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## SOCIAL READING

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## **SOCIAL READING**

### **ABSTRACT**

A reading application may enable a first user of a computing device (e.g., a smartphone, mobile phone, a tablet computer, a laptop computer, a wearable device, etc.) to send an excerpt of text (e.g., a sentence, a paragraph, a snippet, etc.) of an electronic book (“e-book”) in the first user’s e-book library to other users’ computing devices. For example, based on user input from the first user, the reading application may select (e.g., by executing a machine learning algorithm) an excerpt of text from the e-book. The reading application may enable one or more actions to the selected excerpt of text, such as adding a comment by the first user, tagging (e.g., identifying, linking, mentioning, etc.) one or more users (e.g., a second user), sharing the selected excerpt of text with the tagged users (e.g., the second user), etc. Responsive to an input from the first user to share the selected excerpt of text with the tagged users, the reading application may electronically communicate the selected excerpt of text (and, if any, the comment by the first user) to the tagged users (e.g., in the form of an e-mail, a text message, etc.). The tagged users may respond or otherwise react to the electronic communication from the reading application. The reading application may then display the responses in connection with the selected excerpt of text (e.g., as a comment thread) on the first user’s computing device.

### **DESCRIPTION**

FIG. 1 below shows a first computing device 100 that exchanges electronic communications with a second computing device 120 in accordance with techniques of this disclosure. As shown in FIG. 1, first computing device 100 includes a presence-sensitive display 102 (“display 102”), one or more processors 104, one or more communication components 106

(“COMM components 106”), and one or more storage devices 108. As further shown in FIG. 1, second computing device 120 includes a presence-sensitive display 122 (“display 122”), one or more processors 124, one or more communication components 126 (“COMM components 126”), and one or more storage devices 128.

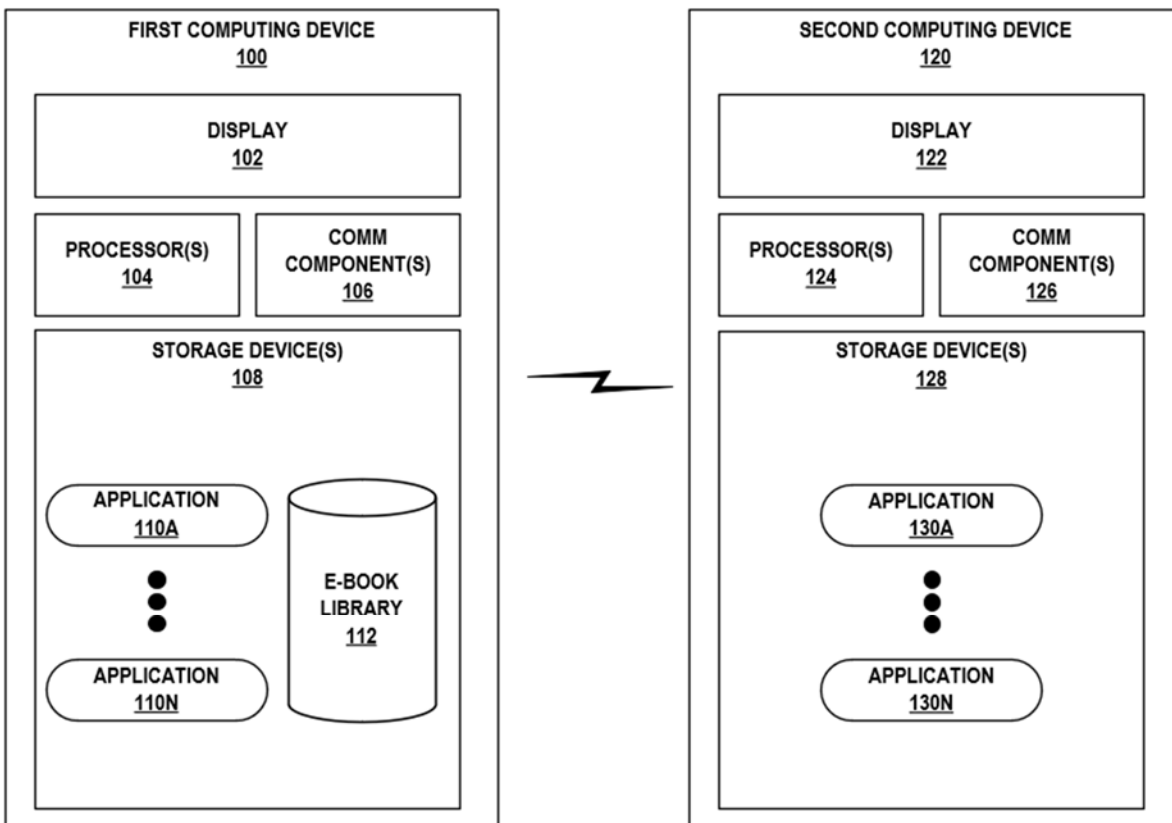


FIG. 1

First computing device 100 may be substantially similar to second computing device 120. As such, the description of one (including any component thereof) may apply equally to its counterpart except for any differences described herein. Examples of first computing device 100 include a mobile phone, a tablet computer, a laptop computer, a desktop computer, a set-top box, a television, a wearable device (e.g., a computerized watch, computerized eyewear, computerized gloves, etc.), a home automation device or system (e.g., an intelligent thermostat

or home assistant device), a gaming system, a media player, an e-book reader, a mobile television platform, an automobile navigation or infotainment system, or any other type of mobile, non-mobile, wearable, or non-wearable computing device.

Display 102 may function as an input device for first computing device 100 using a touchscreen, pressure sensitive screen, an acoustic pulse recognition touchscreen or another presence-sensitive screen technology. Display 102 may function as an output device for first computing device 100 using any one or more of display technologies (e.g., liquid crystal display, dot matrix display, light emitting diode (LED) display, organic light emitting diode (OLED) display, electronic ink display, or similar display technology.

Processors 104 may implement functionality and/or execute instructions associated with first computing device 100. Examples of processors 104 include one or more of an application specific integrated circuit (ASIC), a field programmable gate array (FPGA), an application processor, a display controller, an auxiliary processor, a central processing unit (CPU), a graphics processing unit (GPU), one or more sensor hubs, and any other hardware configured to function as a processor, a processing unit, or a processing device.

First computing device 100 may include COMM components 106. COMM components 106 may receive and transmit various types of information over a network, such as a cellular radio, a third-generation (3G) radio, a fourth-generation (4G) radio, a fifth-generation (5G) radio, a Bluetooth® radio (or any other personal area network (PAN) radio), a near-field communication (NFC) radio, a WiFi® radio (or any other wireless local area network (WLAN) radio), and/or the like.

Storage devices 108 may include one or more computer-readable storage media. For example, storage devices 108 may be configured for long-term, as well as short-term storage of

information, such as instructions, data, or other information used by first computing device 100. In some examples, storage devices 108 may include non-volatile storage elements. Examples of such non-volatile storage elements include magnetic hard disks, optical discs, solid state discs, and/or the like. In other examples, in place of, or in addition to the non-volatile storage elements, storage devices 108 may include one or more so-called “temporary” memory devices, meaning that a primary purpose of these devices may not be long-term data storage. For example, the devices may comprise volatile memory devices, meaning that the devices may not maintain stored contents when the devices are not receiving power. Examples of volatile memory devices include random-access memories (RAM), dynamic random-access memories (DRAM), static random-access memories (SRAM), etc.

Applications 110A-110N (collectively, “applications 110”) may include reading applications, e-mail applications, messaging applications, social media applications, calendar applications, gaming applications, digital assistant applications, mapping applications, word processing applications, keyboard applications, application extensions, or any other type of applications configured to execute at computing device 100. Applications 110 may be cloud-based applications that are accessible from computing device 100 but execute at a remote server in a cloud network environment. Applications 110 may generate graphical user interfaces (GUIs).

A first user of first computing device 100 may want to share, via a reading application (e.g., application 110A), an excerpt of text (e.g., a sentence, a paragraph, a snippet, etc.) of an electronic book (“e-book”) that is in an e-book library 112 (e.g., a data repository) at first computing device 100 with a second user of second computing device 120. However, the reading application may not be installed at second computing device 120 or the second user may not own

the e-book (e.g., the e-book is not in an e-book library at second computing device 120) such that the first user cannot conveniently share, via the reading application installed at first computing device 100, the excerpt of text with the second user. As a result, it may be difficult for the first and the second user to engage in social reading (e.g., the activity of sharing a reading experience with others), which may hinder their ability to enjoy the e-book.

In accordance with techniques of disclosure, first computing device 100 and second computing device 120 (and, in some cases, additional computing devices, e.g., a third computing device, a fourth computing device, etc.) may enable users to engage in social reading by facilitating the transmission of and responses to excerpts of text of an e-book. For example, based on user input from a first user of the first computing device 100, a reading application may select an excerpt of text from the e-book. Responsive to an input from the first user to share the selected excerpt of text with a second user of second computing device 120, the reading application may electronically communicate the selected excerpt of text to the second user (e.g., in the form of an e-mail, a text message, etc.). The second user may respond or otherwise react to the electronic communication from the reading application (e.g., via the same method used by the reading application to send the electronic communication). The reading application may then display the responses in connection with the selected excerpt of text (e.g., as a comment thread) via display 102 of first computing device 100.

As noted above, a reading application may select an excerpt of text from an e-book in e-book library 112 based on user input. For instance, FIG. 2A below shows a first computing device 200 (which is substantially similar to first computing device 100 of FIG. 1) receiving a user input 234 from a first user. User input 234 may be a touch input, a mouse input, or any other appropriate input. Based on user input 234, the reading application may select an excerpt 236.

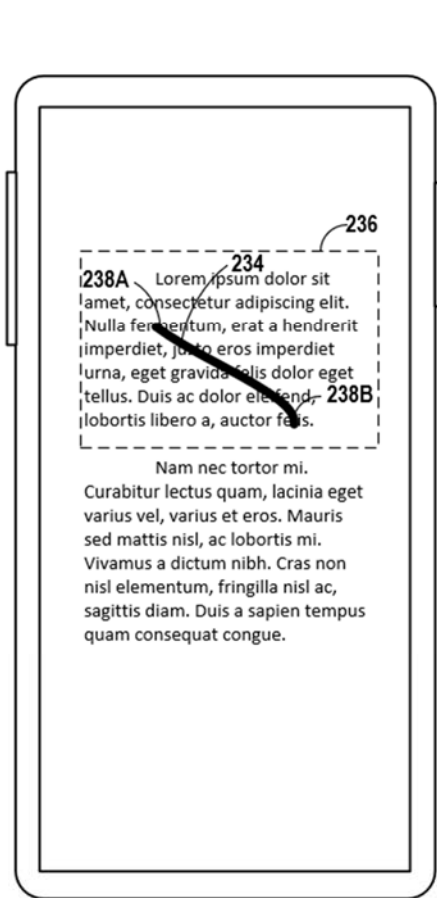


FIG. 2A

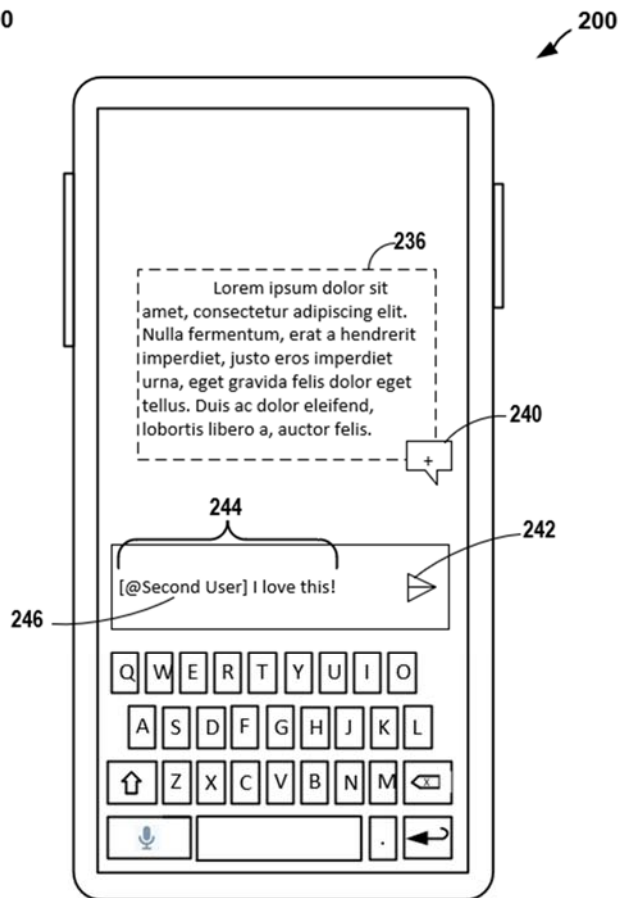


FIG. 2B

Excerpt 236 may vary in length. For example, excerpt 236 may include one or more words, one or more sentences, one or more paragraphs, etc. In some examples, the reading application may select excerpt 236 based on a start point 238A and an end point 238B of user input 234. For example, to avoid sending an excerpt with incomplete sentences, the reading application may select excerpt 236 to include all text between start point 238A and end point 238B as well as any part of a sentence preceding start point 238A (e.g., “Nulla fer” as shown in FIG. 2A) and any part of a sentence following end point 238B (e.g., “is.” as shown in FIG. 2A). In another example, to avoid sending an excerpt with incomplete paragraphs, the reading application may select excerpt 236 to include all text between start point 238A and end point 238B as well as any part of a paragraph preceding start point 238A (e.g., “Lorem ipsum dolor sit

amet, consectetur adipiscing elit. Nulla fer” as shown in FIG. 2A) and any part of a paragraph following end point 238B (e.g., “is.” as shown in FIG. 2A). In some instances, the reading application may execute a machine learning algorithm (e.g., a natural language processing unit) to select excerpt 236 based on user input 234.

The reading application may enable one or more actions to excerpt 236. For example, as shown in FIG. 2B above, the reading application may provide an add comment button 240 and a share button 242. The first user may select add comment button 240 to input a comment 244. In some examples, comment 244 may include a tag 246 for one or more users (e.g., a second user). The first user may select share button 242 to share excerpt 236 with tagged users (e.g., the second user), etc. Responsive to the first user selecting share button 242, the reading application may electronically communicate excerpt 236 and comment 244 to the tagged users (e.g., in the form of an e-mail, a text message, etc.).

FIG. 3A below shows an electronic communication 348 sent to a second computing device 320 (which is substantially similar to second computing device 120 of FIG. 1) by the reading application installed at the first computing device (e.g., first computing device 200). Electronic communication 348 may be an e-mail, a text message, etc. Tagged users may respond or otherwise react to electronic communication 348 from the reading application (e.g., via the same method used by the reading application to send the electronic communication). For example, the second user of second computing device 320 may respond to electronic communication 348 by adding and sending a comment 350. As shown in FIG. 3B, the reading application installed at a first computing device 300 (which is substantially similar to first computing device 200 of FIG. 2) may display the responses (e.g., comment 350) in connection



with an excerpt 336. For example, the reading application may display the first user's comment 244 and the second user's comment 350 as a comment thread.

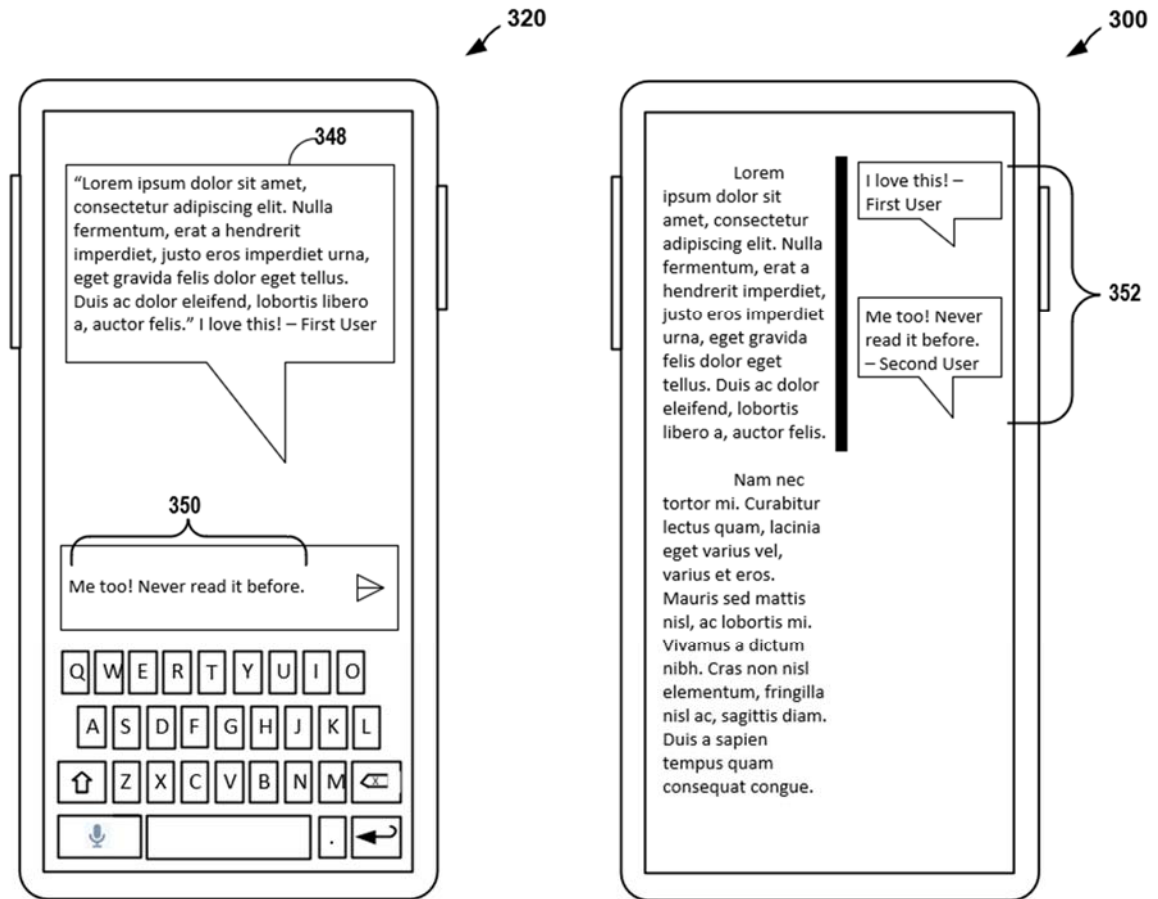


FIG. 3A

FIG. 3B

The techniques of this disclosure include one or more advantages. For example, the techniques may facilitate social reading among various users, even if some of the users do not own the e-book, which can enhance the reading experience. In addition, by enabling users to conveniently share excerpts of text from an e-book, the techniques may expose users who do not own the e-book to potentially interesting content, which may lead to them purchasing and enjoying the e-book themselves.

It is noted that the techniques described herein may be combined with any other suitable techniques or combination of techniques. As one example, the techniques of this disclosure may be combined with the techniques described in U.S. Patent Application Publication No. 2019/0235732A1. In an additional example, the techniques of this disclosure may be combined with the techniques described in U.S. Patent Application Publication No. 2014/0074648A1. In yet another example, the techniques of this disclosure may be combined with the techniques described in U.S. Application Publication No. 2016/0179348A1.