software running on one or more computer systems **700** performs one or more steps of one or more methods described or illustrated herein or provides functionality described or illustrated herein. Particular embodiments include one or more portions of one or more computer systems **700**. Herein, ref-

erence to a computer system may encompass a computing device, and vice versa, where appropriate. Moreover, reference to a computer system may encompass one or more computer systems, where appropriate.

[0073] This disclosure contemplates any suitable number of computer systems **700**. This disclosure contemplates computer system **700** taking any suitable physical form. As example and not by way of limitation, computer system **700** may be an embedded computer system, a system-on-chip (SOC), a single-board computer system (SBC) (such as, for example, a computer-on-module (COM) or system-on-module (SOM)), a desktop computer system, a laptop or notebook computer system, an interactive kiosk, a mainframe, a mesh of computer systems, a mobile telephone, a personal digital assistant (PDA), a server, a tablet computer system, or a combination of two or more of these. Where appropriate, computer system **700** may include one or more computer systems **700**; be unitary or distributed; span multiple locations; span multiple machines; span multiple data centers; or reside in a cloud, which may include one or more cloud components in one or more networks. Where appropriate, one or more computer systems **700** may perform without substantial spatial or temporal limitation one or more steps of one or more methods described or illustrated herein. As an example and not by way of limitation, one or more computer systems **700** may perform in real time or in batch mode one or more steps of one or more methods described or illustrated herein. One or more computer systems **700** may perform at different times or at different locations one or more steps of one or more methods described or illustrated herein, where appropriate.

[0074] In particular embodiments, computer system **700** includes a processor **702**, memory **704**, storage **706**, an input/output (I/O) interface **708**, a communication interface **710**, and a bus **712**. Although this disclosure describes and illustrates a particular computer system having a particular number of particular components in a particular arrangement, this disclosure contemplates any suitable computer system having any suitable number of any suitable components in any suitable arrangement.

[0075] In particular embodiments, processor **702** includes hardware for executing instructions, such as those making up a computer program. As an example and not by way of limitation, to execute instructions, processor **702** may retrieve (or fetch) the instructions from an internal register, an internal cache, memory **704**, or storage **706**; decode and execute them; and then write one or more results to an internal register, an internal cache, memory **704**, or storage **706**. In particular embodiments, processor **702** may include one or more internal caches for data, instructions, or addresses. This disclosure contemplates processor **702** including any suitable number of any suitable internal caches, where appropriate. As an example and not by way of limitation, processor **702** may include one or more instruction caches, one or more data caches, and one or more translation lookaside buffers (TLBs). Instructions in the instruction caches may be copies of instructions in memory **704** or storage **706**, and the instruction caches may speed up retrieval of those instructions by processor **702**. Data in the data caches may be copies of data in memory **704** or storage **706** for instructions executing at processor **702** to operate on; the results of previous instructions executed at processor **702** for access by subsequent instructions executing at processor **702** or for writing to memory **704** or storage **706**; or other suitable data. The data caches may speed up read or write operations by processor **702**. The TLBs may speed up virtual-address translation for processor **702**. In particular embodiments, processor **702** may include one or more internal registers for data, instructions, or addresses. This disclosure contemplates processor **702** including any suitable number of any suitable internal registers, where appropriate. Where appropriate, processor **702** may include one or more arithmetic logic units (ALUs); be a multi-core processor; or include one or more processors **702**. Although this disclosure describes and illustrates a particular processor, this disclosure contemplates any suitable processor.

[0076] In particular embodiments, memory **704** includes main memory for storing instructions for processor **702** to execute or data for processor **702** to operate on. As an example and not by way of limitation, computer system **700** may load instructions from storage **706** or another source (such as, for example, another computer system **700**) to memory **704**. Processor **702** may then load the instructions from memory **704** to an internal register or internal cache. To execute the instructions, processor **702** may retrieve the instructions from the internal register or internal cache and decode them. During or after execution of the instructions, processor **702** may write one or more results (which may be intermediate or final results) to the internal register or internal cache. Processor **702** may then write one or more of those results to memory **704**. In particular embodiments, processor **702** executes only instructions in one or more internal registers or internal caches or in memory **704** (as opposed to storage **706** or elsewhere) and operates only on data in one or more internal registers or internal caches or in memory **704** (as opposed to storage **706** or elsewhere). One or more memory buses (which may each include an address bus and a data bus) may couple processor **702** to memory **704**. Bus **712** may include one or more memory buses, as described below. In particular embodiments, one or more memory management units (MMUs) reside between processor **702** and memory **704** and facilitate accesses to memory **704** requested by processor **702**. In particular embodiments, memory **704** includes random access memory (RAM). This RAM may be volatile memory, where appropriate Where appropriate, this RAM may be dynamic RAM (DRAM) or static RAM (SRAM). Moreover, where appropriate, this RAM may be single-ported or multi-ported RAM. This disclosure contemplates any suitable RAM. Memory **704** may include one or more memories **704**, where appropriate. Although this disclosure describes and illustrates particular memory, this disclosure contemplates any suitable memory.

[0077] In particular embodiments, storage **706** includes mass storage for data or instructions. As an example and not by way of limitation, storage **706** may include a hard disk drive (HDD), a floppy disk drive, flash memory, an optical disc, a magneto-optical disc, magnetic tape, or a Universal Serial Bus (USB) drive or a combination of two or more of these. Storage **706** may include removable or non-removable (or fixed) media, where appropriate. Storage **706** may be internal or external to computer system **700**, where appropriate. In particular embodiments, storage **706** is non-volatile, solid-state memory. In particular embodiments, storage **706** includes read-only memory (ROM). Where appropriate, this ROM may be mask-programmed ROM, programmable ROM (PROM), erasable PROM (EPROM), electrically erasable PROM (EEPROM), electrically alterable ROM (EAROM), or flash memory or a combination of two or more of these.

This disclosure contemplates mass storage **706** taking any suitable physical form. Storage **706** may include one or more storage control units facilitating communication between processor **702** and storage **706**, where appropriate. Where appropriate, storage **706** may include one or more storages **706**. Although this disclosure describes and illustrates particular storage, this disclosure contemplates any suitable storage.

[0078] In particular embodiments, I/O interface **708** includes hardware, software, or both, providing one or more interfaces for communication between computer system **700** and one or more I/O devices. Computer system **700** may include one or more of these I/O devices, where appropriate. One or more of these I/O devices may enable communication between a person and computer system **700**. As an example and not by way of limitation, an I/O device may include a keyboard, keypad, microphone, monitor, mouse, printer, scanner, speaker, still camera, stylus, tablet, touch screen, trackball, video camera, another suitable I/O device or a combination of two or more of these. An I/O device may include one or more sensors. This disclosure contemplates any suitable I/O devices and any suitable I/O interfaces **708** for them. Where appropriate, I/O interface **708** may include one or more device or software drivers enabling processor **702** to drive one or more of these I/O devices. I/O interface **708** may include one or more I/O interfaces **708**, where appropriate. Although this disclosure describes and illustrates a particular I/O interface, this disclosure contemplates any suitable I/O interface.

[0079] In particular embodiments, communication interface **710** includes hardware, software, or both providing one or more interfaces for communication (such as, for example, packet-based communication) between computer system **700** and one or more other computer systems **700** or one or more networks. As an example and not by way of limitation, communication interface **710** may include a network interface controller (NIC) or network adapter for communicating with an Ethernet or other wire-based network or a wireless NIC (WNIC) or wireless adapter for communicating with a wireless network, such as a WI-FI network. This disclosure contemplates any suitable network and any suitable communication interface **710** for it. As an example and not by way of limitation, computer system **700** may communicate with an ad hoc network, a personal area network (PAN), a local area network (LAN), a wide area network (WAN), a metropolitan area network (MAN), or one or more portions of the Internet or a combination of two or more of these. One or more portions of one or more of these networks may be wired or wireless. As an example, computer system **700** may communicate with a wireless PAN (WPAN) (such as, for example, a BLUETOOTH WPAN), a WI-FI network, a WI-MAX network, a cellular telephone network (such as, for example, a Global System for Mobile Communications (GSM) network), or other suitable wireless network or a combination of two or more of these. Computer system **700** may include any suitable communication interface **710** for any of these networks, where appropriate. Communication interface **710** may include one or more communication interfaces **710**, where appropriate. Although this disclosure describes and illustrates a particular communication interface, this disclosure contemplates any suitable communication interface.

[0080] In particular embodiments, bus **712** includes hardware, software, or both coupling components of computer system **700** to each other. As an example and not by way of limitation, bus **712** may include an Accelerated Graphics Port (AGP) or other graphics bus, an Enhanced Industry Standard Architecture (EISA) bus, a front-side bus (FSB), a HYPERTRANSPORT (HT) interconnect, an Industry Standard Architecture (ISA) bus, an INFINIBAND interconnect, a low-pin-count (LPC) bus, a memory bus, a Micro Channel Architecture (MCA) bus, a Peripheral Component Interconnect (PCI) bus, a PCI-Express (PCIe) bus, a serial advanced technology attachment (SATA) bus, a Video Electronics Standards Association local (VLB) bus, or another suitable bus or a combination of two or more of these. Bus **712** may include one or more buses **712**, where appropriate. Although this disclosure describes and illustrates a particular bus, this disclosure contemplates any suitable bus or interconnect.

[0081] Herein, a computer-readable non-transitory storage medium or media may include one or more semiconductor-based or other integrated circuits (ICs) (such, as for example, field-programmable gate arrays (FPGAs) or application-specific ICs (ASICs)), hard disk drives (HDDs), hybrid hard drives (HHDs), optical discs, optical disc drives (ODDs), magneto-optical discs, magneto-optical drives, floppy diskettes, floppy disk drives (FDDs), magnetic tapes, solid-state drives (SSDs), RAM-drives, SECURE DIGITAL cards or drives, any other suitable computer-readable non-transitory storage media, or any suitable combination of two or more of these, where appropriate. A computer-readable non-transitory storage medium may be volatile, non-volatile, or a combination of volatile and non-volatile, where appropriate.

[0082] Herein, "or" is inclusive and not exclusive, unless expressly indicated otherwise or indicated otherwise by context. Therefore, herein, "A or B" means "A, B, or both," unless expressly indicated otherwise or indicated otherwise by context. Moreover, "and" is both joint and several, unless expressly indicated otherwise or indicated otherwise by context. Therefore, herein, "A and B" means "A and B, jointly or severally," unless expressly indicated otherwise or indicated otherwise by context.

[0083] The scope of this disclosure encompasses all changes, substitutions, variations, alterations, and modifications to the example embodiments described or illustrated herein that a person having ordinary skill in the art would comprehend. The scope of this disclosure is not limited to the example embodiments described or illustrated herein. Moreover, although this disclosure describes and illustrates respective embodiments herein as including particular components, elements, functions, operations, or steps, any of these embodiments may include any combination or permutation of any of the components, elements, functions, operations, or steps described or illustrated anywhere herein that a person having ordinary skill in the art would comprehend. Furthermore, reference in the appended claims to an apparatus or system or a component of an apparatus or system being adapted to, arranged to, capable of, configured to, enabled to, operable to, or operative to perform a particular function encompasses that apparatus, system, component, whether or not it or that particular function is activated, turned on, or unlocked, as long as that apparatus, system, or component is so adapted, arranged, capable, configured, enabled, operable, or operative.

What is claimed is:

1. A method comprising:

by a computing device, providing for presentation a first user interface comprising a first interactive element;

by the computing device, receiving first user input selecting the first interactive element;

by the computing device, in response to the first user input, providing for presentation a plurality of second interactive elements, each of the second interactive elements being presented with an associated label;

by the computing device, receiving a second user input selecting one of the second interactive elements; and

by the computing device, in response to the second user input, providing for presentation a second user interface.

2. The method of claim **1**, wherein the first user input comprises a touch gesture comprising pressing and holding the first interactive element.

3. The method of claim **1**, wherein the plurality of second interactive elements comprises:

an interactive element associated with a chat application;

an interactive element associated with an application launcher; and

an interactive element associated with a recently-used application.

4. The method of claim **1**, wherein the second user input selecting one of the second interactive elements comprises a touch gesture comprising:

tapping the one of the second interactive elements;

pressing the one of the second interactive elements;

sliding the one of the second interactive elements; or

swiping the one of the second interactive elements.

5. The method of claim **1**, wherein the second user input selecting one of the second interactive elements comprises a touch gesture comprising dragging the first interactive element toward the one of the second interactive elements.

6. The method of claim **1**, wherein the labels comprise one or more of text or images.

7. The method of claim **1**, wherein the second user interface is overlaid on the first user interface.

8. The method of claim **1**, wherein the second user interface is associated with one or more of the following:

a chat application;

an application launcher; or

a recently-used application.

9. One or more computer-readable non-transitory storage media embodying software that is operable when executed to:

provide for presentation a first user interface comprising a first interactive element;

receive first user input selecting the first interactive element;

in response to the first user input, provide for presentation a plurality of second interactive elements, each of the second interactive elements being presented with an associated label;

receive a second user input selecting one of the second interactive elements; and

in response to the second user input, provide for presentation a second user interface.

10. The media of claim **9**, wherein the first user input comprises a touch gesture comprising pressing and holding the first interactive element.

11. The media of claim **9**, wherein the plurality of second interactive elements comprises:

an interactive element associated with a chat application;

an interactive element associated with an application launcher; and

an interactive element associated with a recently-used application.

12. The media of claim **9**, wherein the second user input selecting one of the second interactive elements comprises a touch gesture comprising:

tapping the one of the second interactive elements;

pressing the one of the second interactive elements;

sliding the one of the second interactive elements; or

swiping the one of the second interactive elements.

13. The media of claim **9**, wherein the second user input selecting one of the second interactive elements comprises a touch gesture comprising dragging the first interactive element toward the one of the second interactive elements.

14. The media of claim **9**, wherein the labels comprise one or more of text or images.

15. The media of claim **9**, wherein the second user interface is overlaid on the first user interface.

16. A system comprising:

one or more processors; and

a memory coupled to the processors comprising instructions executable by the processors, the processors being operable when executing the instructions to:

provide for presentation a first user interface comprising a first interactive element;

receive first user input selecting the first interactive element;

in response to the first user input, provide for presentation a plurality of second interactive elements, each of the second interactive elements being presented with an associated label;

receive a second user input selecting one of the second interactive elements; and

in response to the second user input, provide for presentation a second user interface.

17. The system of claim **16**, wherein the first user input comprises a touch gesture comprising pressing and holding the first interactive element.

18. The system of claim **16**, wherein the plurality of second interactive elements comprises:

an interactive element associated with a chat application;

an interactive element associated with an application launcher; and

an interactive element associated with a recently-used application.

19. The system of claim **16**, wherein the second user input selecting one of the second interactive elements comprises a touch gesture comprising dragging the first interactive element toward the one of the second interactive elements.

20. The system of claim **16**, wherein the labels comprise one or more of text or images.

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