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Wrist-wearable devices for aggregating and guiding access to data from multiple different electronic messaging applications via a quickly-accessible communications-hub mode, and methods of use thereof

#### **Abstract**

An example method for managing messaging for multiple messaging accounts includes displaying, at an electronic device, an aggregated messaging user interface (UI) that includes data from a plurality of user accounts associated with one or more messaging application. The method further includes detecting a selection of a UI element for creating a new message via at least one respective user account of the plurality of user accounts. The method includes, after detecting the selection, and after determining that messaging capabilities for two or more respective user accounts of the plurality of user accounts are enabled, presenting: (i) a first selectable option that, when selected causes the electronic device to initiate creation of a message for a first respective user account, and (ii) a second selectable option that, when selected, causes the electronic device to initiate creation of a message for a second respective user account.

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### **References Cited**

#### U.S. PATENT DOCUMENTS

Patent No.	<b>Issued Date</b>	<b>Patentee Name</b>	U.S. Cl.	CPC
2011/0130168	12/2010	Vendrow	455/556.1	H04L 51/216
2015/0098309	12/2014	Adams	368/10	G04F 10/00
2018/0183738	12/2017	Parnell	N/A	G06Q 50/01
2018/0212920	12/2017	Govande	N/A	H04L 67/535

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# **Background/Summary**

CROSS-REFERENCE TO RELATED APPLICATIONS (1) This application is a continuation of U.S. patent application Ser. No. 17/832,486, filed on Jun. 3, 2022, entitled "Wrist-Wearable Devices For Aggregating And Guiding Access To Data From Multiple Different Electronic Messaging Applications Via A Quickly-Accessible Communications-Hub Mode, And Methods Of Use Thereof," which claims priority to U.S. Prov. App. No. 63/209,064, filed on Jun. 10, 2021, and entitled "Wrist-Wearable Devices For Aggregating And Guiding Access To Data From Multiple Different Electronic Messaging Applications Via A Quickly-Accessible Communications-Hub Mode, And Methods Of Use Thereof"; U.S. Prov. App. No. 63/223,929, filed on Jul. 20, 2021, and

entitled "Wrist-Wearable Devices For Aggregating And Guiding Access To Data From Multiple Different Electronic Messaging Applications Via A Quickly-Accessible Communications-Hub Mode, And Methods Of Use Thereof"; and U.S. Prov. App. No. 63/306,031, filed on Feb. 2, 2022, and entitled "Wrist-Wearable Devices For Aggregating And Guiding Access To Data From Multiple Different Electronic Messaging Applications Via A Quickly-Accessible Communications-Hub Mode, And Methods Of Use Thereof," each of which is incorporated herein by reference in its respective entirety.

#### TECHNICAL FIELD

(1) The present disclosure relates generally to wearable devices and methods for aggregating and guiding access to data from multiple different electronic messaging applications and more particularly to wrist-wearable devices configured to aggregate and guide access to electronic messaging data from multiple different messaging applications in a quickly accessible communications-hub mode.

### **BACKGROUND**

- (2) Computing devices, such as computers, phones, and tablets, are used to send and receive messages, audio calls, and/or video calls from different applications and/or communication networks (e.g., cellular networks). Due to the amount of information included in different messages, audio calls, and/or video calls, computing devices require large displays to present users with information in an easily digestible format. Current computing devices are not well suited for hands-free, on-the-go, multitasking situations (e.g., shopping, walking, hiking, doing chores, cooking). Smaller devices, such as wearable devices, while better suited for on-the-go situations include small displays that limit the amount of information that can be presented to a user at a given time. The limited display size of the wearable devices makes it difficult for users to easily and quickly access all of their information and interact with presented user interfaces. Current display capabilities of smaller devices can create cumbersome user experiences (especially for viewing multiple different messaging applications) that do not provide users with an enjoyable experience. Further, existing wearable devices include limited computing resources and other restrictions that can reduce the total number of accounts (e.g., accounts used by users for exchanging electronic messages) that can be associated with a particular messaging application at a particular time.
- (3) As such, there is a need to address the above drawbacks faced by users of conventional wearable devices.

### **SUMMARY**

- (4) The systems and methods described herein address one or more of the above-mentioned drawbacks by allowing a user to seamlessly access information from multiple applications on his or her wrist-wearable device as well as increase the amount of information that is made quickly accessible (e.g., using a minimal number of inputs such as just a single input) to the user via a small display (e.g., a display with a 30 mm to 65 mm diameter or diagonal measurement) of the wrist-wearable device, thereby enabling a continued and/or guided human-machine interaction process at the wrist-wearable device without reducing the quality or limiting the type of information presented. Further, the systems and methods described herein allow wrist-wearable devices to quickly and seamlessly access and then aggregate contacts, messages, and other information from a number of different accounts and applications associated with a user of the wrist-wearable device, which allow the wrist-wearable device to then present aggregated user interfaces (e.g., user interfaces that include aggregated data from multiple different application sources) to the user.
- (5) In this way, a user is able to access data from multiple accounts on a single device (i.e., a wrist-wearable device including a display) and improve the user's daily activities and productivity by allowing for a guided and sustained human-machine interface in which a user can access

disparately located (e.g., in different applications) message data in an aggregated user interface to allow the user to access all message data in a guided and sustained interaction (and without the need to haphazardly and inefficiently jump between different applications on a small screen for which fat-finger-input issues can exist that further slow access to different applications). Thus, the user is enabled to access this disparately located message data (and also disparately located contact information) in a much more efficient manner (and without wasting time or dealing with frustrations through erroneous inputs, which issues can contribute to draining battery lift on a wristwearable device). Thus, a compact, hands-free computing system is provided that can be worn throughout the users' day without inconveniencing the users or restricting their movements (and thus making it easier to interact with their physical and artificial environments in tandem (as a complement to everyday life)). Additionally, the systems and method disclosed herein save users time by not requiring them to go into different applications to use the application and save processing resources by having all of a user's information in one place (e.g., via a communicationshub mode that is quickly activated using a single input from a watch-face user interface of the wrist-wearable device) without having the user run the various applications separately. (6) Note that the various embodiments described above can be combined with any other embodiments described herein. The features and advantages described in the specification are not all-inclusive and, in particular, many additional features and advantages will be apparent to one of ordinary skill in the art in view of the drawings, specification, and claims. Moreover, it should be noted that the language used in the specification has been principally selected for readability and instructional purposes and may not have been selected to delineate or circumscribe the subject

# **Description**

matter described herein.

#### BRIEF DESCRIPTION OF THE DRAWINGS

- (1) So that the present disclosure can be understood in greater detail, a more particular description may be had by reference to the features of various embodiments, some of which are illustrated in the appended drawings. The appended drawings, however, merely illustrate pertinent features of the present disclosure and are therefore not to be considered limiting, for the description may admit to other effective features as the person of skill in this art will appreciate upon reading this disclosure.
- (2) FIGS. **1**A-**1**F illustrate a guided human-machine interaction process based on detected user input to activate a communications-hub mode and then interact with aggregated user interfaces available in the communications-hub mode, in accordance with some embodiments. FIGS. **1**G-**1**J also illustrate user interaction with aggregated user interfaces available in the communications-hub mode at a portable device, in accordance with some embodiments.
- (3) FIG. **2** illustrates a guided human-machine interaction process based on detected user input in an aggregated messaging user interface while the communications-hub mode is active, in accordance with some embodiments.
- (4) FIG. 3 illustrates a guided human-machine interaction process based on detected user input in an aggregated-call-log user interface while the communications-hub mode is active, in accordance with some embodiments.
- (5) FIGS. **4**A-**4**D illustrate variations of user interface elements (e.g., call UI elements **187**, FIG. **1**F) that can be displayed in the aggregated call log user interface, in accordance with some embodiments.
- (6) FIGS. 5A and 5B illustrate guided human-machine interaction processes for returning video and audio calls received from a single contact using more than one contact form, in accordance with some embodiments.

- (7) FIGS. **6**A-**6**C illustrate a guided human-machine interaction process for enabling and disabling various user accounts associated with different messaging applications for use with the communications-hub mode, according to some embodiments.
- (8) FIGS. 7A-7C illustrate configuration user interfaces for adjusting settings associated with the communications-hub mode of the wrist-wearable device, according to some embodiments.
- (9) FIGS. **8**A-**8**E illustrate a guided human-machine interaction process for configuring user accounts to be used with the communications-hub mode, according to some embodiments.
- (10) FIGS. **9**A-**9**E show a detailed flow diagram of a method for activating a communications-hub mode and interacting with aggregated user interfaces available therein, according to some embodiments.
- (11) FIGS. **10**A and **10**B illustrate an example wrist-wearable device, in accordance with some embodiments. FIGS. **10**C and **10**D illustrates a portable device, in accordance with some embodiments.
- (12) FIG. **11** is a block diagram of a wrist-wearable device system, in accordance with some embodiments.
- (13) In accordance with common practice, the various features illustrated in the drawings may not be drawn to scale. Accordingly, the dimensions of the various features may be arbitrarily expanded or reduced for clarity. In addition, some of the drawings may not depict all of the components of a given system, method, or device. Finally, like reference numerals may be used to denote like features throughout the specification and figures.

### **DETAILED DESCRIPTION**

- (14) Numerous details are described herein in order to provide a thorough understanding of the example embodiments illustrated in the accompanying drawings. However, some embodiments may be practiced without many of the specific details, and the scope of the claims is only limited by those features and aspects specifically recited in the claims. Furthermore, well-known processes, components, and materials have not been described in exhaustive detail so as to avoid obscuring pertinent aspects of the embodiments described herein.
- (15) FIGS. 1A-1F illustrate a guided human-machine interaction process based on detected user input to activate a communications-hub mode and then interact with aggregated user interfaces available in the communications-hub mode. More specifically, FIGS. 1A-IF illustrate activating a communications-hub mode **100** in response to detected user input at a wrist-wearable device **110**. The wrist-wearable device **110** can include one or more displays **130** (e.g., a touch screen) for presenting a visual representation of data to a user **120**, speakers for presenting an audio representation of data to the user **120**, microphones for capturing audio data, imaging devices (e.g., a camera) for capturing image data and/or video data (referred to as camera data), and sensors (e.g., such as electromyography (EMG) sensors **1145** and/or other sensors described below in reference to FIG. 11). Additional information on wrist-wearable device 110 is provided below in reference to FIGS. **10**A, **10**B, and **11**. In some embodiments, the wrist-wearable device **110** is communicatively coupled with an intermediary device (e.g., a server, a computer, a smartphone, smart glasses, a tablet, a portable device **113**, and/or other computing devices). In some embodiments, the wristwearable device **110** is communicatively coupled to more than one intermediary device. (16) The communications-hub mode **100** provides a user **120** access to two or more of an aggregated messaging user interface (UI) **160**, an aggregated call log UI **180**, and an aggregated contacts UI **250** (FIGS. **2** and **3**). Each UI includes data from one or more electronic messaging applications included in the wrist-wearable device **110**. In some embodiments, each UI (e.g., each of the aggregated messaging UI, aggregated call log UI, and aggregated contacts UI) includes data from at least two electronic messaging applications included in the wrist-wearable device **110**. In some embodiments, the at least two electronic messaging applications are configured for receiving and sending text messages, emails, instant messages, images, audio clips, video clips, and other digital files or messages, including social media posts. Additionally, in some implementations, the

at least two electronic messaging applications are configured for receiving and/or initiating audio calls, video calls, and/or voicemails. In some embodiments, the one or more messaging applications 165 are social media applications providing a range of electronic messaging features (including textual, video, audio, etc., messaging), but can also be applications enabling messaging of a particular type, such as email applications, instant messaging applications, Voice over Internet Protocol (VOIP) applications, videoconferencing and/or audioconferencing applications, audio and/or video voicemail applications, native computing device 115's calling applications (e.g., calls over a cellular network), native computing device 115's messaging applications (e.g., SMS text or MMS text over a cellular network), and/or other communication applications. Specific, nonlimiting examples of the at least two electronic messaging applications are an Instagram application, Facebook application (include the Messenger application provided by Facebook), WhatsApp application, Workplace from Facebook application, or other applications made available by Facebook.

- (17) The user input is detected via a wrist-wearable device **110** including a display **130** configured to display one or more UIs, such as a watch-face UI **140**, the aggregated messaging UI **160**, the aggregated call log UI **180**, and other UIs disclosed herein. As described above, in some embodiments the wrist-wearable device **110** includes one or more messaging applications **165**. For example, the wrist-wearable device **110** includes a first messaging application **165**A through sixth messaging application **165**F (e.g., the applications associated with each of the icons/UI elements shown in FIGS. **1**A-**3**). In some embodiments, each messaging application **165** is distinct. In some embodiments, as discussed below in reference to FIGS. **6**A-**6**C, a messaging application **165** is associated with one or more user accounts such that the messaging application **165** can be associated with one user account as well as multiple different user accounts (such as two, three, or four user accounts that one user uses to receive messaging data via the messaging application **165**). In some embodiments, an instance of messaging application **165** can be installed both at the wrist-wearable device **110** and at the computing device **115** that is associated with the wrist-wearable device **110**.
- (18) In some embodiments, the wrist-wearable device **110** operates using an operating system that is responsible for execution of the one or more messaging applications **165**. In some embodiments, the one or more messaging applications **165** provide data regarding electronic messages, contacts, calls, and voicemails for active user accounts associated with a communications-hub mode (discussed in more detail below) to the operating system for use in generating an aggregated messaging UI **160**, an aggregated call log UI **180**, and an aggregated contacts UI **250** (FIG. **2**). In some embodiments, a provider of the operating system is also the provider of the one or more messaging applications (in some embodiments, Facebook is the provider of both the operating system and the one or more messaging applications). In some embodiments, the wrist-wearable device **110** receives updates from all the messaging applications **165** and merges all of the updates in chronological order.
- (19) In some embodiments, the wrist-wearable device **110** displays, on its display **130**, the watchface UI **140**. The watch-face UI **140** can be a UI that is displayed by default at the wrist-wearable device **110**. An example watch-face UI **140** is shown in FIGS. **1**A and **1**B, in which the example watch-face UI **140** includes at least a current time (e.g., clock UI element **141**), a current day of the week (e.g., day UI element **142**), a current date (e.g., date UI element **143**), and current weather information (e.g., weather UI element **144**, which can include both a current weather condition and a current temperature based on the current location of the wrist-wearable device **110**). The watchface UI **140** can also include an indication of a charge level of a battery of the wrist-wearable device (e.g., battery UI element **145**) and one or more other status indications (e.g., status UI element **146**, which shows a countdown timer).
- (20) In some embodiments, the watch-face UI **140** provides an indication UI element **149**. In some embodiments, the indication UI element **149** can be an arrow that moves in a direction indicating

that a single sliding gesture (or single tap input) can be provided over the indication UI element 149 and the indication UI element 149 can also include text to indicate that a communications-hub mode is available (such as text stating "Comm Hub Mode" or simply "Comm Hub"). In some embodiments, the indication UI element 149 guides the user 120 into performing one or more inputs to access one or more of the aggregated messaging UI 160 and/or the aggregated call log UI 180. For example, in some embodiments the indication UI element 149 guides the user to provide a single input 150 (e.g., a single tap input or single gesture input) to activate a communications-hub mode that enables access to two or more aggregated UIs that are discussed more below. In some embodiments, the indication UI element 149 can also include circles or other markers. In some embodiments, the indication UI element 149 is a color-coded indicator, flashing lights, alphanumeric characters, etc. In some embodiments, the indication UI element 149 includes the number of unread messages, the number of received audio and/or video calls, and/or the number of voicemails that are presented within the aggregated UIs accessible via the communications-hub mode. In some embodiments, the indication UI element 149 distinguishes between messages, audio and/or video calls, and/or voicemails.

- (21) In some embodiments, while displaying the watch-face UI **140**, the wrist-wearable device **110** detects a single input from a user **120** wearing the wrist-wearable device **110**. The single input corresponds to a request from the user **120** to activate a communications-hub mode **100**. The communications-hub mode **100** provides access to two or more of an aggregated messaging UI **160**, an aggregated call log UI **180**, and an aggregated contacts UI **250**. In some embodiments, each UI includes data from each messaging application **165**. Examples of the single input include (i) a single gesture across the representation of the watch face (e.g., the watch-face UI 140), such as a sliding gesture (represented by a gesture that includes an input moving from position 150A to position **150**B of FIG. **1**B); (ii) a voice command received from the user **120** via either a microphone **1194** (FIG. **11**) of the wrist-wearable device **110** or a microphone that is in communication with the wrist-wearable device **110** (e.g., mic on separate headphones, mic on AR glasses 117, mic on the computing device 115); and (iii) a gesture detected based on sensed neuromuscular signals (e.g., as described below in reference to FIGS. 10A and 10B). The single gesture across the representation of the watch face (or the other UIs described herein) can be from right to left, left to right, down to up, up to down, diagonal from respective corners, and/or other variations. In some embodiments, the wrist-wearable device **110** detects the single input (e.g., the single gesture across the representation of the watch face) when initiated from a portion of the display **130** presenting the indication UI element **149**.
- (22) In some embodiments, in response to detecting the single input corresponding to the request from the user **120** to activate the communications-hub mode **100**, the wrist-wearable device **110** ceases to display the representation of the watch face, and displays, on the display of the wristwearable device **110**, a first aggregated UI associated with the communications-hub mode **100**, which in this example is the aggregated messaging UI 160 (in other embodiments, the aggregated contacts or call log UIs can be displayed first within the communications-hub mode). In some embodiments, displaying the aggregated messaging UI 160 includes displaying (i) a first message UI element **167**A that includes data from a first message received via the first messaging application **165**A and (ii) a second message UI element **167**B that includes data from a second message received via the second messaging application **165**B. In some embodiments, the wristwearable device **110** also includes a third messaging application **165**C, distinct from the first and second messaging applications 165A and 165B, respectively, and displaying the aggregated messaging UI **160** also includes displaying a third message UI element **167**C that includes data from a third message received via the third messaging application **165**C. In some embodiments, the wrist-wearable device 110 receives message updates from the first and second messaging applications **165**A and **165**B (and all other user accounts **609** associated with the wrist-wearable device **110** (as described below in reference to FIGS. **6**A-**6**C)). More specifically, once a messaging

- application **165** (and/or a user account **609**) is associated with the wrist-wearable device **110**, the wrist-wearable device **110** will start to receive updates from the messaging application **165** (and/or the user account **609**). The updates can be sent asynchronously to the wrist-wearable device **110**. In some embodiments, each update can include one or more messages, audio and/or video calls, and/or other status information. While the wrist-wearable device **110** is in the communications-hub mode, the wrist-wearable device can sort and smartly insert data related to the updates that include the one or more messages, audio and/or video calls, and/or other status information into the corresponding UIs as described herein.
- (23) In some embodiments, the one or more messaging applications **165** are associated with one or more user accounts **609** (FIGS. **6**A-**6**C), such that for each messaging application electronic messages can be sent and received via a respective user account. The generation and aggregation of UI elements for multiple user accounts and multiple messaging applications **165** (including for multiple user accounts associated with a single one of the messaging applications **165**) is discussed below in reference to FIGS. **6**A-**6**C and FIGS. **8**A-**8**E.
- (24) In some embodiments, the aggregated messaging UI 160 provides an indication UI element 149 for each of the messages included within the aggregated messaging UI (in some embodiments, the message data is displayed in reverse chronological order, such that most recently received messages are displayed first in the list of messages within the aggregated messages UI 160). In some embodiments, the indication UI element 149 guides a user to new or unread messages. For example, as shown in FIG. 1C, the first message UI element 167A and the second message UI element 167B include indication UI elements 149A and 149B, respectively, that notify the user 120 that the messages are new and/or unread. As further discussed below in reference to FIG. 2, the user 120 can access or receive one or more messages, respond to one or more messages, and/or initiate one or more new messages via the aggregated messaging UI 160 while the communications-hub mode is active at the wrist-wearable device 110.
- (25) In some embodiments, the respective UI elements for messages received from the first messaging application **165**A, the second messaging application **165**B, and the third messaging application **165**C are distinct from one another. For example, as shown in FIGS. **1**C-**1**E, the UI elements are visually distinct from one another. In particular, each messaging application **165** can have a distinct icon **169** as shown for each of the icons for the first messaging application **165**A, the second messaging application **165**B, and the third messaging application **165**C. As discussed below in reference to FIGS. **6**A-**6**C, the one or more messaging applications **165** are associated with one or more user accounts **609** that a user has activated for use in presenting aggregated data in conjunction with the communications-hub mode.
- (26) In some embodiments, the aggregated messaging UI **160** includes data from an additional message that is associated with a messaging conversation between the user 120 wearing the wristwearable device **110** and at least two other users distinct from the user **120**. For example, as shown in FIG. **1**C, the third message UI element **167**C that includes data from the third message received via the third messaging application **165**C includes an identifier for at least two other users (e.g., "Jerry A." and "Dan"). Messages including at least two other users distinct from the user **120** are considered group messages or group conversations. In some embodiments, depending on the length of the individual user's name, more than two users or less than two users can be displayed in the third message UI element **167**C. In some embodiments, names of the at least two other users distinct from the user **120** are abbreviated. In some embodiments, a portion of a message received from the at least two other users distinct from the user **120** is provided to the user **120** via the message UI element **167**. As such, the aggregated messaging UI **160** of the communications-hub mode can display messaging data for both conversation threads between just two user accounts (e.g., a first user account for a user of the wrist-wearable device and a second user account for one other user of a device other than the wrist-wearable device) and for group conversation threads involving three or more user accounts.

- (27) In some embodiments, the aggregated messaging UI **160** includes a UI element for creating a new message **170**. Additional detail on the UI element for creating a new message **170** is described below in reference to FIG. **2**.
- (28) In some embodiments, the indication UI element **149**C guides the user **120** to performing one or more inputs to access a next aggregated UI in a sequence of aggregated UIs for the communications-hub mode (in this example, the next aggregated UI in the sequence is the aggregated call log UI **180** that is accessible via a single input from within the aggregated messaging UI **160**, which enables easy and quick navigation between multiple different aggregated UIs while the communications-hub mode is active). For example, as shown in FIG. **1D**, the aggregated messaging UI **160** provides the user **120** with indication UI element **149**C that notifies the user **120** of the availability of an aggregated call log UI **180** such as by indicating availability of data associated with new calls, missed calls, and/or voicemails.
- (29) In some embodiments, while displaying the aggregated messaging UI 160, the wrist-wearable device 110 detects another single input (e.g., a left-to-right swipe gesture across display 130) from the user 120 wearing the wrist-wearable device 110. The other single input corresponds to a request (represented in this example by a sliding gesture in which an input moves from position 150C to position 150D on the display of the wrist-wearable device as is shown in FIGS. 1D and 1E) from the user 120 to access an aggregated call log UI 180. In response to detecting the other single input corresponding to the request from the user 120 to access the aggregated call log UI 180, the wrist-wearable device 110 ceases to display the aggregated messaging UI 160 and displays, on the display of the wrist-wearable device 110, the aggregated call log UI 180 (this occurs while the wrist-wearable device remains in the communications-hub mode).
- (30) Displaying the aggregated call log UI **180** includes displaying (i) a fourth UI element (e.g., first call UI element 187A) that includes data associated with a first call received via a fourth messaging application **165**D, and (ii) a fifth UI element (e.g., second call UI element **187**B) that includes data associated with a second call received via a fifth messaging application **165**E. Calls received from the one or more messaging applications **165** can include both audio and/or video calls. In some embodiments, the aggregated call log UI **180** can also display a sixth UI element (e.g., a voicemail UI element **189**) that includes data from a voicemail received via a sixth messaging application **165**F. Although the examples of FIGS. **1**A-IF illustrate the first messaging application **165**A through the sixth messaging application **165**F as distinct messaging applications, in some implementations the messaging applications need not always be distinct. For example, the first and second messaging applications can be used as a source of the data that is aggregated into each of the aggregated messaging, call log, and contacts UIs (such that third, fourth, fifth, and sixth messaging applications are not utilized at all). In another example, the data that is aggregated into each of the aggregated messaging, call log, and contacts UIs can be associated with multiple user accounts for just a single messaging application (e.g., three different user accounts that a user uses for sending and receiving messages on a first messaging application, such as Instagram).
- (31) In some embodiments, the aggregated call log UI **180** also includes a UI element for initiating a new call **190** as described below in more detail in reference to FIG. **3**.
- (32) In some embodiments, the aggregated call log UI **180** includes an indication UI element **149** for each recently received or missed calls or voicemails. For example, as shown in FIG. **1**F, the first call UI element **187**A includes indication UI element **149**D notifying the user **120** that the call is new and/or missed. As further discussed below in reference to FIG. **3**, the user **120** can access or receive one or more calls or voicemails, respond to one or more calls or voicemails, and/or initiate one or more calls directly from the aggregated call log UI **180** while the communications-hub mode is active.
- (33) In some embodiments, the respective call UI elements **187** and voicemail UI elements **189** are distinct from one another. For example, the first call UI element **187**A and the second call UI element **187**b are displayed with a first visual characteristic, and the voicemail UI element **189** is

displayed with a second visual appearance that is distinct from the first visual characteristic. The one or more visual characteristics can include one or more font color, font emphasis, thumbnail, icon, marker, image, etc., such that video and audio calls can have a first font color, font emphasis, or other visual characteristic, while voicemails have a different font color, font emphasis, or other visual characteristic. This assists users 120 with having sustained interactions with the communications-hub mode of the wrist-wearable device 110 as they do not need to waste time searching for voicemails either in different applications or even within the aggregated call log user interface 180 itself as the voicemails are displayed using the second visual characteristic that makes them easy to spot quickly, even when displayed among other call records and associated UI elements. Examples of the visual differences between the UI elements are provided below in reference to FIGS. 4A-4D. In some embodiments, the respective message UI elements 167 are distinct from the call UI elements 187 and voicemail UI elements 189 as shown and described in FIGS. 2 and 5A-5C.

- (34) As mentioned above, the communications-hub mode can enable access to a sequence of aggregated UIs, including two or more of an aggregated messaging UI, aggregated call log UI, and aggregated contacts UI. The sequence in which each of the aggregated UIs is made available within the communications-hub mode can be configurable such that a user is able to determine an order in which the aggregated UIs are made available in the sequence. By including multiple different aggregated UIs in one communications-hub mode, users are guided through access to messaging data from either or both of multiple messaging applications and multiple user accounts associated with one or multiple of those messaging applications, thus avoiding the need to jump between different messaging applications and/or to have to log in and out of different user accounts to access messaging data from the various user accounts associated with a user of the wrist-wearable device.
- (35) FIGS. 1G-1J illustrate user interaction with aggregated UIs available in the communicationshub mode at a portable device 113, in accordance with some embodiments. The portable device 113 can include one or more displays 130 (e.g., a touch screen), speakers, microphones, imaging devices, and sensors (e.g., one or more sensors described below in reference to FIG. 11). Additional information on the portable device 113 is provided below in reference to FIGS. 10C, 10D, and 11. The portable device 113 can be communicatively coupled with the wrist-wearable device 110 and/or other intermediary devices described above. The portable device 113, similar to the wrist-wearable device 110 described above in reference to FIGS. 1A-1F, is configured to activate a communications-hub mode 100 that provides the user 120 access to two or more of an aggregated messaging UI 160, an aggregated call log UI 180, and an aggregated contacts UI 250 (FIGS. 2 and 3).
- (36) In some embodiments, the communications-hub mode **100** is activated at the portable device **113** in response to a detected user input at the portable device **113**. For example, as shown in FIGS. **1**G and **1**H, the portable device **113** can present, via display **130**, a home UI **151**, and, responsive to a user input (e.g., a sliding gesture (represented by gesture **150**A)), the portable device **113** can cause the communications-hub mode **100** to activate. When the communications-hub mode **100** is active, the portable device **113** is caused to present an aggregated messaging UI **160** as shown in FIG. **1**I and/or any other UIs described above in reference to FIGS. **1**A-IF. The home UI **151**, similar to the watch-face UI **140**, can include general information that would be useful to the user **120**, such as a greeting, a date, a time, the temperature, and/or other information described above in reference to FIG. **1**A.
- (37) Alternatively or in addition, in some embodiments the communications-hub mode **100** is caused to activate on the portable device **113** when the user **120**'s focus switches from an intermediary device with an active communications-hub mode **100** to the portable device. For example, while the communications-hub mode **100** is active on the wrist-wearable device **110** and the user **120**'s focus changes from the wrist-wearable device **110** to the portable device **113**, the

communications-hub mode **100** is caused to activate on the portable device **113** to allow the user **120** to seamlessly continue using the communications-hub mode **100** on the portable device **113**. In some embodiments, operations between the wrist-wearable device **110** and the portable device **113** (and/or any other intermediary device) automatically switched based on the respective device that the user **120** is focused on. A determination that the user **120** is focused on a particular device can be based on user interaction with a particular device; user proximity to a respective device; manual selection of a particular device by the user; or a determination, based on sensor data from one or more sensors, that a particular device is within the user **120**'s field of view.

- (38) As shown in FIG. **1**J, the aggregated messaging UI **160** can be used to access message UI **161**. The message UI **161** can be used to receive and/or send one or more messages to other users. The above examples are nonlimiting. Additional details on the message UI **161** are provide below in reference to FIGS. **2-8**E.
- (39) FIG. **2** illustrates a guided human-machine interaction process based on detected user input in an aggregated messaging UI while the communications-hub mode is active, in accordance with some embodiments. FIG. 2 shows an aggregated messaging UI 160, an aggregated contacts UI 250, and a message UI **270**. The wrist-wearable device **110** provides, via its display **130**, the aggregated messaging UI **160** in response to a detected single input (e.g., an input that moves, on a watch-face UI **140**, from position **150**A to position **150**B across the display **130**; FIGS. **1**A-**1**F) corresponding to a request from the user **120** to access the aggregated messaging UI **160**. In providing the aggregated messaging UI 160, the wrist-wearable device 110 ceases to display the watch-face UI **140** while activating a communications-hub mode and displays a first aggregated UI in a sequence of aggregated UIs of the communications-hub mode, which in this example is an aggregated messaging UI that includes one or more message UI elements associated with one or more messaging applications **165**. As described above in reference to FIGS. **1**A-IF, in some embodiments the wrist-wearable device **110** includes one or more messaging applications **165** and/or is associated with a computing device **115** that includes one or more messaging applications. In some embodiments, the wrist-wearable device **110** provides, via its display **130**, the aggregated messaging UI 160 in response to a detected single input corresponding to a request from the user **120** to access the aggregated messaging UI **160** from an aggregated call log UI **180**. For example, a user 120 can request to return from the aggregated call log UI 180 shown in FIG. 1F to the aggregated messaging UI 160 shown in FIGS. 1C-1E.
- (40) FIG. 2 provides more detail regarding the aggregated messaging UI of the communicationshub mode, including depicting more information concerning each of the message UI elements **167** and also showing that the aggregated messaging UI is scrollable to allow the user of the wristwearable device to scroll to view additional message UI elements **167** available within the aggregated messaging UI. In particular, FIG. 2 shows a detailed view of the aggregated messaging UI **160** and the different UI elements described in reference to FIGS. **1**A-IF (e.g. the first through third message UI elements **167**A-**167**C and the first through messaging application **165**A-**165**C). In some embodiments, the data from the messages includes one or more of a contact's name (e.g., "Clive Cross"; i.e., a person receiving or sending a message), a portion of the message (e.g., a shown portion of the message 205 "Hey Buddy"), a graphical icon representing the messaging application **165** with which the messages was received or sent (e.g., a graphical icon showing a message with a cloud, lightning bolt, or conversation bubble), a textual description of a messaging application with which the message was received or sent (e.g., "Mobile" in element 205, a social media platform (or platform) application in element 276), and a textual and/or graphic indication as to a user account of the user of the wrist-wearable device that received or sent the message via a respective messaging application (e.g., "User Account 2" in element 276, "User Account 1" in element 277).
- (41) In some embodiments, sent and received messages are aggregated into a message UI element **167**. For example, a message can include a first set of one or more messages received via a

messaging application **165** (e.g., received message UI element **273**), and a second set of one or more messages sent via the same or a different messaging application **165** (e.g., sent message UI element **275**) that are aggregated into a single message UI element **167** (e.g., as shown by message UI element **233**). As shown in FIG. **2**, a message UI element corresponding to a conversation with "Kelly Silva" (e.g., message UI element **233**) includes aggregated messages received and sent via a messaging application **165** associated with a fifth platform and associated with User Account 1 (as shown in message UI **270**). In some embodiments, data could be aggregated from multiple user accounts from just one message application (e.g., the communications-hub mode can aggregate data from two or more user accounts associated with a first messaging application associated with a first social media platform).

- (42) In some embodiments, the data included in a respective message UI element includes a rich attachment that is displayed directly within the aggregated messaging UI **160**. For example, in FIG. **2** the second message UI element **167**B includes a rich attachment UI element **276**. In some embodiments, the rich attachment includes one or more of a link (e.g., a URL, a shopping advertisement), a thumbnail, and an application launcher (e.g., a map application, a store application). In some embodiments, the rich attachment UI element **276** can be interacted with directly from the aggregated messaging UI **160**. For example, the user **120** can select the rich attachment UI element **276** from the aggregated messaging UI **160**, which causes the wrist-wearable device **110** to present data corresponding to the rich attachment UI element **276**. Alternatively, in some embodiments the rich attachment UI element **276** is a UI element for a respective message within a message UI **270**, which is individually interacted with via the message UI **270**.
- (43) In some embodiments, user input selecting a rich attachment UI element 276 (e.g., user input **277**) or input directly from the aggregated messaging UI **160** corresponds to a request from the user **120** to access a rich attachment UI element **276**. In response to the request to access the rich attachment UI element **276**, the wrist-wearable device **110** ceases to display the message UI **270** or the aggregated messaging UI **160**, and displays, on its display **130**, a UI corresponding to the rich attachment. Displaying the UI corresponding to the rich attachment includes displaying one or more of an application associated with the rich attachment (e.g., a social media application, a map application, a shopping application) and a webpage associated with the rich attachment (e.g., a web-based article, a web-based journal, a web-based shopping store). Alternatively, in some embodiments, in response to the request from the user **120** to access the rich attachment UI element **276**, the wrist-wearable device **110** is granted access to a document, a server, and/or a database and the wrist-wearable device **110** displays to the user **120** UI including the document, the server, and/or the database. For example, a rich attachment UI element **276** can grant the user **120** access to a shared work platform that allows the user **120** to view and edit a document with other users, and selection of the rich attachment UI element **276** causes the wrist-wearable device **110** to present to the user 120 the document on the shared work platform.
- (44) In some embodiments, while displaying the aggregated messaging UI **160**, the wrist-wearable device **110** detects an input from the user **120** wearing the wrist-wearable device **110**, with such input corresponding to a request from the user **120** to access a message that is associated with a rich attachment (e.g., rich attachment **276**). The wrist-wearable device **110**, in response to detecting the input corresponding to the request from the user to access the message including the rich attachment, ceases to display the aggregated messaging UI **160** and displays, on the display of the wrist-wearable device **110**, a UI for the messaging application (e.g., message UI **270** shown at the bottom of FIG. **2**). Displaying the UI for the messaging application includes displaying (i) a respective UI element for each message of a first set of one or more messages received via the first messaging application and (ii) a rich-attachment UI element for a rich attachment associated with the message. For example, input **257** on a contact UI element for "Kelly Silva" (corresponding UI element **233**) can cause the wrist-wearable device **110** to display the message UI **270**, which

includes a rich attachment UI element **276**. The message UI **270** is discussed in detail below. (45) In some embodiments, the user **120** wearing the wrist-wearable device **110** has two or more different user accounts **609** for receiving messages via the first messaging application **165**. In some embodiments, the aggregated messaging UI **160** also includes a message UI element **167** that includes at least part of a third message received via the first messaging application **165**, the third message being sent to a first of the two different user accounts via the first messaging application and the first message being sent to a second of the two different user accounts via the first messaging application.

(46) The aggregated messaging UI 160 can also be scrollable, such that a user initially views a first

- portion **160**A of the aggregated messaging UI **160** and, in response to a scrolling input (e.g., an input that moves across the display **130** from a position at the bottom of the aggregated messaging UI **160** to a position at the top of the aggregated messaging UI **160**), the aggregated messaging UI is scrolled to reveal at least part of the second portion **160**B of the aggregated messaging UI and at least part of the first portion of the aggregated messaging UI **160** is ceased from being displayed on the display of the wrist-wearable device **110**. In response to the scrolling input, the aggregated messaging UI 160 is scrolled to display the second portion 160B of the aggregated messaging UI **160** (e.g., line **213** can represent a screen size of a wrist-wearable device **110**, in accordance with some embodiments). In some embodiments, a UI element for creating a new message **170**A included in the first portion **160**A of the aggregated messaging UI **160** is repositioned (as shown by repositioned UI element for creating a new message **170**B) when the aggregated messaging UI **160** is adjusted (i.e., to display the second portion **160**B of the aggregated messaging UI **160**). The scrolling feature described above can be implemented in each UI described herein. (47) In some embodiments, the wrist-wearable device **110** displays, within the aggregated messaging UI **160**, a UI element **170**B for initiating the creation of a new message directly from the aggregated messaging UI **160**. The wrist-wearable device **110**, in response to detecting a selection of the UI element for creating a new message **170**, ceases to display the aggregated messaging UI **160** and displays, on its display **130**, an aggregated contacts UI **250**. For example, the wristwearable device **110** can detect an input **225** to the UI element for creating a new message **170**, which causes the aggregated contacts UI **250** to be displayed. Displaying the aggregated contacts UI **250** includes displaying a plurality of contacts UI elements **255** corresponding to a plurality of contacts associated with the one or more messaging applications 165. In some embodiments, the plurality of contacts is obtained from one or more user accounts **609** that are currently active (or enabled) on the wrist-wearable device **110**. Alternatively, in some embodiments, a plurality of aggregated contacts UIs **250** are prepared and displayed, each aggregated contacts UI **250** including contacts for a particular messaging application **165**. For example, a first aggregated contacts UI **250** can include one or more contacts associated with a first messaging application and a second aggregated contacts UI 250 can include one or more contacts associated with a second messaging application. Each aggregated contacts UIs **250** of the plurality of aggregated contacts UIs **250** can be presented, via the display 130, individually. In some embodiments, a user can switch between the plurality of aggregated contacts UIs **250** by providing a left-to-right (or right-to-left) swipe gesture across display **130**.
- (48) In some embodiments, as discussed below in reference to FIGS. **6**A-**6**C, in response to detecting a selection of the UI element for creating a new message **170**, a processor of the wrist-wearable device **110** makes a determination as to whether more than one user account is active for the communications-hub mode. In accordance with a determination that one user account is active, the device **110** proceeds with initiating creation of the new message using the one user account that is currently active. In accordance with a determination that two different user accounts **609** are active (e.g., two user accounts for one messaging application or two user accounts for two different applications, or both), the wrist-wearable device **110** can then present selectable options to allow the user to select which of the active user accounts should be used in conjunction with initiating the

creation of the new message. This is discussed in more detail below in reference to FIGS. **6**A**-6**C. (49) After the determination above, the aggregated contacts UI **250** can be presented, and it can include a search UI element **260**. The wrist-wearable device **110**, in response to detecting selection of the search UI element **260**, allows the user **120** to search for contacts associated with messaging applications on the wrist-wearable device **110** and/or contacts associated with one or more user accounts **609** that are currently active for the communications-hub mode on the wrist-wearable device **110**. Additionally or alternatively, in some embodiments the request from the user **120** to access the search UI element 260 allows the user 120 to search one or more messages that were received and/or sent via the one or more messaging applications **165**. In some embodiments, the aggregated contacts UI 250 includes a close UI element 230 (represented by an "X") that, when selected by the user **120**, causes the wrist-wearable device **110** to cease displaying the aggregated contacts UI **250** and to switch back to displaying the aggregated messaging UI **160** if no contact was selected. Alternatively, if at least one contact is selected before the close UI element **230** is selected, the wrist-wearable device **110** will cease displaying the aggregated contacts UI **250** and display a message UI 270 corresponding to the selected contact (and user account associated with a respective messaging application). If a previous message thread exists, the wrist-wearable device **110** presents a message UI **270** corresponding to the existing thread. If a previous message thread does not exist, the wrist-wearable device 110 creates a new thread and a new message UI 270 for the selected contact.

(50) Returning to the aggregated messaging UI **160** shown in FIG. **2**, in some embodiments, while displaying the aggregated messaging UI **160**, the wrist-wearable device **110** detects an input from the user **120** wearing the wrist-wearable device **110** to access a particular message. For example, the user **120** can provide an input corresponding to a request to access a message thread or conversation corresponding to the message UI element 233. In response to detecting the request from the user **120** to access the message, the wrist-wearable device **110** ceases displaying the aggregated messaging UI 160 and displays, on its display 130, a message UI 270. In some embodiments, the message UI **270** includes displaying a respective UI element for each message of a first set of one or more messages received via a messaging application 165 (e.g., received message UI element 273) and a respective UI element for each message of a second set of one or more messages sent via the messaging application (e.g., sent message UI element 275). In some embodiments, one or more messages of the first set of one or more messages received via the messaging application and/or one or more messages of the second set of one or more messages sent via the messaging application include rich attachments (e.g., rich attachment UI element 276). (51) In some embodiments, the user **120** can access a message UI **270** for a corresponding messaging application **165** (and user account **609** associated to the messaging application **165**) via an input detected in a displayed aggregated contacts UI **250**. For example, a detected input **257** selecting the contact UI element for "Kelly Silva" (corresponding contact UI element 233) causes the wrist-wearable device **110** to display the message UI **270** for the messaging application **165** through which the underlying message was received or sent. In some embodiments, the user 120 can select a header of the message UI **270**, such as "Kelly Silva," which causes the wrist-wearable device **110** to display details of the thread (e.g., participants of the chat and each participant's associated account and messaging application **165** (represented by a graphical icon)). (52) In some embodiments, the respective UI elements for each message of the first set of one or more messages received via the messaging application is a first color and the respective UI elements for each message of the second set of one or more messages received via the messaging application is a second color. In some embodiments, the color of the respective UI elements is based on the user associated with the message of the first set or the second set of messages. In some embodiments, the colors for received messages and sent messages, respectively, are based on the messaging application **165**. For example, a first messaging application **165** can have a first color for received messages (e.g., white) and a second color for sent messages (e.g., blue), and a second

messaging application **165** can have the first color for received messages and a third color for sent messages (e.g., teal).

- (53) In some embodiments, the message UI **270** includes one or more UI elements that are configured to perform an action. The wrist-wearable device **110**, while displaying the message UI **270**, detects an input from the user **120** wearing the wrist-wearable device **110**, the input corresponding to a request from the user **120** to perform an action. The wrist-wearable device **110**, in response to detecting the request corresponding to the request from the user **120** to perform the action corresponding to a predetermined UI element, performs the action using the messaging application **165**. The one or more UI elements that are configured to perform an action can include one or more of an audio capture UI element **278**, an image capture UI element **279**, a call-initiation UI element **280**, one or more predetermined text inputs (represented by UI elements **281**A and **281**B), a keyboard display UI element **282**, and a send location UI element **283**.
- (54) As a nonlimiting example, in response to the wrist-wearable device **110** detecting a request from the user **120** to capture audio data (e.g., via the audio capture UI element **278**), the wristwearable device 110 captures user audio data using microphone 1197 (FIG. 11) included in the wrist-wearable device 110. In some embodiments, the wrist-wearable device 110 transcribes the captured audio data. In some embodiments, the wrist-wearable device **110** sends, via the corresponding messaging application **165**, one or more of the audio data, the audio data and the transcript, or only the transcript to one or more other users (e.g., to user Kelly Silva in the example depicted for message UI **270**). In some embodiments, the user is prompted to select whether to send the audio data only, the audio data and the transcript, or only the transcript to one or more other users. Alternatively or additionally, in some embodiments the device **110** is configured to conduct a determination to assess quality of the captured audio data and to then determine whether to send the transcript based on that determination. In particular, in accordance with a determination that the captured audio data is of poor quality (e.g., inaudible, missing portions, or having too much background noise), the wrist-wearable device **110** can then send only the transcript to the one or more other users. On the other hand, in accordance with a determination that the captured audio data is not of poor quality, then the wrist-wearable device **110** can then send, via the corresponding messaging application **165**, the audio data and the transcription together so receiving users know that the message was transcribed through audio data.
- (55) In response to the wrist-wearable device **110** detecting a request from the user **120** to capture image data (e.g., via the image capture UI element **279**), the wrist-wearable device **110** captures user image data (e.g., video or images) using the wrist-wearable device **110**'s own imaging device **147**. In some embodiments, the wrist-wearable device **110** also captures audio data using microphone **1197** included in the wrist-wearable device **110** in conjunction with the capturing of video data. In some embodiments, the wrist-wearable device **110** sends, via the corresponding messaging application **165**, one or more of the image data, the image data and the audio data, and the image data and a transcript based on the audio data (with or without the audio data) to one or more other users.
- (56) In response to the wrist-wearable device **110** detecting a request from the user **120** to initiate a call (e.g., via the call-initiation UI element **280**), the wrist-wearable device **110** sends, via the messaging application **165**, a call-initiation request to one or more other users (that the user selected to initiate a call with). As discussed in detail below in reference to FIGS. **5A-6C**, the user **120** can select one or more user accounts **609** associated with the messaging application **165** to initiate the call by selecting a respective contact number of the one or more other users to initiate a call with (if applicable) and/or selecting whether to initiate an audio or video call. In some embodiments, the user can switch between audio and/or video data while the call is ongoing. (57) In response to the wrist-wearable device **110** detecting a request from the user **120** to input a predetermined text message (represented by UI elements **281**A and **281**B), the wrist-wearable device **110** sends the predetermined text message associated with the predetermined text UI

- elements **281**A and **281**B. For example, the user **120** selecting the "Not bad" predetermined text UI element **281**A causes the wrist-wearable device **110** to send, via the messaging application **165**, "Not bad" to one or more other users. In some embodiments, the predetermined text is based on one or more messages in the message UI **270**. In particular, machine-learning can be performed based on the content of messages in a message thread to determine an appropriate response for the user **120**.
- (58) Alternatively, in some embodiments, in response to the wrist-wearable device **110** detecting a request from the user **120** to display a keyboard (e.g., keyboard display UI element **282**), the wrist-wearable device **110** displays, on its display **130**, a keyboard that can be used by the user **120** to prepare a response that is sent using a messaging application **165**. In some embodiments, the request from the user **120** to display a keyboard causes the wrist-wearable device **110** to display a keyboard on another display associated with the wrist-wearable device **110** (e.g., a display on AR glasses **117** or computing device **115**).
- (59) In response to the wrist-wearable device **110** detecting a request from the user **120** to send his or her location (e.g., via the send location UI element **283**), the wrist-wearable device **110** sends, via the messaging application **165**, his or her current location (determined using GPS **1116** or other similar devices) to one or more other users. This allows the user **120** to easily find and meet with his or her friends, colleagues, and/or other contacts.
- (60) While the message UI **270** shows a single recipient for the illustrated example of FIG. **2**, the skilled artisan will appreciate that aspects of UIs shown in FIG. **2** can also be performed for message threads including multiple recipients (e.g., group messages).
- (61) In some embodiments, the aggregated messaging UI **160** provides an indication **249** to the user **120** that the aggregated call log UI **180** is available via another single input. The indication **249** is similar to indication **149** described above in FIGS. **1**A-IF and is configured to guide the user **120** to additional data available to them.
- (62) FIG. **3** illustrates a guided human-machine interaction process based on detected user input in an aggregated call log UI while the communications-hub mode is active, in accordance with some embodiments. FIG. **3** shows an aggregated messaging UI **160**, an aggregated call log UI **180**, an aggregated contacts UI 250, a call option UI 350, a call-initiation UI 370, and ongoing call UIs **380**A and **380**B. In some embodiments, the wrist-wearable device **110** provides, via its display **130**, the aggregated call log UI **180** in response to a detected input that moves between position **150**C to position 150D (e.g., a left-to-right swipe gesture across display 130), with the detected input corresponding to a request from the user **120** to access the aggregated call log UI **180** from the aggregated messaging UI **160** as was described above in reference to FIGS. **1**A-**1**E. In providing the aggregated call log UI **180**, the wrist-wearable device **110** ceases to display the aggregated messaging UI **160** while continuing to remain in the communications-hub mode in which access to the aggregated UIs (contacts, messaging, and call log) is provided. The aggregated call log UI **180** displays to the user **120** one or more call UI elements **187** and voicemail UI elements **189** from one or more messaging applications **165** (and/or from user accounts enabled for use with the communications-hub mode, which user accounts are associated with one or more of the messaging applications) as described above in reference to FIGS. **1**A-**1**F.
- (63) The aggregated call log UI **180** includes at least a first call UI element **187**A that includes data from a first call received via a fourth messaging application **165**D and a second call UI element **187**B that includes data from a second call received via a fifth messaging application **165**E included in the wrist-wearable device **110**. In some embodiments, the aggregated call log UI **180** includes a voicemail UI element **189** that includes data from a voicemail received via a sixth messaging application **165**F. In some embodiments, the call UI elements **187** and the voicemail UI elements **189** are presented to the user **120** in order (from top to bottom of the display **130**) from the most recent calls or voicemails received and/or sent to the oldest calls or voicemails received and/or sent. In some embodiments, the data from the calls and voicemails includes UI elements for

one or more of an icon associated with a messaging application **165** (which received the call or voicemail, or initiated the call), a textual description of the messaging application associated with the call log entry **309** (e.g., mobile **309**A, social media platform 1 **309**B, user account 2), a caller's (or call recipient's) name (e.g., "Jake Erazo"), and an indication as to whether the call was an audio call, video call, or voicemail. The textual description of the messaging application associated with the call log entry **309** includes user account information similar to the user accounts **609** described in detail below in reference to FIGS. **6**A-**6**C.

- (64) In some embodiments, each call UI element **187** is associated with a respective favorites UI element. The favorites UI element, when selected, causes an associated call UI element to be presented (or pinned) near the top of the aggregated call log UI **180** (or other aggregated UI described herein). For example, the first call UI element **187**A is associated with a selected favorites UI element (e.g., solid heart UI element **377**), which causes the first call UI element **187**A to be presented at the top of the aggregated call log UI **180**. An unselected favorites UI element is represented by a broken-line heart UI element **379**.
- (65) In some embodiments, one or more calls (or voicemails) are aggregated into a single UI element 187 of the aggregated call log UI 180. For example, the aggregated call UI element 315 for "Ernie James" aggregates two calls from Ernie James as noted by the counter "(2)." The aggregated calls can be either video calls, audio calls or both. In some embodiments, calls (or voicemails) with data for the same contact are aggregated into an aggregated call UI element **315**. For example, calls received from the same contact but from different messaging applications **165** can be combined into an aggregated call UI element **315**. Alternatively, in some embodiments the calls need to be from the same contact and received by the same messaging application **165** to be combined into an aggregated call UI element 315. For example, calls received from the same contact via a first messaging application 165 are combined into an aggregated call UI element 315, but a call received from the same contact via a second messaging application is not combined with the calls received by the first messaging application **165**. In some embodiments, calls from different user accounts associated with the same messaging application **165** to be combined into an aggregated call UI element **315**. For example, calls received from a first and second user account that are each associated with a first messaging application **165** are combined into an aggregated call UI element, but a call received from the first user account and associated with a second messaging application is not combined with the calls received by the first messaging application **165**. Alternatively, in some embodiments the calls need to be from the same contact and received by the same user account associated to be combined into an aggregated call UI element 315. For example, calls received from the same contact via a first user account that used in conjunction with a first and a second social media platform application **165** are combined into an aggregated call UI element, but a call received from the same contact via a second user account used in conjunction with the first or the second social media platform application is not combined with the calls received via the first user account. Although the examples provided above are for calls and/or voicemails received by the one or more messaging applications **165**, message UI elements **167** can also be aggregated into an aggregated message UI element of the aggregated messaging UI **160** described herein. In some embodiments, the user defines how the different messages are aggregated.
- (66) In some embodiments, the aggregated call log UI **180** can also be scrollable, such that a user initially views a first portion **180**A of the aggregated call log UI **180** and, in response to a scrolling input (e.g., an input that moves across the display **130** from a position at the bottom of the aggregated call log UI **180** to a position at the top of the aggregated call log UI **180**), the aggregated call log UI **180** is scrolled to reveal at least part of second portion **180**B of the aggregated call log UI **180** and at least part of the first portion **180**A of the aggregated call log UI **180** is ceased from being displayed on the display of the wrist-wearable device **110**. As described above in reference to FIG. **2**, in some embodiments one or more UI elements are repositioned (e.g., as shown by repositioned UI element for UI element for initiating a new call **190**B) when the

aggregated call log UI **180** is adjusted.

- (67) In some embodiments, while displaying the aggregated call log UI **180**, the wrist-wearable device **110** detects an input **325** from the user **120** wearing the wrist-wearable device **110**, with such input **325** corresponding to a request from the user **120** to initiate a new call (e.g., user input **325** selecting the UI element for initiating a new call **190**A). The wrist-wearable device **110**, in response to the user's request to initiate the new call, guides the user to a call option UI 350 (discussed in detail below). In particular, in response to detecting the user's request to initiate the new call, the wrist-wearable device **110** ceases to display the aggregated call log UI **180** and displays, on its display **130**, the call option UI **350**. Displaying the call option UI **350** includes displaying one or more call option UI elements, such as a contacts access UI element **353** and a keypad access UI element **355**. In some embodiments, in response to detecting a user input selecting the keypad access UI element **355**, the wrist-wearable device **110** presents a keypad that allows the user **120** to enter a phone number or account identifier of one or more other users that the user **120** would like to call via a messaging application **165**. In response to detecting a user input 357 selecting the contacts access UI element 353, the wrist-wearable device 110 ceases to display the call option UI 350 and displays, on its display 130, the aggregated contacts UI 250 (described above in reference to FIG. 2) as shown in the sequence of UIs depicted in FIG. 3. (68) Alternatively, in some embodiments a user can access the aggregated contacts UI **250** from the aggregated call log UI **180** in response to a detected gesture (e.g., a long press on the UI element for initiating a new call 190). More specifically, in some embodiments, while displaying the aggregated call log UI 180, the wrist-wearable device 110 detects a gesture from the user 120 on the UI element for initiating a new call 190 and, in response to detecting the gesture, the wristwearable device **110** ceases to display the aggregated call log UI **180** and displays, on its display **130**, the aggregated contacts UI **250**.
- (69) In some embodiments, the user **120** initiates a call at the wrist-wearable device **110** using one or more call UI elements **187** and one or more voicemail UI elements **189**. In particular, while displaying the aggregated call log UI **180**, the wrist-wearable device **110** detects a selection of a call UI elements **187** or a voicemail UI element **189**, and, in response to detecting the selection, initiates a call via the corresponding messaging application 165 (or retrieves the corresponding voicemail, as appropriate depending on whether a voicemail UI element 189 was selected). In this way, the wrist-wearable device **110** provides a guided or sustained human-machine interaction that allows the user 120 to quickly initiate calls from within the aggregated call log UI 180 of the communications-hub mode, such that the user **120** does not need to separately open up a messaging application **165** to initiate the call but can instead initiate the call directly from within the communications-hub mode. As described above in reference to FIGS. 1A-1J, in some embodiments one or more messaging applications 165 for sending and/or receiving one or more messages are the same as the messaging applications for receiving and/or initiating calls and/or receiving voicemails. For example, a first messaging application for sending and receiving one or more messages can also be used to receive one or more calls and voicemails and initiate one or more calls. (70) In some embodiments, while displaying the aggregated call log UI **180**, the wrist-wearable device **110** detects an input **327** from the user **120** wearing the wrist-wearable device **110**, the input **327** corresponding to a request from the user **120** to call the contact associated with call UI element **315**. In some embodiments, the user **120** can request to call a group of other users and/or join (i.e., merge) multiple calls via the wrist-wearable device **110**. The wrist-wearable device **110**, in response to detecting the input **327**, ceases displaying the aggregated call log UI **180** and displays the call-initiation UI **370**. In some embodiments, the wrist-wearable device **110** detects user input at an aggregated UI element (e.g., aggregated call UI element 315) for another user including at least two calls and, in response to detecting the user input, presents at the wrist-wearable device **110** selectable options for initiating a video call or initiating an audio call to the same other user. For example, input 327 selecting contact "Ernie James" results in the display of call-initiation UI

- **370** corresponding to "Ernie James" to choose between a video call or an audio call.
- (71) The call-initiation UI **370** can also be presented in response to input at the aggregated contacts UI **250**, an example of which is also shown in FIG. **3** and described in detail above in reference to FIG. **2**. In particular, in some embodiments the wrist-wearable device **110** displays the call-initiation UI **370** in response to detection of a user input **367** requesting to call a contact (e.g., Ernie James UI element **363**) from within the aggregated contacts UI **250** while the aggregated contacts UI **250** is displayed. The call-initiation UI **370** is discussed in detail below.
- (72) Alternatively, in some embodiments the wrist-wearable device **110**, in response to detecting a user input requesting to call a contact in the aggregated contacts UI **250** or the aggregated call log UI **180**, transmits a call-initiation request to the corresponding contact without displaying the call-initiation UI **370**. In other words, in some embodiments the wrist-wearable device **110** automatically initiates a call when a contact in the aggregated contacts UI **250** or the aggregated call log UI **180** is selected. In some embodiments, the call is initiated using the same messaging application **165** that is associated with the underlying call. For example, if the contact called the user **120** via a first messaging application, the call initiated by the user **120** would be initiated using the first messaging application. The initiated call can be an audio call or a video call. Additional detail on the call initiation process is provided below in reference to FIGS. **5**A and **5**B.
- (73) In some embodiments, the call-initiation UI **370** includes one or more UI elements, such as a video call-initiation UI element **373** and a voice/audio call-initiation UI element **375**. In some embodiments, the wrist-wearable device **110**, in response to detecting a user input selecting the video call-initiation UI element **373**, initiates a video call with the corresponding contact (i.e., contact the user **120** selected to initiate a call with; e.g., "Ernie James"). In some embodiments, the wrist-wearable device **110**, in response to detecting a user input selecting the voice/audio call-initiation UI element **375**, initiates an audio call with the corresponding contact.
- (74) The wrist-wearable device **110**, in response to detecting a user input selecting either the video call-initiation UI element 373 or the voice/audio call-initiation UI element 375, ceases displaying the call-initiation UI **370** and displays, on its display **130**, the ongoing call UI **380**. The ongoing call UI 380 displays data corresponding to the contact selected by the user 120 to call and one or more additional UI elements, such as a mute UI element 383 and an end call UI element 385. In some embodiments, the ongoing call UI 380 notifies the user 120 whether the call has been connected or whether the wrist-wearable device **110** is attempting to connect. For example, as shown in a first ongoing call UI 380A, while the wrist-wearable device 110 is attempting to connect with a selected contact, the wrist-wearable device **110** can display an indication that the contact is being called. In some embodiments, as shown in the second ongoing call UI **380**B, the mute UI element **383** and the end call UI element **385** can be minimized or hidden to allow the user **120** full visibility of the display. In some embodiments, the wrist-wearable device **110** shows the mute UI element 383 and the end call UI element 385 in response to detected user input at the display **130**. As discussed in further detail below, the audio and/or video call can be performed using an imaging device 147, a microphone 1197, a speaker 1195, and/or the display 130 included in the wrist-wearable device **110**.
- (75) FIGS. **4**A-**4**D illustrate variations of UI (e.g., call UI elements **187**, FIG. **1**F) that can be displayed in the aggregated call log UI, in accordance with some embodiments. FIG. **4**A shows example variations of data included in call UI elements **187** corresponding to inbound missed calls (i.e., unanswered calls received by one or more messaging applications **165** (represented by the "X" mark) included in the wrist-wearable device **110** and/or portable device **113**, FIGS. **1**A-**1**J). In some embodiments, a first missed call UI element **401** represents a missed call at a messaging application **165** and can include the data corresponding to the first missed call UI element **401**, such as contact information (e.g., "Jake Erazo" in element **401**), a graphical icon representing the messaging application with which the call was received (e.g., graphical icon showing a phone in element **401**), a textual description of the messaging application with which the call was received

(e.g., "Mobile" in element **401**), and a textual and/or graphic indication as to a user account of the user of the wrist-wearable device that received the call via a respective messaging application (e.g., "User Account 1" in element **405**). In some embodiments, a second missed call UI element **403** represents a missed call at a messaging application **165** and the data corresponding to the second missed call UI element 403 includes contact information for an unknown caller (e.g., phone number or account information for an unknown caller) and location of the unknown caller (e.g., caller is from "San Francisco"). In some embodiments, a third missed call UI element **407** represents a missed call at a messaging application 165 and the data corresponding to the third missed call UI element 407 includes contact information (e.g., "Jake Erazo") and a messaging application and a user account associated with the contact of the messaging application (e.g., "Social media platform 1" and "User Account 2"). Each of the first, second and third missed call UI elements **401**, **403**, and **405** represent a missed audio call. Similarly, respective missed call UI elements can be used to represent missed video calls. For example, a fourth, fifth, and sixth missed call UI elements **407**, **409**, and **411** each represent a missed video call from one or more messaging applications **165** associated with the respective contact (and user account). The one or more messaging applications **165** can be the same or distinct messaging applications **165**. In some embodiments, the missed call UI elements are visually distinct from inbound answered call UI elements, outgoing call UI elements, and voicemail UI elements, such that the user can easily distinguish between different call UI elements.

(76) FIG. 4B shows additional examples of variations of call UI elements 187 corresponding to inbound answered calls (i.e., answered calls received by one or more messaging applications 165 included in the wrist-wearable device 110, FIGS. 1A-1J). The answered call UI elements (e.g., first through sixth answered call UI elements **413-423**) represents an answered call (represented by a checkmark) at a messaging application 165 and can include data similar to the missed call UI elements **401-411**. For example, fourth answered call UI element **419** includes contact information (e.g., "Jake Erazo" in element **419**), a graphical icon representing the messaging application with which the call was received (e.g., graphical icon showing a phone in element 419), a textual description of the messaging application with which the call was received (e.g., "Social media platform 1" in element 419), and a textual and/or graphic indication as to a user account of the user of the wrist-wearable device that received the call via the messaging application (e.g., "User Account 2" in element 419). Each of the first, second and third answered call UI elements 413, **415**, and **417** represent an answered audio call. Similarly, respective missed call UI elements can be used to represent missed video calls. For example, a fourth, fifth, and sixth answered call UI elements **419**, **421**, and **423** each represent an answered video call from one or more messaging applications **165** associated with the respective contact (and user account). The one or more messaging applications **165** can be the same or distinct messaging applications **165**. In some embodiments, the missed call UI elements are visually distinct from inbound answered call UI elements, outgoing call UI elements, and voicemail UI elements, such that the user can easily distinguish between different call UI elements.

(77) FIG. **4**C shows example variations of call UI elements **187** corresponding to outbound calls (i.e., calls initiated (or performed) from a messaging application **165** included in the wrist-wearable device **110** or portable device **115**; FIGS. **1**A-IJ). The outgoing call UI elements (e.g., first through fourth outgoing call UI elements **425-431**) represent an outgoing call UI element (represented by an arrow pointing away from a graphical icon representing the messaging application) from a messaging application **165**. The outgoing call UI elements can include data similar to the missed call UI elements **401-411**. For example, a second outgoing call UI element **427** includes contact information (e.g., "Jake Erazo" in element **727**), a graphical icon representing the messaging application with which the call was received (e.g., a graphical icon showing a phone in element **427**), a textual description of the messaging application with which the call was performed (e.g., "Social media platform 3" in element **427**), and a textual and/or graphic indication as to a user

account of the user of the wrist-wearable device that initiated the call via the messaging application (e.g., "User Account 2" in element **427**). Each of the first and second outgoing call UI elements **425** and **427** represent an outgoing audio call. Similarly, respective outgoing call UI elements can be used to represent outgoing video calls. For example, a third and fourth outgoing call UI element **429** and **431** each represent an outgoing video call from a messaging application (and associated user account). In some embodiments, the outgoing call UI elements are visually distinct from inbound missed call UI elements, inbound answered call UI elements, and voicemail UI elements, such that the user can easily distinguish between different call UI elements.

- (78) FIG. **4**D shows example variations of voicemail UI elements **189** from a messaging application **165** in the wrist-wearable device **110** (FIGS. **1**A-**1**J). In some embodiments, a first voicemail call UI element **433** represents an audio voicemail from a messaging application **165** and a second voicemail call UI element **435** represents a video voicemail from the messaging application **165**. The data corresponding to the first voicemail call UI element **433** and the second voicemail call UI element **435** can include contact information that provided the voicemail to the messaging application **165** (and the associated user account). In some embodiments, the voicemail call UI elements are visually distinct from inbound missed call UI elements, inbound answered call UI elements, and the outgoing UI elements, such that the user can easily distinguish between different call UI elements.
- (79) FIGS. 5A and 5B illustrate guided human-machine interaction processes for returning video and audio calls received from a single contact using more than one contact form (e.g., more than one contact number for the single contact or more than one communication medium), in accordance with some embodiments. In particular, FIG. 5A illustrates an example process for returning an audio call and FIG. 5B illustrates an example process for returning a video call. The wrist-wearable device 110 includes a microphone 1197, a speaker 1195, a display 130, and an imaging device 147 (FIG. 11), which are used by the wrist-wearable device 110 to present, to the user, audio data and video data received from another electronic device communicatively coupled to the wrist-wearable device 110, capture audio data and/or video data from the user, and send the captured audio data and/or video data to the other electronic device.
- (80) FIG. 5A shows the display **130** of the wrist-wearable device **110** presenting one or more of an aggregated call log UI **180**, an aggregated phone number UI **530**, and an ongoing call UI **380**. In some embodiments, while displaying the aggregated call log UI **180**, the wrist-wearable device **110** detects an input **525** from the user wearing the wrist-wearable device **110**, the input **525** corresponding to a request from the user **120** (FIGS. **1A-1J**) to call one or more other users (e.g., selection of call UI element **587**A (similar to call UI elements **187** described above)). In some embodiments, one or more calls (or voicemails) are aggregated into a single UI element **587** of the aggregated call log UI **180**. For example, the aggregated call UI element **587**A for "Jake Erazo" aggregates two calls from Ernie James as noted by the counter "(2)." The aggregated calls can be either video calls, audio calls, or both. In some embodiments, calls from different messaging applications and/or different accounts corresponding to the same contact are aggregated.

  (81) The wrist-wearable device **110**, in response to detecting the request from the user **120** to call one or more other users transmits a call-initiation request to the selected one or more other users
- one or more other users, transmits a call-initiation request to the selected one or more other users via a messaging application **165** (e.g., using the same messaging application **165** corresponding to the other users and/or using a user account **609** (FIGS. **6**A-**6**C) associated with the messaging application **165** (and/or the one or more other users)). For example, in some embodiments the call UI element **587** corresponds to a call from a first other user (or contact) using a first messaging application **165**, and selection of the call UI element **587**A causes the wrist-wearable device **110** to transmit a call-initiation request to the first other user (or contact) using the first messaging application **165**. In this way, the wrist-wearable device **110** provides a guided and/or sustained human-machine interaction such that the user **120** does not need to open a particular messaging application **165** to initiate the call.

- (82) In some embodiments, the ongoing call UI **380** includes a message indicating that the wrist-wearable device **110** is attempting to establish a connection (e.g., calling). In some embodiments, the ongoing call UI **380** includes a message indicating that the wrist-wearable device **110** has established a connection (e.g., connected). Alternatively, in some embodiments the ongoing call UI **380** displays contact data (e.g., Jake Erazo) when the wrist-wearable device **110** has established a connection. In some embodiments, the ongoing call UI **380** includes one or more additional UI elements, such as a mute UI element **383** and an end call UI element **385**. The mute UI element **383**, when selected by the user **120**, disables the microphone **1197** such that audio data from the user **120** is not captured. Selection of the mute UI element **383** a subsequent time by the user **120** enables the microphone **1197** such that audio data from the user **120** is captured. The end call UI element **385** when selected by the user **120** ends the call.
- (83) In some embodiments, the wrist-wearable device **110** automatically calls the selected contacts via the messaging application **165** and displays, via the display **130**, the ongoing call UI **380**. In some embodiments, the wrist-wearable device **110** automatically initiates the call in response to a request from the user to return a call (which cause the wrist-wearable device **110** to automatically return the most recently received call). Alternatively, in some embodiments a contact associated to the call UI element **587** is associated with two or more contact numbers or user accounts, and the wrist-wearable device **110**, before transmitting a call-initiation request to the contact associated to the call UI element **587**, displays the aggregated phone number UI **530**. The aggregated phone number UI **530** includes one or more UI elements corresponding to one or more phone numbers of the respective contacts numbers. The wrist-wearable device **110**, in response to detecting the request from the user to call a particular phone number of the respective contacts numbers (e.g., "1 (650) 555-555"), transmits a call-initiation request to the particular phone numbers of the respective contacts numbers, and presents the ongoing call UI 380 as described above. In some embodiments, the aggregated phone number UI **530** is presented based on user preferences. More specifically, the aggregated phone number UI **530** is configurable such that the wrist-wearable device **110** user can decide whether to toggle on or off the aggregated phone number UI **530** for choosing which contact to use for returning calls or to automatically return calls using the contact that was most recently used.
- (84) FIG. **5**B shows the display **130** of the wrist-wearable device **110** presenting one or more of an aggregated call log UI 180, a call-initiation UI 560 (similar to the call-initiation UI 370 (FIG. 3)), and an ongoing video call UI **580**. In some embodiments, while displaying the aggregated call log UI **180**, the wrist-wearable device **110** detects an input **555** from the user wearing the wristwearable device **110**, the input **555** corresponding to a request from the user **120** to call one or more other users (e.g., selection of call UI element 587A (similar to call UI elements 187 described above)). The wrist-wearable device **110**, in response to detecting the request from the user to call the one or more other users and before transmitting the call-initiation request to one or more other users via the messaging application **165**, displays, on its display **130**, the call-initiation UI **560**. (85) In some embodiments, the wrist-wearable device **110** automatically calls the selected contacts via the messaging application **165** (e.g., as shown in the ongoing video call UI **580**). As described above, in some embodiments the wrist-wearable device **110** automatically initiates the call in response to a request from the user to return a call (which causes the wrist-wearable device **110** to automatically return the most recently received call). Alternatively, in some embodiments the wristwearable device **110** displays the call-initiation UI **560**, which allows a user to select what type of call should be initiated. In some embodiments, the call-initiation UI **560** includes one or more UI elements corresponding to at least a video call UI **565** and a voice call UI **563**. In some embodiments, in response to detecting user input selecting the voice call UI element **563**, the wristwearable device 110 transmits a voice call-initiation request to the one or more other users via the messaging application **165** (e.g., using the same messaging application **165** corresponding to the other users and/or using a user account **609** (FIGS. **6**A**-6**C) associated with the messaging

application **165** (and/or the one or more other users)), and displays the ongoing call UI **380**. In some embodiments, in response to detecting user input **567** selecting the video call UI element **565**, the wrist-wearable device **110** transmits a video call-initiation request to the one or more other users via the messaging application **165** and displays the ongoing video call UI **580**. Similar to the aggregated phone number UI **530**, the call-initiation UI **560** is presented based on user preferences. In other words, the call-initiation UI **560** is configurable such that the wrist-wearable device **110** user can decide whether to toggle on or off the call-initiation UI **560** for choosing the type of call that should be made.

- (86) In some embodiments, the ongoing video call UI 580 includes a message indicating that the wrist-wearable device **110** is attempting to establish a connection (e.g., video calling). In some embodiments, the ongoing video call UI **580** includes a message indicating that the wrist-wearable device **110** has established a video connection (e.g., connected). Alternatively, in some embodiments the ongoing video call UI **580** displays contact data (e.g., Russ C.) and video data when the wrist-wearable device **110** has established a connection. Additionally, in some embodiments, the ongoing video call UI 580 includes a representation of image data captured by the wrist-wearable device or other user device that allows for a picture-in-picture video call (e.g., as shown by user image data capture **589**). In some embodiments, the ongoing video call UI **580** includes one or more additional UI elements, such as the mute UI element **383**, an end call user UI **385**, and an imaging device disable UI element **583**. The imaging device disable UI element **583**, when selected by the user, disables the imaging device **147** such that the video data from the user is not captured. In some embodiments, the wrist-wearable device **110** continues to capture audio data while the imaging device **147** is disabled. Selection of the imaging device disable UI element **583** a subsequent time by the user **120** enables the imaging device **147** such that video data from the user **120** is captured.
- (87) FIGS. **6**A-**6**C illustrate a guided human-machine interaction process for enabling and disabling various user accounts associated with different messaging applications for use with the communications-hub mode, according to some embodiments. FIGS. **6**A-**6**C show a user-accountconfiguration UI **605**, an aggregated messaging UI **160**, an aggregated contacts UI **250**, an aggregated user account UI 660, and a message UI 270. Each of the UIs are displayed on a display **130** of the wrist-wearable device **110** (FIGS. **1**A-**1**F) or a portable device **113** (FIGS. **1**G-**1**J). (88) Turning to FIG. **6**A, the user-account-configuration UI **605**A includes one or more available user accounts **609** (e.g., available user accounts are ones that the user of the wrist-wearable device has provided credentials for (e.g., at an associated computing device or directly via the wristwearable device) such that the wrist-wearable device is able to retrieve the message data associated with the available user accounts once those user accounts are activated/enabled on the wristwearable device). In some embodiments, the one or more user accounts **609** are associated with one or more messaging applications **165** available on the wrist-wearable device **110**. (89) In some embodiments, the one or more user accounts **609** are associated via a two-step process. The two-step process can include, when a user 120 sets up the wrist-wearable device 110 for the first time, requesting the user **120** to access an application associated with the wristwearable device **110** on another device (e.g., a phone, laptop), and requesting the user **120** to login to the application associated with the wrist-wearable device **110** using one or more user accounts **609** that they wish to associate with the wrist-wearable device **110**. If the user **120** does not have a user account **609** already associated with the application associated with the wrist-wearable device **110**, the user **120** is prompted to associate an existing user account **609** or create a new user account **609**. In some embodiments, the user **120** associates a centralized user account **609** that is further associated with a number of additional user accounts **609**, the centralized user account **609** providing the wrist-wearable device **110** with access to each user account **609** associated with the centralized user account **609**. For example, a user **120** can have a centralized Facebook user account that is associated with a number of other applications and/or user accounts (e.g., an

Instagram account, an Oculus account, a Messenger account). After the user **120** has associated at least one user account **609** to the application associated with the wrist-wearable device **110**, each associated user account **609** will appear on the wrist-wearable device **110**. In some embodiments, the user **120** associates the user account **609** by providing account login credentials (e.g., username and password), scanning a QR code, providing a one-time password, and/or other methods known in the art. In some embodiments, the user 120 can select one or more user accounts 609 (that have been associated with the wrist-wearable device **110** as described above) to associate with one or more messaging applications **165** or other applications included in the wrist-wearable device **110**. In some embodiments, the user **120** can update or add additional user accounts **609** via the application associated with the wrist-wearable device **110**. Alternatively, in some embodiments the login process includes displaying, via the display 130 of the wrist-wearable device 110, a prompt requesting from the user **120**, for each user account **609** to be associated with the wrist-wearable device **110**, to provide account login credentials, scan a QR code, input a one-time password, etc. (90) In some embodiments, each user account **609** is used to access one or more of a social media platform 611, computing device 115 (e.g., mobile device network), email accounts, VOIP applications, text messaging applications, and/or other communication-based applications. For example, a first user account UI element **607**A corresponds to a first user account **609**A, and the first user account **609**A is associated with a first social media platform **611**A; a second user account UI element **607**B corresponds to a second user account **609**B, and the second user account **609**B is associated with the first social media platform **611**A; and a third user account UI element **607**C corresponds to the first user account **609**A, and the first user account **609**A is associated with a second social media platform **611**B. In some embodiments, one user account **609** can be used to access at least two (e.g., is a single-sign-on account to allow access to more than one platform or application) social media platform accounts, webpage accounts, email accounts, instant messaging accounts, phone provider accounts, and/or other communication-based applications. For example, FIG. **6**A shows that a user account "johndrake" is used to access both "Platform 1" and "Platform 2."

- (91) One or more user accounts **609** associated with the wrist-wearable device **110** can be active at the same time. In some embodiments, up to a predetermined number of accounts (e.g., five accounts, six accounts) can be active at the same time. For example, in some embodiments the wrist-wearable device **110** can have up to five accounts active at the same time. In some embodiments, the predetermined number of accounts that can be active at the same time depends on the amount of memory (storage **1102**, RAM **1103**, or memory **1150** (FIG. **11**), or a combination of these memory sources) at the wrist-wearable device **110**. In some embodiments, individual accounts **609** can be toggled between active and inactive (also referred to herein as enabled and disabled). In some embodiments, the one or more accounts **609** can be selectively activated or disabled for one or more messaging applications **165**. For example, the user-account-configuration UI **605**A has the first user account **609**A corresponding to the first social media platform **611**A active (identified by active toggle UI element 613), the second user account 609B corresponding to the first social media platform **611**A disabled, and the first user account **609**A corresponding to the second social media platform **611**B disabled (identified by disabled toggle UI element **615**). Additional information on activating and disabling the one or more user accounts **609** is described below in reference to FIGS. **8**A-**8**E.
- (92) In FIG. **6**A, only the first user account **609**A is active, which would then be the only user account used in conjunction with the communications-hub mode described herein (e.g., messaging, calls, and contacts data for the first user account **609**A is used as the source of data displayed within the aggregated UIs of the communications-hub mode). For example, while the aggregated messaging UI **160** is displayed in the example of FIG. **6**A, data presented in that aggregated messaging UI **160** is retrieved only for the active first user account **609**A and not for the user accounts that are disabled. Additionally, FIG. **6**A shows that the wrist-wearable device **110** detects

- an input **625** from the user **120** wearing the wrist-wearable device **110**, with the input **625** corresponding to a request to compose a new message (e.g., selection of the UI element for creating a new message **170**). In response to the detection of the input **625**, the wrist-wearable device **110** ceases to display the aggregated messaging UI **160** and displays an aggregated contacts UI **250**. The data displayed in the aggregated contacts UI **250** is based on data associated with the currently active first user account **609**A only, and contacts that might be associated with other user accounts (ones that are currently not active or are disabled) would not be displayed in the aggregated contacts UI **250**.
- (93) While the aggregated contacts UI **250** is displayed, the wrist-wearable device **110** detects an input **650** from the user **120** wearing the wrist-wearable device **110**, with the input **650** corresponding to a request to select a contact (e.g., "mom"). In response to detecting the input **650**, the wrist-wearable device **110** ceases to display the aggregated contacts UI **250** and displays the message UI **270** for a messaging application **165**, the messaging application **165** corresponding to the first user account **609**A, which is associated with the first social media platform **611**A. In this example, because only the first user account **609**A is active, the wrist-wearable device **110** automatically displays the message UI **270** for a respective messaging application **165** associated with a first social media platform **611**A to receive and/or send messages, receive and/or initiate calls, and/or receive voicemails via the first social media platform **611**A ("Platform 1") associated with the first user account **609**A.
- (94) As described above in reference to FIG. 2, the message UI 270 includes one or more UI elements that are configured to perform an action, such as an audio capture UI element 278, an image capture UI element 279, a call-initiation UI element 280, a keyboard display UI element 282, and a send location UI element 283. In some embodiments, the message UI 270 does not include one or more predetermined text inputs for new message threads. Alternatively, in some embodiments the message UI 270 includes one or more predetermined text inputs such as a greeting (e.g., hello, hi, how have you been?) or only displays those predetermined text inputs after the user scrolls further down to reveal those predetermined text inputs.
- (95) In FIG. **6**B, the user-account-configuration UI **605**B shows the first user account **609**A and the second user account **609**B as being active, both of which are associated with the first social media platform **611**A (identified by active toggle UI element **613**), and the first user account **609**A, which is associated with the second social media platform **611**B, as being disabled (identified by inactive toggle UI element 615). In response to the second user account 609B becoming active, the wristwearable device **110** updates the entire communications-hub mode such that messages (or calls) associated with the enabled user account **609** (and disabled user accounts **609**) are included or removed from the aggregated messaging UI **160** (and/or other UIs described herein). For example, in FIG. **6**B, in response to the second user account **609**B becoming active, the communications-hub mode is updated to show messages associated with the second user account 609B (e.g., "Fam" thread associated with the "iampolice" user account is included in the aggregated messaging UI 160, which was not previously included in the aggregated messaging UI 160 when disabled as shown in FIG. 6A). Alternatively, the reverse also occurs as user accounts are disabled. For example, in response to disabling the iampolice account, the aggregated messaging UI, aggregated call log UI, and aggregated contacts UIs would then be updated to remove data for the newly disabled iampolice user account. Thus, the communications-hub mode efficiently allows for guiding access to only those user accounts that have been enabled and it is also dynamically updated as user accounts are enabled and disabled at the wrist-wearable device **110**. (96) The wrist-wearable device **110**, in response to detecting, via the displayed aggregated messaging UI 160, an input 625 from the user 120 wearing the wrist-wearable device 110 corresponding to a request to compose a new message (e.g., selection of the UI element for creating a new message **170**) and subsequently detecting, via the displayed aggregated contacts UI **250**, an

input **650** from the user **120** wearing the wrist-wearable device **110** corresponding to a request to

select a contact (e.g., "mom"), displays, on its display 130, the aggregated user account UI 660. The aggregated user account UI 660 includes one or more active user accounts 609. More specifically, one or more user account selection UI elements 663 for each active user account 609 is displayed in the aggregated user account UI 660. For example, in FIG. 6B a first user account selection UI element 663A for the first user account 609A and a second user account selection UI element 663B for the second user account 609B are included in the aggregated user account UI 660. Each user account 609 in the aggregated user account UI 660 is configured to transmit a message (or, in the case of a call, transmit a call-initiation request).

- (97) While displaying the aggregated user account UI, the wrist-wearable device **110** detects another input **665** from the user **120** wearing the wrist-wearable device **110**, the other input **665** corresponding to a request from the user **120** to select one of the user accounts **609**, at which point the wrist-wearable device **110** ceases to display the aggregated user account UI **660** and displays the message UI **270** corresponding to the selected user account **609**. The user **120** can perform one or more actions in the message UI **270** as described above in reference to FIG. **2**. Although the above example presents the aggregated user account UI **660** after selection of a contact in the aggregated contacts UI **250**, in some embodiments the aggregated user account UI **660** is presented before the user selects a contact from the aggregated contacts UI **250**.
- (98) Alternatively, in some embodiments the wrist-wearable device **110**, in response to detecting, via the displayed aggregated messaging UI **160**, selection (e.g., input **625**) of the UI element for creating a new message **170**, in accordance with a determination that the two different user accounts (e.g., first user account **609**A and second user account **609**B) for receiving messages via the first messaging application **165** are enabled on the wrist-wearable device **110**, presents a first selectable option that, when selected, causes the wrist-wearable device **110** to initiate the creation of a message to be sent using the first of the two different user accounts **609**A and a second selectable option that, when selected, causes the wrist-wearable device **110** to initiate the creation of a message to be sent using the second of the two different user accounts **609**B. More specifically, in some embodiments the user **120** can select a user account **609** for a messaging application to compose a message before selecting a contact.
- (99) In FIG. **6**C, the user-account-configuration UI **605**C shows the first user account **609**A as being active for the first social media platform **611**A and active for the second social media platform **611**B (identified by active toggle UI element **613**), and the second user account **609**B as being active for the first social media platform **611**A. As described above, in response to enabling the "johndrake" user account (for a second social media platform **611**B), the aggregated messaging UI, aggregated call log UI, and aggregated contacts UIs are updated to include data for the newly enabled "johndrake" user account.
- (100) The wrist-wearable device **110**, in response to detecting, via the displayed aggregated messaging UI **160**, an input **625** from the user **120** wearing the wrist-wearable device **110** corresponding to a request to compose a new message (e.g., selection of the UI element for creating a new message **170**) and subsequently detecting, via the displayed aggregated contacts UI **250**, an input **650** from the user **120** wearing the wrist-wearable device **110** corresponding to a request to select a contact (e.g., "mom"), displays, on its display **130**, the aggregated user account UI **660**. The aggregated user account UI **660** includes one or more active user accounts **609**. For example, in FIG. **6**C a first user account selection UI element **663**A for the first user account **609**A, a second user account selection UI element **663**B for the second user account **609**B, and a third user account selection UI element **663**C for the first user account **609**C are included in the aggregated user account UI **660**. Each user account **609** in the aggregated user account UI **660** is configured to transmit a message (or, in the case of a call, transmit a call-initiation request). In some embodiments, the aggregated user account UI **660** is optional and may not be shown if a user only has one account.
- (101) While displaying the aggregated user account UI, the wrist-wearable device 110 detects

another input **670** from the user **120** wearing the wrist-wearable device **110**, the other input **670** corresponding to a request from the user **120** to select one of the user accounts **609**, at which point the wrist-wearable device **110** ceases to display the aggregated user account UI **660** and displays the message UI **270** corresponding to the selected user account **609**. In this example, the user **120** selected the second social media platform **611**B associated with the first account **609** and, as such, the message UI **270** will correspond to the second social media platform **611**B. The user **120** can perform one or more actions in the message UI **270** as described above in reference to FIG. **2**. (102) Alternatively, in some embodiments the wrist-wearable device **110**, in response to detecting the selection of the UI element for creating a new message **170** in accordance with a determination that at least one user account for receiving messages via the second messaging application is enabled on the wrist-wearable device **110**, presents a third selectable option that, when selected, causes the wrist-wearable device to initiate the creation of a message to be sent using the at least one user account for the second messaging application. The first, second, and third selectable options are presented within one UI on the wrist-wearable device. More specifically, in some embodiments the user **120** can select the user account **609** and the messaging application associated with the user account **609** to compose and send the message. In some embodiments, the user **120** selects the user account 609 and/or the messaging application associated with the user account 609 before selecting a contact.

(103) While FIGS. **6**A-**6**C show the aggregated user account UI **660** when composing a new message, the skilled artisan will appreciate that aspects of the aggregated user account UI **660** can be performed whenever a message is sent (e.g., as described above in FIG. **2**) and/or whenever one or more audio or video calls are initiated by the user **120**. For example, in some embodiments the aggregated user account UI **660** is displayed before or after the call-initiation UI **360** (FIG. **3** and FIG. **5**) is displayed to the user **120**. In some embodiments, the wrist-wearable device **110**, in repose to a selection of a contact in FIGS. **6**A-**6**C, presents, via the display **130**, an existing thread (for the selected messaging application and associated user account **609**) if the wrist-wearable device **110** determines that a thread already exists. If a thread does not exist, the wrist-wearable device **110** creates a new thread for the selected contact.

(104) FIGS. 7A-7C illustrate configuration UIs for adjusting settings associated with the communications-hub mode of the wrist-wearable device **110**, according to some embodiments. FIG. 7A illustrates a user configuration UI **710** including one or more messaging applications and associated user accounts associated with a wrist-wearable device **110**. In some embodiments, a user is able to select (e.g., input **720**) a messaging application and/or associated user account (e.g., user element **715** including user account "John Drake" associated with social media platform 2) to update and/or set one or more settings and preferences.

(105) The device configuration UI **730** includes one or more of a messaging application UI element **735**, a general settings UI element **737**, and a cellular UI element **739**. In some embodiments, the device configuration UI **730** is presented in response to a selected messaging application and/or associated user account in the user configuration UI **710**. In some embodiments, user input selecting the messaging application UI element **735** allows the user to switch between different messaging applications and/or associated user accounts to update. The general settings UI element **737**, when selected, allows the user to configure one or more settings for the selected user account and the associated wrist-wearable device **110**. The cellular UI element **739**, when selected, allows the user to configure a cellular network associated with the selected user account UI element **735**. (106) In some embodiments, the wrist-wearable device **110** includes a user-account-configuration UI **750** for enabling and disabling user accounts **609** on the wrist-wearable device **110**. In particular, the user-account-configuration UI **750** includes different user accounts **609** associated with different messaging applications for different social media platforms. As discussed below in reference to FIGS. **8**A-**8**E, the user-account-configuration UI **750** allows the user to enable or disable (via an input at a toggle control) different user accounts **609** and/or messaging applications.

As described herein, by allowing a user to enable only a predetermined number of the user accounts **609**, the wrist-wearable device **110** is able to preserve limited computing and memory resource.

- (107) FIGS. **8**A-**8**E illustrate a guided human-machine interaction process for configuring user accounts to be used with the communications-hub mode, according to some embodiments. In some embodiments, the user-account-configuration UI **750** includes one or more user accounts **821** (analogous to user accounts **609**) associated with the wrist-wearable device **110**. As described above in FIGS. **6**A-**6**C, in some embodiments each user account **609** is associated with one or more messaging applications **165**. In some embodiments, each account is associated with one or more platforms **817** corresponding to one or more social media platform accounts, webpage accounts, email accounts, instant messaging accounts, phone provider accounts, and/or other communication-based applications. As an example, a first social media platform **817**A can be associated with one or more first user accounts **821**A that are active for a first messaging application.
- (108) In a first user-account-configuration UI **750**A, only two user accounts (a first user account UI element **821**A and a second user account UI element **821**B) are active on the wrist-wearable device **110**. As only two accounts are active on the wrist-wearable device **110**, the user can activate and deactivate (or disable) only one account. In other words, at least one user account **609** must be active on the wrist-wearable device **110**. In some embodiments, a main user account is associated with the wrist-wearable device **110**. The main user account is identified by the wrist-wearable device icon **819** in the first user account UI element **821**A. The second user account UI element **821**B is shown as active via the active toggle UI element **825**.
- (109) In FIG. 8B, a second user-account-configuration UI 750B includes seven user accounts (represented by a first user account UI element 821A through a seventh user account UI element 821G). In the second user-account-configuration UI 750B five of the seven user accounts are active, in particular, the main user account represented by the first user account UI element 821A, a second user account represented by the second user account UI element 821B, a third user account represented by the third user account UI element 821C, a fourth user account represented by the fourth user account UI element 821C, a fifth user account represented by the fifth user account UI element 821E. Each active account, except for the main user account, includes an active toggle UI element 825, and each inactive or disabled account (the sixth user account UI element 821F and the seventh user account UI element 821G) includes an inactive toggle UI element 827. The social media platforms 817 of each active account can be the same or distinct. For example, the first user account is associated with a first social media platform 817A, the second user account is associated with a third social media platform 817B, the third and fourth user account is associated with a third social media platform 817C, and the fifth user account is associated with a fourth social media platform 817D.
- (110) In some embodiments, while displaying the user-account-configuration UI **750**, the wrist-wearable device **110** detects an input **845** from the user **120** wearing the wrist-wearable device **110**, the input corresponding to a request from the user to activate a user account of the one or more user accounts **821**. The wrist-wearable device **110**, in response to detecting the request from the user **120** to activate the account of the one or more user accounts **821**. Enabling the account includes associating the account of the one or more user accounts **821** with at least one of the messaging applications **165**, obtaining data from the user account **821**, and storing the data from the user account **821** on the wrist-wearable device **110**. Obtaining data from the user account **821** and storing the data from the user account **821** on the wrist-wearable device **110** can include retrieving one or more contacts, one or more messages, message history, call history, user settings and preferences, etc., from the user account **821** and storing the data locally at the wrist-wearable device **110**. In other words, the communications-hub mode is constantly updated as the user accounts are enabled such that each aggregated UI associated with the communications-hub mode displays data added when any user account is

enabled or any other user account change is made. In FIG. **8**C, user input **845** selects the sixth user account **821**F, which corresponds to a request to activate the sixth user account **821**F. (111) In some embodiments, a user is presented, via a display **130**, a UI to preview for the aggregated UIs associated with the communications-hub mode. The previews for the aggregated UIs associated with the communications-hub mode include representations of the aggregated UIs with a user account that is toggled on (enabled) or off (disabled). For example, a previewaggregated UI can include data that will be added or deleted from the aggregated UI of the communications-hub mode based on the toggled accounts.

- (112) In some embodiments, while displaying the user-account-configuration UI 750, the wristwearable device 110 detects another input from the user 120 wearing the wrist-wearable device **110**, the other input corresponding to a request from the user to deactivate another account of the one or more user accounts **821**. The wrist-wearable device **110**, in response to detecting the request from the user to deactivate the other account of the one or more user accounts **821**, disables the other account of the one or more user accounts **821**, such that data associated with the nowdisabled user account is no longer displayed with the UIs provided in connection with the communications-hub mode. Disabling the other account includes removing data for the other account from the UIs that are displayed in conjunction with the communications-hub mode of the wrist-wearable device **110**. Removing data for the other account from the wrist-wearable device **110** can, in some embodiments, include removing (e.g., from a memory of the wrist-wearable device **110**) one or more contacts, one or more messages, message history, call history, user settings and preferences, etc., that would have previously been displayed in conjunction with the communications-hub mode of the wrist-wearable device 110. This removal can occur locally and without removing data from the now-disabled user account entirely (e.g., if the user chose to log into the now-disabled user account using a different device, the data would still be displayed, it just would no longer be displayed in conjunction with the UIs of the communications-hub mode on the wrist-wearable device). In an alternative embodiment, at least some of the data for the nowdisabled account (e.g., the five most recent messages) can continue to be stored on the wristwearable device **110** to help enable quicker display of some data should the now-disabled user account become reenabled later on.
- (113) As noted in FIGS. **6**A-**6**C, up to a predetermined number of user accounts (e.g., five accounts, six accounts) can be active at the same time. For example, in some embodiments the wrist-wearable device **110** can have up to five accounts active at the same time. In some embodiments, the wrist-wearable device **110** can have a maximum of four active accounts. In some embodiments, when the predetermined number of accounts has been reached and the wrist-wearable device **110** detects input **845** from the user **120** wearing the wrist-wearable device **110** corresponding to a request from the user to activate a user account of the one or more user accounts, the wrist-wearable device **110**, in response to detecting the request from the user **120**, ceases displaying user-account-configuration UI **750** and displays, on its display **130**, user account deactivation selection UI **870** includes user account UI element **821** for each active account except for the main user account. For example, as shown in FIG. **8**D, the user account deactivation selection UI **870** includes the second user account UI element **821**E, the third user account UI element **821**C, the fourth user account UI element **821**C, and the fifth user account UI element **821**E.
- (114) In some embodiments, while displaying the user account deactivation selection UI **870**, the wrist-wearable device **110** detects input **875** from the user **120** wearing the wrist-wearable device **110**, the input **875** corresponding to a request from the user to deactivate an account of the one or more user accounts **821**. The wrist-wearable device **110**, in response to detecting the request from the user to deactivate the account of the one or more user accounts **821**, disables the account of the one or more user accounts **821**, which removes data for the account from the wrist-wearable device **110**. In other words, the communications-hub mode is constantly updated as the user accounts are

disabled such that each aggregated UI associated with the communications-hub mode displays data removed when any user account is disabled or any other user account change is made. In the example provided in FIG. 8D, the user selects to remove the third user account (represented by the third user account UI element 821C). Toggling off (i.e., disabling a user account) removes data for the user account; however, the user can remain logged into the disabled user accounts such that the user can easily enable and disable accounts without having to continuously enter login information. (115) As shown in FIG. 8E, as a result of the user's selections in FIGS. 8C and 8D, the active accounts are updated. In particular, the third user account UI element 821C is shown as inactive and the sixth user account UI element 821F is shown as active.

- (116) In some embodiments, the user-account-configuration UI **750** can be accessed from any of the UIs described herein. For example, the user-account-configuration UI **750** can be accessed via an aggregated messaging UI **160** and/or an aggregated call log UI **180**, which grants the user greater control in communicating with other devices.
- (117) FIGS. **9**A-**9**E show a detailed flow diagram of a method **900** for activating a communications-hub mode and interacting with aggregated UIs available therein, according to some embodiments. In particular, the method **900** includes presenting UIs for allowing a user **120** to access data on the wrist-wearable device **110**. Further, the wrist-wearable device **110** is configured to present audio data and/or video data and/or capture and send audio and/or video data by a wrist-wearable device **110**. Operations (e.g., steps) of the method **900** can be performed by one or more processors (e.g., central processing unit 1126 and/or MCU 1152 of FIG. 11) of a wristwearable device **110**. In some embodiments, the wrist-wearable device **110** is coupled with one or more sensors (e.g., various sensors shown in FIG. 11, such as a heart rate sensor 1158, EMG sensor 1146, SpO2 sensor 1154, altimeter 1148, thermal sensor or thermal couple, ambient light sensor, ambient noise sensor), a display 130, a speaker 1195, an imaging device 147, and a microphone **1197** to perform the one or more operations of FIGS. **9**A-**9**E. The speaker **1195** can be integrated with the wrist-wearable device **110** or can be associated with a device that is separate from the wrist-wearable device **110** but is communicatively coupled thereto, such as a pair of headphones, a Bluetooth speaker, or other like devices that include speakers 1195 for presenting audio data. At least some of the operations shown in FIGS. 9A-9E correspond to instructions stored in a computer memory or computer-readable storage medium (e.g., storage 1102, ram 1103, and/or memory 1150 FIG. 11). Operations 902-964 can also be performed in part using one or more processors and/or using instructions stored in memory or computer-readable medium of an electronic device (e.g., computing device **115** of FIGS. **1**A-**1**J) communicatively coupled to the wrist-wearable device **110** (e.g., a server, a computer, and/or a smartphone can perform operations **902-964** alone or in conjunction with the one or more processors of the wrist-wearable device **110**).
- (118) The method **900** includes displaying (**902**), on a display of a wrist-wearable device **100** that includes at least a first messaging application and a second messaging application distinct from the first messaging application, a watch-face UI **140**. In some embodiments, the watch-face UI includes (**904**) an indication to the user that the aggregated messaging UI **160** is available via a single input, for example, as shown in FIG. **1**A, indication UI element **149**. While displaying the watch-face UI **140**, the method **900** includes detecting (**906**) a single input from a user wearing the wrist-wearable device **110**, the single input corresponding to a request from the user **120** to activate a communications-hub mode. The communications-hub mode provides access to two or more of an aggregated messaging UI **160**, an aggregated call log UI **180**, and an aggregated contacts UI **250**, each including data from both of the first messaging application and the second messaging application (e.g., one or more messaging applications **165**).
- (119) In response to detecting the single input (**908**-*a*) corresponding to the request from the user to activate the communications-hub mode, the method **900** includes ceasing (**908**-*b*) to display the watch-face UI **160** and displaying (**908**-*c*), on the display **130** of the wrist-wearable device **110**, the aggregated messaging UI **160**. Displaying the aggregated messaging UI **160** includes displaying a

first UI element that includes at least part of a first message received via the first messaging application and a second UI element that includes at least part of a second message received via the second messaging application. For example, as shown in FIGS. **1**A-IC and FIG. **2**, user input can be used to transition between a watch-face UI **140** and the aggregated messaging UI **160**, which includes one or more message UI elements **167**. In some embodiments, the aggregated messaging UI **160** includes (**910**) an indication to the user that the aggregated call log UI **180** is available via a single input.

- (120) In some embodiments, the user wearing the wrist-wearable device **110** has **(912**-*a*) two different user accounts for receiving messages via the first messaging application and the aggregated messaging UI also includes **(912**-*b)* a third UI element that includes at least part of a third message received via the first messaging application, the third message being sent to a first of the two different user accounts via the first messaging application and the first message being sent to a second of the two different user accounts via the first messaging application. For example, as shown in FIG. **2**, one or more messages can be received via different messaging applications **165**. Further, as described in FIGS. **6**A-**6**C, the one or more messaging applications **165** can be associated with one or more user accounts **609**.
- (121) In some embodiments, the method **900** includes displaying (**914**-*a*), within the aggregated messaging UI, a UI element for creating a new message, and the method **900** further includes, in response to detecting a selection of the UI element for creating a new message in accordance with a determination that the two different user accounts for receiving messages via the first messaging application are enabled on the wrist-wearable device, presenting (**914**-*b*) a first selectable option that, when selected, causes the wrist-wearable device to initiate the creation of a message to be sent using the first of the two different user accounts and a second selectable option that, when selected, causes the wrist-wearable device to initiate the creation of a message to be sent using the second of the two different user accounts. In some embodiments, the method **900** includes, in response to detecting the selection of the UI element for creating a new message in accordance with a determination that at least one user account for receiving messages via the second messaging application is enabled on the wrist-wearable device, presenting (916) a third selectable option that, when selected, cause the wrist-wearable device to initiate the creation of a message to be sent using the at least one user account for the second messaging application, wherein the first, second, and third selectable options are presented within one UI on the wrist-wearable device. Additional examples of creating a new message are provided above in FIGS. 2 and 6A-6C. (122) In some embodiments, the wrist-wearable device includes (918-a) a user-account-
- configuration UI for enabling and disabling user accounts on the wrist-wearable device, the user accounts including the two different user accounts for receiving messages via the first messaging application and the user account for receiving messages via the second messaging application, and the method **900** further includes displaying (**918**-*b*) the user-account configuration UI on the display of the wrist-wearable device. The method **900** includes, in response to an input at a toggle associated with one of the user accounts, causing (**918**-*b*) the wrist-wearable device to add or remove messages from the aggregated messaging UI depending on whether a respective user account has been enabled or disabled via the input at the toggle. In some embodiments, the user-account-configuration UI allows (**920**) for enabling only a predetermined number of the user accounts on the wrist-wearable device, thereby helping to preserve limited computing and memory resources on the wrist-wearable device **110**. Examples of the user-account-configuration UI are provided above in FIGS. **6**A-**6**C and **8**A-**8**E.
- (123) In some embodiments, while displaying the aggregated messaging UI, the method **900** includes detecting (**922**-*a*) another single input from the user wearing the wrist-wearable device **110**, the other single input corresponding to a request from the user to access an aggregated call log UI **180**. The method **900** further includes (**926**-*b*), in response to detecting the other single input corresponding to the request from the user to access the aggregated call log UI, ceasing (**926**-*c*) to

display the aggregated messaging UI **160** and displaying (**926**-*d*), on the display **130** of the wrist-wearable device **110**, the aggregated call log UI **180**. Displaying the aggregated call log UI includes displaying a fourth UI element that includes data associated with a first call received via the first messaging application, and a fifth UI element that includes data associated with a second call received via the second messaging application. For example, as shown between FIGS. **1D** and **1F**, a user can transition between the different UI using a single input. In some embodiments, the method **900** includes, while displaying the aggregated call log UI, detecting (**924**-*a*) a selection of the fourth UI element and, in response to detecting the selection, initiating (**924**-*b*) a call via the first messaging application. Examples for initiating a call are provided above in reference to FIGS. **3** and **5**A-**5**B.

- (124) In some embodiments, displaying the aggregated call log UI **180** also includes (**926**) displaying a sixth UI element that includes data from a voicemail received via the first messaging application or the second messaging application. In some embodiments, the fourth and fifth UI elements are (**928**) displayed with a first visual characteristic, and the sixth UI element is displayed with a second visual appearance that is distinct from the first visual characteristic. In some embodiments, displaying the aggregated call log UI includes, (**930**) in accordance with a determination that two calls were received from a same other user, displaying one UI element with data from each of the two calls within the aggregated call log UI. In some embodiments, a first of the two calls is (**932**) an audio call from the same other user and a second of the two calls is a video call from the same other user. In some embodiments, the method **900** includes detecting (**934**-*a*) a new input at the one UI element with data from each of the two calls and, in response to detecting the new input, presenting (**934**-*b*) at the wrist-wearable device selectable options for initiating a video call or initiating an audio call to the same other user, the video call being initiated using a camera of the wrist-wearable device. Additional examples of the UI elements for voicemails and calls are provided above in FIGS. **3** and **5**A-5B.
- (125) In some embodiments, the method **900** includes, while displaying the aggregated call log UI, detecting (**936**-a) a selection of the fourth UI element and, in response to detecting the selection, initiating (**936**-b) a call via the first calling application.
- (126) In some embodiments, the method **900** further includes, while displaying the aggregated call log UI, detecting (**938**-*a*) one other input from the user wearing the wrist-wearable device, the one other input corresponding to a request from the user to access an aggregated contact UI. The method **900** includes in response to detecting (**938**-*b*) the one other input ceasing (**938**-*c*) to display the aggregated call log UI, and displaying (**938**-*d*), on the display of the wrist-wearable device, the aggregated contacts UI. Displaying the aggregated contacts UI including displaying a sixth UI element that includes data from a respective contact of a plurality of contacts associated with the first application and a seventh UI element that includes data from a respective contact of a plurality of contacts associated with the second application. Examples of the aggregated contacts UI **250** are provided above in reference to FIGS. **2-3** and **6**A-**6**C.
- (127) In some embodiments, the wrist-wearable device operates (**940**) using an operating system, and the first and second applications provide data regarding electronic messages, contacts, and calls to the operating system for use in generating the aggregated messaging, call log, and contact UIs by the operating system.
- (128) FIGS. **10**A and **10**B illustrate an example wrist-wearable device **1050**, in accordance with some embodiments. The wrist-wearable device **1050** is an instance of the wrist-wearable device **110** described above in reference to FIGS. **1**A-**9**E, such that wearable device **110** should be understood to have the features of wearable device **1050** and vice versa. FIG. **10**A illustrates a perspective view of the wrist-wearable device **1050** that includes a watch body **1054** decoupled from a watch band **1062**. Watch body **1054** and watch band **1062** can have a substantially rectangular or circular shape and can be configured to allow a user to wear the wrist-wearable device **1050** on a body part (e.g., a wrist). The wrist-wearable device **1050** can include a retaining

mechanism **1063** (e.g., a buckle, a hook and loop fastener) for securing watch band **1062** to the user's wrist. The wrist-wearable device **1050** can also include a coupling mechanism **1060** (e.g., a cradle) for detachably coupling capsule or watch body **1054** (via a coupling surface **1056** of the watch body **1054**) to watch band **1062**.

(129) The wrist-wearable device **1050** can perform various functions associated with ongoing video calls as described above with reference to FIGS. 1A-9E. As will be described in more detail below with reference to FIG. **11**, functions executed by the wrist-wearable device **1050** can include, without limitation, display of visual content to the user (e.g., visual content displayed on display screen **130**), sensing user input (e.g., sensing a touch on button **1058**, sensing biometric data on sensor **1064**, sensing neuromuscular signals on neuromuscular sensor **1065**), messaging (e.g., text, speech, video), image capture, wireless communications (e.g., cellular, near-field, Wi-Fi, personal area network), location determination, financial transactions, providing haptic feedback, alarms, notifications, indications, biometric authentication, health monitoring, sleep monitoring, etc. These functions can be executed independently in watch body **1054**, independently in watch band **1062**, and/or in communication between watch body **1054** and watch band **1062**. In some embodiments, functions can be executed on the wrist-wearable device 1050 in conjunction with an artificialreality environment which includes, but is not limited to, virtual-reality (VR) environments (including non-immersive, semi-immersive, and fully immersive VR environments), augmentedreality environments (including marker-based augmented-reality environments, markerless augmented-reality environments, location-based augmented-reality environments, and projectionbased augmented-reality environments), hybrid reality, and other types of mixed-reality environments. As the skilled artisan will appreciate upon reading the descriptions provided herein, the novel wearable devices described herein can be used with any of these types of artificial-reality environments.

(130) The watch band **1062** can be configured to be worn by a user such that an inner surface of the watch band **1062** is in contact with the user's skin. When worn by a user, the sensor **1064** is in contact with the user's skin. The sensor **1064** can be a biosensor that senses a user's heart rate, saturated oxygen level, temperature, sweat level, or muscle intentions, or a combination thereof. The watch band **1062** can include multiple sensors **1064** that can be distributed on an inside and/or an outside surface of the watch band **1062**. Additionally, or alternatively, the watch body **1054** can include the same or different sensors than the watch band 1062 (or the watch band 1062 can include no sensors at all in some embodiments). For example, multiple sensors can be distributed on an inside and/or an outside surface of watch body **1054**. As described below with reference to FIGS. **10**A and **10**B, the watch body **1054** can include, without limitation, front-facing imaging device **1025**A and/or rear-facing imaging device **1025**B (each an instance of imaging device **147** of FIGS. 1A-1J), a biometric sensor, an IMU, a heart rate sensor, a saturated oxygen sensor, a neuromuscular sensor(s) (e.g., EMG sensors 1146 of FIG. 11), an altimeter sensor, a temperature sensor, a bioimpedance sensor, a pedometer sensor, an optical sensor, a touch sensor, a sweat sensor, etc. The sensor 1064 can also include a sensor that provides data about a user's environment including a user's motion (e.g., an IMU), altitude, location, orientation, gait, or a combination thereof. The sensor **1064** can also include a light sensor (e.g., an infrared light sensor, a visible light sensor) that is configured to track a position and/or motion of watch body **1054** and/or watch band **1062**. Watch band **1062** can transmit the data acquired by the sensor **1064** to watch body **1054** using a wired communication method (e.g., a UART, a USB transceiver) and/or a wireless communication method (e.g., near-field communication, Bluetooth™). Watch band **1062** can be configured to operate (e.g., to collect data using sensor **1064**) independent of whether watch body **1054** is coupled to or decoupled from watch band **1062**.

(131) The watch band **1062** and/or watch body **1054** can include a haptic device **1066** (e.g., a vibratory haptic actuator) that is configured to provide haptic feedback (e.g., a cutaneous and/or kinesthetic sensation) to the user's skin. The sensor **1064** and/or haptic device **1066** can be

configured to operate in conjunction with multiple applications including, without limitation, health monitoring, social media, game playing, and artificial reality (e.g., the applications associated with artificial reality).

(132) In some examples, the watch band **1062** can include a neuromuscular sensor **1065** (e.g., an electromyography (EMG) sensor, a mechanomyogram (MMG) sensor, a sonomyography (SMG) sensor). Neuromuscular sensor **1065** can sense a user's intention to perform certain motor actions. The sensed muscle intention can be used to control certain UIs displayed on the display **130** of the device 110 and/or can be transmitted to device responsible for rendering an artificial-reality environment (e.g., a head-mounted display) to perform an action in an associated artificial-reality environment, such as to control the motion of a virtual device displayed to the user. (133) Signals from neuromuscular sensor **1065** can be used to provide a user with an enhanced interaction with a physical object and/or a virtual object in an artificial-reality application generated by an artificial-reality system (e.g., UI objects presented on the display 130, or another computing device (e.g., a head-mounted display)). Signals from neuromuscular sensor **1065** can be obtained (e.g., sensed and recorded) by one or more neuromuscular sensors 1065 of watch band 1062. Although FIG. 10A shows one neuromuscular sensor 1065, watch band 1062 can include a plurality of neuromuscular sensors **1065** arranged circumferentially on an inside surface of watch band **1062** such that the plurality of neuromuscular sensors **1065** contact the skin of the user. Watch band **1062** can include a plurality of neuromuscular sensors **1065** arranged circumferentially on an inside surface of watch band **1062**. Neuromuscular sensor **1065** can sense and record neuromuscular signals from the user as the user performs muscular activations (e.g., movements, gestures). The muscular activations performed by the user can include static gestures, such as placing the user's hand palm down on a table; dynamic gestures, such as grasping a physical or virtual object; and covert gestures that are imperceptible to another person, such as slightly tensing a joint by co-contracting opposing muscles or using sub-muscular activations. The muscular activations performed by the user can include symbolic gestures (e.g., gestures mapped to other gestures, interactions, or commands, for example, based on a gesture vocabulary that specifies the mapping of gestures to commands).

(134) In some embodiments, input for performing one or more commands at the wrist-wearable device **1050** are detected based on the neuromuscular signals sensed by the wrist-wearable device **1050**. The wrist-wearable device **1050** determines, based on the detected neuromuscular signals, a motor action that the user intends to perform or performs with his or her hand or arm. The motor action can be associated with one or more commands and the one or more processors are further configured to provide the one or more commands associated with the motor action to the wrist-wearable device **1050** to perform the one or more commands. In some embodiments, the motor action is associated with one or more gestures that, when detected by the one or more processors, are further configured to provide the one or more commands associated with the one or more gestures to the wrist-wearable device **1050** to perform the one or more commands.

(135) Different gestures and motor actions can be determined by the wrist-wearable device **1050**. For example, in reference to FIG. **2**, the user **120** can move his or her wrist, hand, arm, etc., up and

For example, in reference to FIG. 2, the user **120** can move his or her wrist, hand, arm, etc., up and down, curl his or her digits, mimic pressing a digit on the screen, create a pinch with his or her hand, etc. When the user **120** performs or intends to perform a motor action or gesture, the wrist-wearable device **110** detects the neuromuscular signals generated by the user action and determines, using the one or more processors, the motor action or gesture. The wrist-wearable device **110** then performs an action based on the one or more commands. Alternatively, in some embodiments, the wrist-wearable device **1050** provides one or more commands associated with the motor action or gesture to the computing device **115** (FIGS. **1A-1J**) to perform the action. For example, a user can request to use the computing device **115**'s cellular network to initiate a call, and the wrist-wearable device **110** can provide a command to the computing device to imitate the call based on the detected motor actions or gestures.

(136) Although the above examples describe gestures such as the movement of digits and pinches, the skilled artisan in this field will appreciate upon reading this disclosure that any number of neuromuscular signals can be detected, such as movement of the arm, the elbow, the wrist, individual digits (e.g., the little finger or the thumb), portions of the digits, etc. Further, any number of gestures can be associated with a motor action. For example, instead of a pinch, a confirmation can be a fist, making an open circle with the digits, a double tap, etc.

(137) The wrist-wearable device **1050** can include a coupling mechanism (also referred to as a cradle) for detachably coupling watch body **1054** to watch band **1062**. A user can detach watch body **1054** from watch band **1062** in order to reduce the encumbrance of the wrist-wearable device **1050** to the user. The wrist-wearable device **1050** can include a coupling surface **1056** on the watch body **1054** and/or coupling mechanism(s) **1060** (e.g., a cradle, a tracker band, a support base, a clasp). A user can perform any type of motion to couple watch body **1054** to watch band **1062** and to decouple watch body **1054** from watch band **1062**. For example, a user can twist, slide, turn, push, pull, or rotate watch body 1054 relative to watch band 1062, or a combination thereof, to attach watch body 1054 to watch band 1062 and to detach watch body 1054 from watch band 1062. (138) As shown in the example of FIG. **10**A, watch band coupling mechanism **1060** can include a type of frame or shell that allows watch body **1054** coupling surface **1056** to be retained within watch band coupling mechanism **1060**. Watch body **1054** can be detachably coupled to watch band **1062** through a friction fit, magnetic coupling, a rotation-based connector, a shear-pin coupler, a retention spring, one or more magnets, a clip, a pin shaft, a hook and loop fastener, or a combination thereof. In some examples, watch body **1054** can be decoupled from watch band **1062** by actuation of release mechanism 1070. The release mechanism 1070 can include, without limitation, a button, a knob, a plunger, a handle, a lever, a fastener, a clasp, a dial, or a latch, or a combination thereof.

(139) The wrist-wearable device **1050** can include a single release mechanism **1070** or multiple release mechanisms **1070** (e.g., two release mechanisms **1070** positioned on opposing sides of the wrist-wearable device **1050** such as spring-loaded buttons). As shown in FIG. **10**A, the release mechanism **220** can be positioned on watch body **1054** and/or watch band coupling mechanism **1060**. Although FIG. **10**A shows release mechanism **1070** positioned at a corner of watch body **1054** and at a corner of watch band coupling mechanism **1060**, the release mechanism **1070** can be positioned anywhere on watch body **1054** and/or watch band coupling mechanism **1060** that is convenient for a user of wrist-wearable device **1050** to actuate. A user of the wrist-wearable device **1050** can actuate the release mechanism **1070** by pushing, turning, lifting, depressing, shifting, or performing other actions on the release mechanism **1070**. Actuation of the release mechanism **1070** can release (e.g., decouple) the watch body **1054** from the watch band coupling mechanism **1060** and the watch band **1062** allowing the user to use the watch body **1054** independently from watch band **1062**. For example, decoupling the watch body **1054** from the watch band **1062** can allow the user to capture images using rear-facing imaging device **1025**B.

(140) FIG. **10**B is a perspective view of another example of the wrist-wearable device **1050**. The wrist-wearable device **1050** of FIG. **10**B can include a watch body interface **1080** (another example of a cradle for the capsule portion of the wrist-wearable device **110**). The watch body **1054** can be detachably coupled to the watch body interface **1080**. Watch body **1054** can be detachably coupled to watch body interface **1080** through a friction fit, magnetic coupling, a rotation-based connector, a shear-pin coupler, a retention spring, one or more magnets, a clip, a pin shaft, or a hook and loop fastener, or a combination thereof.

(141) In some examples, watch body **1054** can be decoupled from watch body interface **1080** by actuation of a release mechanism. The release mechanism can include, without limitation, a button, a knob, a plunger, a handle, a lever, a fastener, a clasp, a dial, or a latch, or a combination thereof. In some examples, the wristband system functions can be executed independently in watch body **1054**, independently in watch body interface **1080**, and/or in communication between watch body

**1054** and watch body interface **1080**. Watch body interface **1080** can be configured to operate independently (e.g., execute functions independently) from watch body **1054**. Additionally, or alternatively, watch body **1054** can be configured to operate independently (e.g., execute functions independently) from watch body interface **1080**. As will be described in more detail below with reference to the block diagram of FIG. **11**, watch body interface **1080** and/or watch body **1054** can each include the independent resources required to independently execute functions. For example, watch body interface **1080** and/or watch body **1054** can each include a power source (e.g., a battery), a memory, data storage, a processor (e.g., a central processing unit (CPU)), communications, a light source, and/or input/output devices.

- (142) In this example, watch body interface **1080** can include all of the electronic components of watch band **1062**. In additional examples, one or more electronic components can be housed in watch body interface **1080** and one or more other electronic components can be housed in portions of watch band **1062** away from watch body interface **1080**.
- (143) FIGS. **10**C and **10**D illustrate a portable device **1090**, in accordance with some embodiments. The portable device **1090** is an instance of the portable device **113** described above in reference to FIGS. **1**G-**1**J, such that portable device **113** should be understood to have the features of portable device **1090** and vice versa. The portable device **1090** includes similar components as the wristwearable device **1050**. For example, the portable device **1090** includes a body **1054** (e.g., removable or portable display) that can be decoupled from a base **1062** (which is similar in function to the watch band **1062**). The portable device **1090** can include a retaining mechanism **1063** for securing the base **1062** to the portable device **1090**. Further, the portable device **1090** can also include a coupling mechanism **1060** (e.g., a magnetic surface or a cradle) for detachably coupling the body **1054** (via a coupling surface **1056** of the body **1054**) to base **1062**. (144) The portable device **1090** can perform various functions associated with the communications hub mode described above with reference to FIGS. 1A-8E and operations of the methods described in reference to FIGS. **9**A-**9**E. The portable device **1090** can include, without limitation, display of visual content to the user (e.g., visual content displayed on display screen 115), sensing user input (e.g., sensing a touch on button 1058, sensing biometric data on sensor 1064, sensing neuromuscular signals on neuromuscular sensor 1065), messaging (e.g., text, speech, video), image capture, wireless communications (e.g., cellular, near field, Wi-Fi, personal area network), location determination, financial transactions, providing haptic feedback, alarms, notifications, biometric authentication, health monitoring, sleep monitoring, etc. The body **1054** can include, without limitation, front-facing imaging device **1025**A and/or rear-facing imaging device **1025**B (each an
- instance of imaging device **147**; FIGS. **1**A-**1**J). The base **1062** and/or body **1054** can include a haptic device **1066** (e.g., a vibratory haptic actuator) that is configured to provide haptic feedback (e.g., a cutaneous and/or kinesthetic sensation) to the user. These functions can be executed independently in body **1054**, independently in base **1062**, and/or in communication between body **1054** and base **1062**. In some embodiments, functions can be executed on the wrist-wearable device **1050** in conjunction with an artificial-reality environment. As the skilled artisan will appreciate upon reading the descriptions provided herein, the novel wearable devices described herein can be used with any type of artificial-reality environment.

  (145) As shown in the example of FIG. **10**D, coupling mechanism **1060** can include a type of frame
- or shell that allows body **1054** coupling surface **1056** to be retained within body coupling mechanism **1060**. Body **1054** can be detachably coupled to base **1062** through a friction fit, magnetic coupling, a rotation-based connector, a shear-pin coupler, a retention spring, one or more magnets, a clip, a pin shaft, a hook and loop fastener, or a combination thereof. In some examples, body **1054** can be decoupled from base **1062** by actuation of release mechanism **1070**. The release mechanism **1070** can include, without limitation, a button, a knob, a plunger, a handle, a lever, a fastener, a clasp, a dial, a latch, or a combination thereof.
- (146) The device **1050** can include a single release mechanism **1070** or multiple release

mechanisms **1070** (e.g., two release mechanisms **1070** positioned on opposing sides of the wrist-wearable device **1050**, such as spring-loaded buttons). As shown in FIG. **10**C, the release mechanism **220** can be positioned on body **1054** and/or body coupling mechanism **1060**. Although FIG. **10**C shows release mechanism **1070** positioned at a corner of body **1062**, the release mechanism **1070** can be positioned anywhere that is convenient for a user of the portable device **1090** to actuate.

- (147) FIG. **10**D is a view of the portable device **1090** with a decoupled watch body **1054**. The portable device **1090** of FIG. **10**C can include a body interface **1080**. The body **1054** can be detachably coupled to the body interface **1080**. Body **1054** can be detachably coupled to body interface **1080** through a friction fit, magnetic coupling, a rotation-based connector, a shear-pin coupler, a retention spring, one or more magnets, a clip, a pin shaft, a hook and loop fastener, or a combination thereof. In some examples, body **1054** can be decoupled from body interface **1080** by actuation of a release mechanism **1070**.
- (148) In some examples, the system functions can be executed independently in body 1054, independently in body interface 1080, and/or in communication between body 1054 and body interface 1080. Body interface 1080 can be configured to operate independently (e.g., execute functions independently) from body 1054. Additionally, or alternatively, body 1054 can be configured to operate independently (e.g., execute functions independently) from body interface 1080. As will be described in more detail below with reference to the block diagram of FIG. 11, body interface 1080 and/or body 1054 can each include the independent resources required to independently execute functions. For example, body interface 1080 and/or body 1054 can each include a power source (e.g., a battery), a memory, data storage, a processor (e.g., a CPU), communications, a light source, and/or input/output devices.
- (149) FIG. 11 is a block diagram of a wrist-wearable device system 1100, according to at least one embodiment of the present disclosure. The wrist-wearable device 110 described in detail above is an example wrist-wearable device system 1100, so wrist-wearable device 110 will be understood to include the components shown and described for system 1100 below. In some embodiments, the portable device 113 described above in reference to FIGS. 1G-1J, 10C, and 10D includes one or more components shown and described for system 1100 below. The wrist-wearable device system 1100 can have a split architecture (e.g., a split mechanical architecture, a split electrical architecture) between a body 1104 (e.g., a capsule or (watch) body 1054) and a watch band 1112 (e.g., a band portion or watch band (or base) 1062), which was described above in reference to FIGS. 10A-10D. Each of watch body 1104 and watch band 1112 can have a power source, a processor, a memory, sensors, a charging device, and a communications device that enables each of watch body 1104 and watch band 1112 to execute computing, controlling, communication, and sensing functions independently in watch body 1104, independently in watch band 1112, and/or in communication between watch body 1104 and watch band 1112.
- (150) For example, watch body **1104** can include battery **1128**, CPU **1126**, storage **1102**, heart rate sensor **1158**, EMG sensor **1146**, SpO.sub.2 sensor **1154**, altimeter **1148**, IMU **1142**, random access memory **1103**, charging input **1130** and communication devices NFC **1115**, LTE **1118**, and Wi-Fi/Bluetooth™ **1120**. Similarly, watch band **1112** can include battery **1138**, microcontroller unit **1152**, memory **1150**, heart-rate sensor **1158**, EMG sensor **1146**, SpO2 sensor **1154**, altimeter **1148**, IMU **1142**, charging input **1134** and wireless transceiver **1140**. In some examples, a level of functionality of at least one of watch band **1112** or watch body **1104** can be modified when watch body **1104** is detached from watch band **1112**. The level of functionality that can be modified can include the functionality of at least one sensor (e.g., heart-rate sensor **1158**, EMG sensor **1146**). Each of watch body **1104** and watch band **1112** can execute instructions stored in storage **1102** and memory **1150** respectively that enables at least one sensor (e.g., heart-rate sensor **1158**, EMG sensor **1146**) in watch band **1112** to acquire data when watch band **1112** is detached from watch body **1104** and when watch band **1112** is attached to watch body **1104**.

(151) Watch body **1104** and watch band **1112** can further execute instructions stored in storage **1102** and memory **1150** respectively that enables watch band **1112** to transmit the acquired data to watch body **1104** (or other computing device such as a head mounted display or other computing device **115**; FIGS. **1A-1J**) using wired communications **1127** and/or wireless transceiver **1140**. For example, watch body **1104** can display visual content to a user on touchscreen display **1113** (e.g., an instance of display **130**) and play audio content on speaker **125**. Watch body **1104** can receive user inputs such as audio input from microphone **1197** and touch input from buttons **1124**. Watch body **1104** can also receive inputs associated with a user's location and/or surroundings. For example, watch body **1104** can receive location information from GPS **1116** and/or altimeter **1148** of watch band **1112**.

(152) Watch body **1104** can receive image data from at least one imaging device **147** (e.g., a

camera). Imaging device **147** can include front-facing imaging device **1025**A (FIG. **10**A) and/or rear-facing imaging device **1025**B (FIG. **10**B). Front-facing imaging device **1025**A and/or rearfacing imaging device 1025B can capture wide-angle images of the area surrounding front-facing imaging device **1025**A and/or rear-facing imaging device **1025**B such as hemispherical images (e.g., at least hemispherical, substantially spherical), 180-degree images, 360-degree area images, panoramic images, ultra-wide area images, or a combination thereof. In some examples, frontfacing imaging device **1025**A and/or rear-facing imaging device **1025**B can be configured to capture images having a range between 45 degrees and 360 degrees. Certain input information received by watch body **1104** (e.g., user inputs) can be communicated to watch band **1112**. Similarly, certain input information (e.g., acquired sensor data, neuromuscular sensor data) received by watch band **1112** can be communicated to watch body **1104**. (153) Watch body **1104** and watch band **1112** can receive a charge using a variety of techniques. In some embodiments, watch body 1104 and watch band 1112 can use a wired charging assembly (e.g., power cords) to receive the charge. Alternatively, or in addition, watch body **1104** and/or watch band **1112** can be configured for wireless charging. For example, a portable charging device can be designed to mate with a portion of watch body 1104 and/or watch band 1112 and wirelessly deliver usable power to a battery of watch body **1104** and/or watch band **1112**. (154) Watch body **1104** and watch band **1112** can have independent power and charging sources to enable each to operate independently. Watch body **1104** and watch band **1112** can also share power (e.g., one can charge the other) via power management IC 1132 in watch body 1104 and power management IC **1136** in watch band **1112**. Power management IC **1132** and power management IC **1136** can share power over power and ground conductors and/or over wireless charging antennas. (155) Wrist-wearable device system **1100** can operate in conjunction with a health-monitoring application that acquires biometric and activity information associated with the user. The healthmonitoring application can be designed to provide information to a user that is related to the user's health. For example, wrist-wearable device system **1100** can monitor a user's physical activity by acquiring data from IMU 1142 while simultaneously monitoring the user's heart rate via heart-rate sensor **1158** and saturated blood oxygen levels via SpO.sub.2 sensor **1154**. CPU **1126** can process the acquired data and display health-related information to the user on touchscreen display **1113**. (156) Wrist-wearable device system **1100** can detect when watch body **1104** and watch band **1112** are connected to one another (e.g., mechanically connected and/or electrically or magnetically connected) or detached from one another. For example, pin(s), power/ground connections **1160**, wireless transceiver **1140**, and/or wired communications **1127** can detect whether watch body **1104** and watch band 1112 are mechanically and/or electrically or magnetically connected to one another (e.g., detecting a disconnect between the one or more electrical contacts of power/ground connections 1160 and/or wired communications 1127). In some examples, when watch body 1104 and watch band 1112 are mechanically and/or electrically disconnected from one another (e.g., watch body **1112** has been detached from watch band **1112** as described with reference to FIGS.

**10**A and **10**B), watch body **1104** and/or watch band **1112** can operate with modified level of

functionality (e.g., reduced functionality) as compared to when watch body **1104** and watch band **1112** are mechanically and/or electrically connected to one another. The modified level of functionality (e.g., switching from full functionality to reduced functionality and from reduced functionality to full functionality) can occur automatically (e.g., without user intervention) when wrist-wearable device system **1100** determines that watch body **1104** and watch band **1112** are mechanically and/or electrically disconnected from one another and connected to each other, respectively.

(157) Modifying the level of functionality (e.g., reducing the functionality in watch body **1104** and/or watch band **1112**) can reduce power consumption in battery **1128** and/or battery **1138**. For example, any of the sensors (e.g., heart-rate sensor **1158**, EMG sensor **1146**, SpO.sub.2 sensor **1154**, altimeter **1148**), processors (e.g., CPU **1126**, microcontroller unit **1152**), communications elements (e.g., NFC **1115**, GPS **1116**, LTE **1118**, Wi-Fi/Bluetooth<sup>TM</sup> **1120**), or actuators (e.g., haptics **1122**, **1149**) can reduce functionality and/or power consumption (e.g., enter a sleep mode) when watch body **1104** and watch band **1112** are mechanically and/or electrically disconnected from one another. Watch body **1104** and watch band **1112** are mechanically and/or electrically connected to one another. The level of functionality of each of the sensors, processors, actuators, and memory can be independently controlled.

(158) As described above, wrist-wearable device system **1100** can detect when watch body **1104** and watch band **1112** are coupled to one another (e.g., mechanically connected and/or electrically connected) or decoupled from one another. In some examples, watch body **1104** can modify a level of functionality (e.g., activate and/or deactivate certain functions) based on whether watch body **1104** is coupled to watch band **1112**. For example, CPU **1126** can execute instructions that detect when watch body **1104** and watch band **1112** are coupled to one another and activate front-facing imaging device **1025**A based on receiving user input (e.g., a user touch input from touchscreen display **1113**, a user voice command from microphone **1197**, a user gesture recognition input from EMG sensor **1146**). (159) When CPU **1126** detects that watch body **1104** and watch band **1112** are decoupled from one another, CPU **1126** can modify a level of functionality (e.g., activate and/or deactivate additional

another, CPU **1126** can modify a level of functionality (e.g., activate and/or deactivate additional functions). For example, CPU **1126** can detect when watch body **1104** and watch band **1112** are decoupled from one another and activate rear-facing imaging device **1025**B. CPU **1126** can activate rear-facing imaging device **1025**B automatically (e.g., without user input) and/or based on receiving user input (e.g., a touch input, a voice input, an intention detection). Automatically activating rear-facing imaging device **1025**B can allow a user to take wide-angle images without having to provide user input to activate rear-facing imaging device **1025**B.

(160) In some examples, rear-facing image can be activated based on an image-capture criterion (e.g., an image quality, an image resolution). For example, rear-facing imaging device **1025**B can receive an image (e.g., a test image). CPU **1126** and/or rear-facing imaging device **1025**B can analyze the received test image data and determine whether the test image data satisfies the image capture criterion (e.g., the image quality exceeds a threshold, the image resolution exceeds a threshold). Rear-facing imaging device **1025**B can be activated when the test image data satisfies the image-capture criterion. Additionally, or alternatively, rear-facing imaging device **1025**B can be deactivated when the test image data fails to satisfy the image-capture criterion.

(161) In some examples, CPU **1126** can detect when watch body **1104** is coupled to watch band **1112** and deactivate rear-facing imaging device **1025**B. CPU **1126** can deactivate rear-facing imaging device **1025**B automatically (e.g., without user input) and/or based on receiving user input (e.g., a touch input, a voice input, an intention detection). Deactivating rear-facing imaging device **1025**B can automatically (e.g., without user input) reduce the power consumption of watch body **1104** and increase the battery charge time in watch body **1104**. In some examples, wrist-wearable device system **1100** can include a coupling sensor **1107** that senses whether watch body **1104** is

coupled to or decoupled from watch band **1112**. Coupling sensor **1107** can be included in any of watch body **1104**, watch band **1112**, or watch band coupling mechanism **1060** of FIGS. **10**A and **10**B. Coupling sensor **1107** (e.g., a proximity sensor) can include, without limitation, an inductive proximity sensor, a limit switch, an optical proximity sensor, a capacitive proximity sensor, a magnetic proximity sensor, an ultrasonic proximity sensor, or a combination thereof. CPU **1126** can detect when watch body **1104** is coupled to watch band **1112** or decoupled from watch band **1112** by reading the status of coupling sensor **1107**.

- (162) Further embodiments also include various subsets of the above embodiments, including embodiments described with reference to FIGS. **1**A-**11** combined or otherwise re-arranged. (163) Example Aspects
- (164) A few example aspects will now be briefly described.
- (165) (A1) In accordance with some embodiments, a method of aggregating and guiding access to data from multiple different electronic messaging applications via a quickly accessible communications-hub mode is provided. The method includes displaying, on a display of the wristwearable device that includes at least a first messaging application and a second messaging application distinct from the first messaging application, a watch-face UI. The watch-face UI can be a UI that is displayed by default at the wrist-wearable device. An example watch-face UI is shown in FIG. 1A, in which the example watch-face UI includes at least a current time, a current day of the week, a current date, and current weather information. The method further includes while displaying the watch-face UI, detecting a single input from a user wearing the wrist-wearable device, the single input corresponding to a request from the user to activate a communications-hub mode. The communications-hub mode provides the user access to two or more of an aggregated messaging UI, an aggregated call log UI, and an aggregated contacts UI, each including data from both of the first messaging application and the second messaging application (in some embodiments, these aggregated UIs are only accessible while the communications-hub mode is active). The method further includes, in response to detecting the single input corresponding to the request from the user to activate the communications-hub mode ceasing to display the watch-face UI, displaying, on the display of the wrist-wearable device, the aggregated messaging UI. Displaying the aggregated messaging UI includes displaying a first UI element that includes at least part of a first message received via the first messaging application and a second UI element that includes at least part of a second message received via the second messaging application. (166) (A2) In some embodiments of (A1), the user wearing the wrist-wearable device has two different user accounts for receiving messages via the first messaging application, and the aggregated messaging UI also includes a third UI element that includes at least part of a third message received via the first messaging application. The third message is sent to a first of the two different user accounts via the first messaging application, and the first message is sent to a second of the two different user accounts via the first messaging application. In other words, the wristwearable device is configured to continuously add new messages as they are received across different applications on the wrist-wearable device to the aggregated messaging UI, such that the aggregated messaging UI can serve to guide the user to access each new message via the aggregated messaging UI without having to open any of the individual applications of the different applications (and without having to require a user to log in and out of the various applications to access messaging data for different user accounts that might each be associated with one messaging application).

(167) (A3) In some embodiments of (A2), the method further includes displaying, within the aggregated messaging UI, a UI element for creating a new message. In response to detecting a selection of the UI element for creating a new message, the method includes in accordance with a determination that the two different user accounts for receiving messages via the first messaging application are enabled on the wrist-wearable device (e.g., are enabled via a configuration UI associated with the communications-hub mode, as discussed in more detail with reference to FIGS.

**6**A-**8**E below), presenting (i) a first selectable option that, when selected, causes the wrist-wearable device to initiate creation of a message to be sent using the first of the two different user accounts and (ii) a second selectable option that, when selected, causes the wrist-wearable device to initiate creation of a message to be sent using the second of the two different user accounts. In other words, the aggregated messaging UI can allow the user to view conversational flows (e.g., messages sent and received via the first messaging application) occurring for multiple different user accounts associated with one messaging application (here, the two different user accounts that are both associated with the first messaging application) all in the aggregated messaging UI and without requiring the user to log in and out of any particular application to switch between various user accounts to view messaging data for different user accounts.

(168) (A4) In some embodiments of (A3), the method further includes, in response to detecting the selection of the UI element for creating a new message, in accordance with a determination that at least one user account for receiving messages via the second messaging application is enabled on the wrist-wearable device, presenting a third selectable option that, when selected, causes the wrist-wearable device to initiate creation of a message to be sent using the at least one user account for the second messaging application. The first, second, and third selectable options can be presented within one UI on the wrist-wearable device.

(169) (A5) In some embodiments of (A4), the wrist-wearable device includes a user-account-configuration UI for enabling and disabling user accounts on the wrist-wearable device, the user accounts including the two different user accounts for receiving messages via the first messaging application and the user account for receiving messages via the second messaging application. The method further includes displaying the user-account configuration UI on the display of the wrist-wearable device. The method includes, in response to an input at a toggle associated with one of the user accounts, causing the wrist-wearable device to add or remove messages from the aggregated messaging UI depending on whether a respective user account has been enabled or disabled via the input at the toggle.

(170) (A6) In some embodiments of (A5), the user-account-configuration UI allows for enabling only a predetermined number of user accounts on the wrist-wearable device (e.g., the predetermined number can be 3, 4, 5, or 6 in some embodiments), thereby helping to preserve limited computing and memory resources on the wrist-wearable device while still allowing users to view messaging data associated with a number of different user accounts.

(171) (A7) In some embodiments of any of (A1)-(A6), the method further includes, while displaying the aggregated messaging UI, detecting another single input from the user wearing the wrist-wearable device, the other single input corresponding to a request from the user to access an aggregated call log UI. The method includes, in response to detecting the other single input corresponding to the request from the user to access the aggregated call log UI, ceasing to display the aggregated messaging UI (while the communications-hub mode remains active), and displaying, on the display of the wrist-wearable device, the aggregated call log UI. Displaying the aggregated call log UI includes displaying (i) a fourth UI element that includes data associated with a first call received via the first messaging application, and (ii) a fifth UI element that includes data associated with a second call received via the second messaging application. This further enables a sustained human-computer interaction that allows a user to quickly go from an aggregated view of message data to an aggregated view of call logs from various applications installed (or otherwise available) on the wrist-wearable device. The first and second messaging applications can be social-media applications with messaging and calling features associated therewith.

(172) (A8) In some embodiments of (A7), the method further includes, while displaying the aggregated call log UI, detecting a selection of the fourth UI element. The method includes, in response to detecting the selection, initiating a call via the first messaging application. In other words, in some embodiments, calls can be initiated directly from the aggregated call log UI and without opening any particular calling applications (either on the wrist-wearable device or on a

device connected to the wrist-wearable device, such as a smartphone).

- (173) (A9) In some embodiments of (A7), displaying the aggregated call log UI also includes displaying a sixth UI element that includes data from a voicemail received via the first messaging application or the second messaging application.
- (174) (A10) In some embodiments of (A9), the fourth and fifth UI elements are displayed with a first visual characteristic, and sixth UI element is displayed with a second visual appearance that is distinct from the first visual characteristic. For example, the voicemail icon or indicator is distinct from indicators or icons for received and/or outgoing calls such that the user can easily identify voicemails from among indicators for different calls (or other messages).
- (175) (A11) In some embodiments of (A10), displaying the aggregated call log UI includes, in accordance with a determination that two calls were received from a same other user, displaying one UI element with data from each of the two calls within the aggregated call log UI.
- (176) (A12) In some embodiments of (A11), a first of the two calls is an audio call from the same other user and a second of the two calls is a video call from the same other user.
- (177) (A13) In some embodiments of (A12), the method further includes detecting a new input at the one UI element with data from each of the two calls. The method includes, in response to detecting the new input, displaying, at the wrist-wearable device, selectable options for initiating a video call or initiating an audio call to the same other user. The video call would be initiated using a camera of the wrist-wearable device (and can be initiated without opening any particular video calling applications (either on the wrist-wearable device or on a device connected to the wrist-wearable device such as a smartphone)).
- (178) (A14) In some embodiments of any of (A7)-(A13), the method further includes, while displaying the aggregated call log UI, detecting one other input from the user wearing the wrist-wearable device, the one other input corresponding to a request from the user to access an aggregated contacts UI. The method includes, in response to detecting the one other input, ceasing to display the aggregated call log UI, and displaying, on the display of the wrist-wearable device, the aggregated contacts UI (all while the communications-hub mode remains active at the wrist-wearable device, such that the communications-hub mode enables access to each of the three different aggregated UIs). Displaying the aggregated contacts UI includes displaying (i) a sixth UI element that includes data from a respective contact of a plurality of contacts associated with the first messaging application and (ii) a seventh UI element that includes data from a respective contact of a plurality of contacts associated with the second messaging application.
- (179) (A15) In some embodiments of any of (A1)-(A14), the watch-face UI includes an indication to the user that the aggregated messaging UI is available via a single input.
- (180) (A16) In some embodiments of any of (A1)-(A15), the aggregated messaging UI includes an indication to the user that the aggregated call log UI is available via a single input.
- (181) (A17) In some embodiments of any of (A1)-(A16), the wrist-wearable device operates using an operating system, and the first and second messaging applications provide data regarding electronic messages, contacts, and calls to the operating system for use in generating the aggregated messaging, call log, and contacts UIs by the operating system. In other words, in some embodiments, the aggregated messaging, call log, and contacts UIs are distinct from the first and second messaging applications, and the data regarding messages, calls, and contacts from the applications is provided for display in the aggregated UIs by way of the operating system.
- (182) (B1) In accordance with some embodiments, a wrist-wearable device for activating a communications-hub mode that includes two or more of an aggregated messaging UI, aggregated call log UI, and aggregated contacts UI is provided. The wrist-wearable device is configured to perform or cause performance of the method of any of (A1)-(A17).
- (183) (C1) In accordance with some embodiments, a capsule housing the display recited in (A1) is provided. The capsule is configured to couple with a band to form a wrist-wearable device, and the capsule includes one or more processors configured to perform or cause performance of the method

of any of (A1)-(A17).

- (184) (D1) In accordance with some embodiments, a non-transitory, computer-readable storage medium is provided. The non-transitory, computer-readable storage medium includes instructions that, when executed by a wrist-wearable device, cause the wrist-wearable device to perform or cause performance of the method of any of (A1)-(A17).
- (185) The various UIs and interactions described above in reference to FIGS. **1**A-**11** are non-limiting. The various UIs and interactions described above in reference to FIGS. **1**A-**11** can be implemented on devices with other form factors, including wrist-wearable devices with other form factors including any of the form factors for a wrist-wearable device shown in U.S. Design patents application Ser. Nos. 29/740,675 and 29/770,243, each of which is incorporated by reference herein in its respective entirety and on which any of the UIs and techniques described herein can be presented.
- (186) Any data collection performed by the devices described herein and/or any devices configured to perform or cause the performance of the different embodiments described above in reference to FIGS. 1A-11, hereinafter the "devices," is done with user consent and in a manner that is consistent with all applicable privacy laws. Users are given options to allow the devices to collect data, as well as the option to limit or deny collection of data by the devices. A user is able to opt in or opt out of any data collection at any time. Further, users are given the option to request the removal of any collected data.
- (187) It will be understood that, although the terms "first," "second," etc., may be used herein to describe various elements, these elements should not be limited by these terms. These terms are only used to distinguish one element from another.
- (188) The terminology used herein is for the sole purpose of describing particular embodiments and is not intended to be limiting of the claims. As used in the description of the embodiments and the appended claims, the singular forms "a," "an" and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will also be understood that the term "and/or" as used herein refers to and encompasses any and all possible combinations of one or more of the associated listed items. It will be further understood that the terms "comprises" and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof. (189) As used herein, the term "if" can be construed to mean "when" or "upon" or "in response to determining" or "in accordance with a determination" or "in response to detecting," that a stated condition precedent is true, depending on the context. Similarly, the phrase "if it is determined [that a stated condition precedent is true]" or "if [a stated condition precedent is true]" or "when [a stated condition precedent is true]" can be construed to mean "upon determining" or "in response to determining" or "in accordance with a determination" or "upon detecting" or "in response to detecting" that the stated condition precedent is true, depending on the context.
- (190) The foregoing description, for purpose of explanation, has been described with reference to specific embodiments. However, the illustrative discussions above are not intended to be exhaustive or to limit the claims to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The embodiments were chosen and described in order to best explain principles of operation and practical applications, to thereby enable others skilled in the art.

## **Claims**

1. A non-transitory computer-readable storage medium, comprising instruction which, when executed by one or more processors, cause the one or more processors to: display, at an electronic device, an aggregated messaging user interface (UI) that includes data from a plurality of user

accounts associated with one or more messaging applications; detect a selection of a UI element within the aggregated messaging UI, the UI element for creating a new message via at least one respective user account of the plurality of user accounts; and in response to detecting the selection, and in accordance with a determination that messaging capabilities for two or more respective user accounts of the plurality of user accounts are enabled at the electronic device, present: a first selectable option that, when selected causes the electronic device to initiate creation of a message to be sent using a first respective user account of the plurality of user accounts, and a second selectable option that, when selected, causes the electronic device to initiate creation of a message to be sent using a second respective user account of the plurality of enabled user accounts.

- 2. The non-transitory computer-readable storage medium of claim 1, wherein the first respective user account of the plurality of enabled user accounts and the second respective user account of the plurality of enabled user accounts are associated with a same messaging application of the one or more messaging applications.
- 3. The non-transitory computer-readable storage medium of claim 1, wherein: the first respective user account is associated with a first messaging application of the one or more messaging applications, and the second respective user account is associated with a second messaging application of the one or more messaging applications.
- 4. The non-transitory computer-readable storage medium of claim 1, wherein the first and second respective user accounts are associated with a first messaging application of the one or more messaging applications, and the one or more processors are further configured to: in response to detecting the selection of the UI element for creating the new message: in accordance with a determination that a third respective user accounts of the plurality of user accounts for receiving messages via the second messaging application is enabled on the electronic device, present a third selectable option that, when selected, causes the electronic device to initiate creation of a message to be sent using the third respective user account, wherein the first, second, and third selectable options are presented within one UI on the electronic device.
- 5. The non-transitory computer-readable medium of claim 1, wherein the one or more processors are further configured to: after selection of a respective selectable option of the first or second selectable options, present a predetermined text message to send, at the display, based on one or more messages of a respective messaging application of the one or more messaging applications, the respective messaging application associated with the respective selectable option that is currently displayed within the aggregated messaging UI.
- 6. The non-transitory computer-readable medium of claim 1, wherein the one or more processors are further configured to: while displaying the aggregated messaging UI, detect another user input corresponding to a request from to access an aggregated call log UI; and in response to detecting the other user input corresponding to the request to access the aggregated call log UI: cease to display the aggregated messaging UI, and display, on the display of the electronic device, the aggregated call log UI, wherein displaying the aggregated call log UI includes displaying (i) a first call-log UI element that includes data associated with a call from the first respective user account, and (ii) a second call-log UI element that includes data associated with a call from a second respective user account.
- 7. The non-transitory computer-readable storage medium of claim 1, wherein the electronic device is a wrist-wearable device.
- 8. The non-transitory computer-readable storage medium of claim 7, wherein the one or more processors are further configured to: in response to detecting a user input directed to the first or the second selectable option within the aggregated messaging UI, cause presentation of a keyboard display UI element at another display of a different electronic device, distinct from the wrist-wearable device.
- 9. The non-transitory computer-readable storage medium of claim 1, wherein: the electronic device includes a user-account-configuration UI for enabling and disabling user accounts on the electronic

device, and the user-account-configuration UI allows for enabling only a predetermined number of the user accounts on the electronic device, thereby helping to preserve limited computing and memory resources on the electronic device.

- 10. The non-transitory computer-readable storage medium of claim 1, wherein: the aggregated messaging UI includes a first UI element including one or more messages received by a first messaging application of the one or more messaging applications, and the aggregated messaging UI includes a second UI element including one or more other messages received by a second messaging application, distinct from the first messaging application, of the one or more messaging applications.
- 11. A method, comprising: displaying, at an electronic device, an aggregated messaging user interface (UI) that includes data from a plurality of user accounts associated with one or more messaging applications; detecting a selection of a UI element within the aggregated messaging UI, the UI element for creating a new message via at least one respective user account of the plurality of user accounts; and in response to detecting the selection, and in accordance with a determination that messaging capabilities for a plurality of different of the plurality of user accounts are enabled at the electronic device, presenting: a first selectable option that, when selected causes the electronic device to initiate creation of a message to be sent using a first respective user account of the plurality of user accounts, and a second selectable option that, when selected, causes the electronic device to initiate creation of a message to be sent using a second respective user account of the plurality of enabled user accounts.
- 12. The method of claim 11, wherein the each of the plurality of user accounts is associated with a same messaging application of the one or more messaging applications.
- 13. The method of claim 11, wherein: the first respective user account is associated with a first messaging application of the one or more messaging applications, and the second respective user account is associated with a second messaging application of the one or more messaging applications.
- 14. The method of claim 11 wherein the first and second respective user accounts are associated with a first messaging application of the one or more messaging applications, further comprising: in response to detecting the selection of the UI element for creating the new message: in accordance with a determination that a third respective user accounts of the plurality of user accounts for receiving messages via the second messaging application is enabled on the electronic device, presenting a third selectable option that, when selected, causes the electronic device to initiate creation of a message to be sent using the third respective user account, wherein the first, second, and third selectable options are presented within one UI on the electronic device.

  15. The method of claim 11, further comprising: after selection of a respective selectable option of the first or second selectable options, presenting a predetermined text message to send, at the display, based on one or more messages of a respective messaging application of the one or more messaging applications, the respective messaging application associated with the respective selectable option that is currently displayed within the aggregated messaging UI.
- 16. A system, comprising: a display; one or more processors; and memory, comprising instructions for causing the one or more processors to: display, at an electronic device, an aggregated messaging user interface (UI) that includes data from a plurality of user accounts associated with one or more messaging applications; detect a selection of a UI element within the aggregated messaging UI, the UI element for creating a new message via at least one respective user account of the plurality of user accounts; in response to detecting the selection, and in accordance with a determination that messaging capabilities for a plurality of different of the plurality of user accounts are enabled at the electronic device, present: a first selectable option that, when selected causes the electronic device to initiate creation of a message to be sent using a first respective user account of the plurality of user accounts, and a second selectable option that, when selected, causes the electronic device to initiate creation of a message to be sent using a second respective user account of the plurality of

enabled user accounts.

- 17. The system of claim 16, wherein the each of the plurality of user accounts is associated with a same messaging application of the one or more messaging applications.
- 18. The system of claim 16, wherein: the first respective user account is associated with a first messaging application of the one or more messaging applications, and the second respective user account is associated with a second messaging application of the one or more messaging applications.
- 19. The system of claim 16, wherein the first and second respective user accounts are associated with a first messaging application of the one or more messaging applications, and wherein the one or more processors are further configured to: in response to detecting the selection of the UI element for creating the new message: in accordance with a determination that a third respective user accounts of the plurality of user accounts for receiving messages via the second messaging application is enabled on the electronic device, present a third selectable option that, when selected, causes the electronic device to initiate creation of a message to be sent using the third respective user account, wherein the first, second, and third selectable options are presented within one UI on the electronic device.
- 20. The system of claim 16, wherein the one or more processors are further configured to: after selection of a respective selectable option of the first or second selectable options, present a predetermined text message to send, at the display, based on one or more messages of a respective messaging application of the one or more messaging applications, the respective messaging application associated with the respective selectable option that is currently displayed within the aggregated messaging UI.