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Contextual Information Triggered by Deep Click

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Contextual Information Triggered by Deep Click

ABSTRACT

Users often open new browser tabs or applications to look up something, e.g., additional information on a word found in the present tab. Such lookup of contextual information requires the user to frequently jump out of and return to the present tab or application, which is a tedious and distracting process. This disclosure describes techniques that provide user-interface cards that include contextual information based on the cursor position at the instant of a deep click of a haptic trackpad or touchscreen.

KEYWORDS

- Deep click
- Haptic trackpad
- Haptic touchpad
- Contextual information
- Web browser

BACKGROUND

Users often open new browser tabs to look up something, e.g., additional information on a word found in the present tab or application. Such lookup of contextual information requires the user to frequently jump out of and return to the present tab or application, which is a tedious and distracting process. In addition, it can become difficult for the user to organize information, especially if the user has a large number of open tabs or applications to be sifted through.

On a device with a haptic trackpad or touchscreen, the pressing of the user's finger is detected by a force sensor and a haptic engine simulates a sensation of a real click. A haptic

trackpad can also detect a deeper force after an initial click has been registered and release a secondary, deeper click.

DESCRIPTION

This disclosure describes techniques that leverage the secondary or deep click to provide user-interface cards that include contextual information based on the cursor position at the instant of the deep click.

Fig. 1: A contextual information card

Fig. 1 illustrates an example of a contextual information card, which can include, e.g., a title (102), a byline (104), a brief description (106), one or more images (108), one or more links to additional information (110), etc. When readily available, a quick answer is displayed separately from the context menu, for example, in the form shown in Fig. 1. The height of the quick-answer box can adapt to the length of the quick answer. The quick answer is easy to distinguish visually from the context menu. If a quick answer is not readily available, e.g., if the device is offline, experiences poor network connectivity, cannot find an exact match, etc., a look-up option or other fallback notification is displayed.

Some examples of contextual information cards follow.
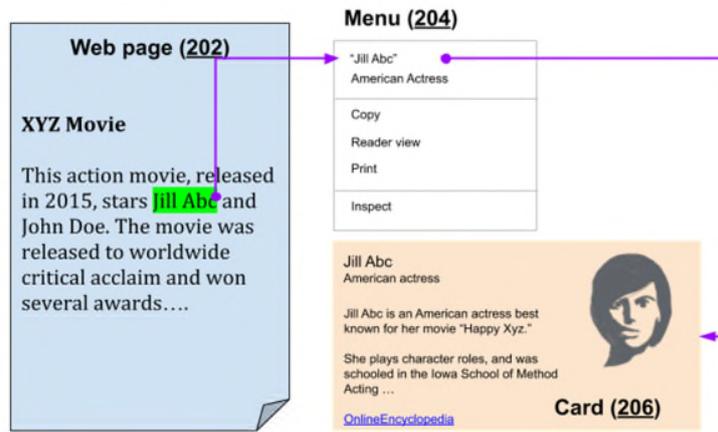
Entry points to quick answers

Fig. 2: Entry point to quick answers

As illustrated in Fig. 2, deep-clicking on a highlighted word or phrase on a web page (202) can bring up a menu (204), which, in addition to traditional menu items, also includes an entry point to additional information. Upon selection, a card (206) is displayed that includes additional information about the topic.

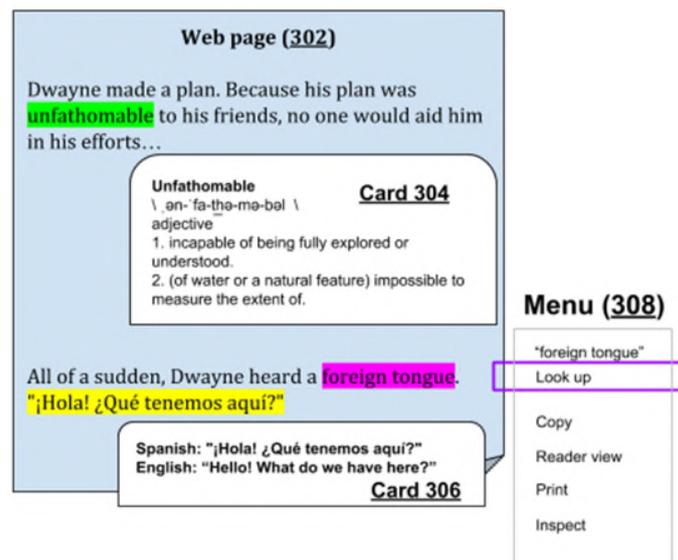*Contextual definition including language translation*

Fig. 3: Contextual definition, including language translation

As illustrated in Fig. 3, deep-clicking on a highlighted word or phrase in a web page (302) brings up a card (304) with a definition, e.g., sourced from a dictionary. Deep-clicking on a highlighted phrase can also bring up a translation (306). Fig. 3 also corresponds to operation when a quick answer is not readily available; in such a case, the context menu (308) includes a look-up option or other fallback notification.
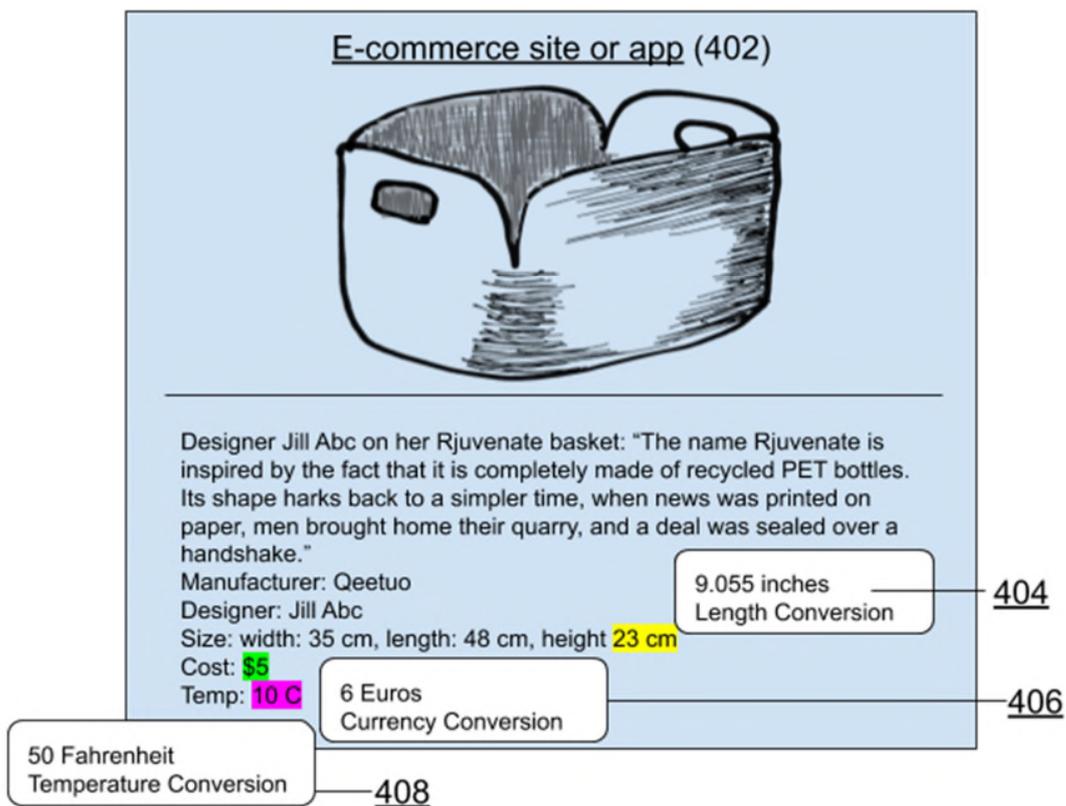
Unit conversion

Fig. 4: Contextual unit conversions

As illustrated in Fig. 4, deep-clicking on a highlighted word or numeric phrase on a website or application (402) can cause a contextual conversion of length units (404). In a similar manner, currency conversion (406), temperature conversion (408), etc., can be provided.
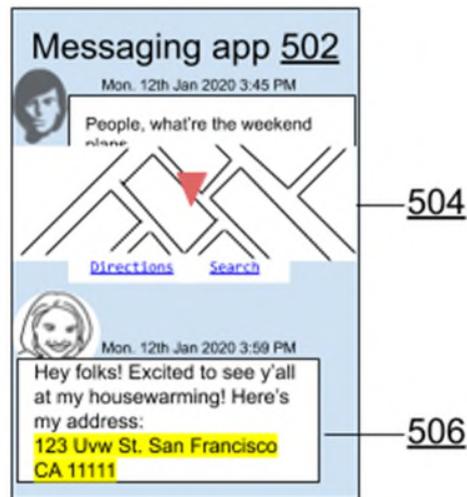
Addresses on maps

Fig. 5: Addresses on maps

As illustrated in Fig. 5, deep-clicking on a highlighted word or phrase (506) in an application (502) can cause the pop-up of an online map or directions (504).
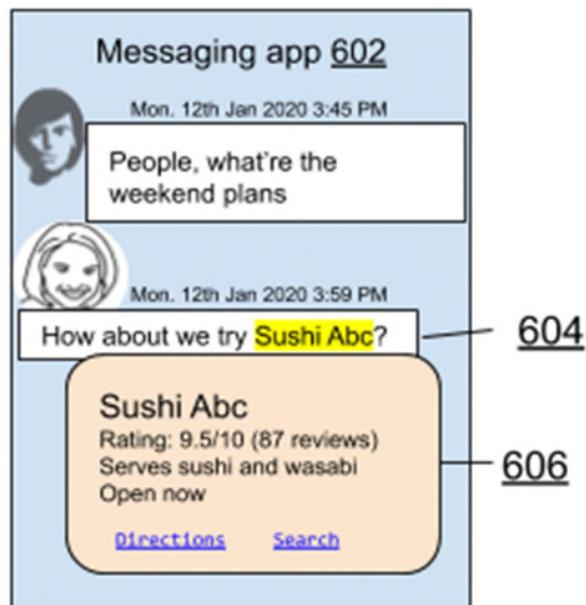
Local businesses

Fig. 6: Contextual information on local businesses

As illustrated in Fig. 6, deep-clicking on a highlighted word (604) or phrase in an application or website (602) can cause the pop-up of a card that includes additional information on a business (606) that is referred to in the highlighted phrase.
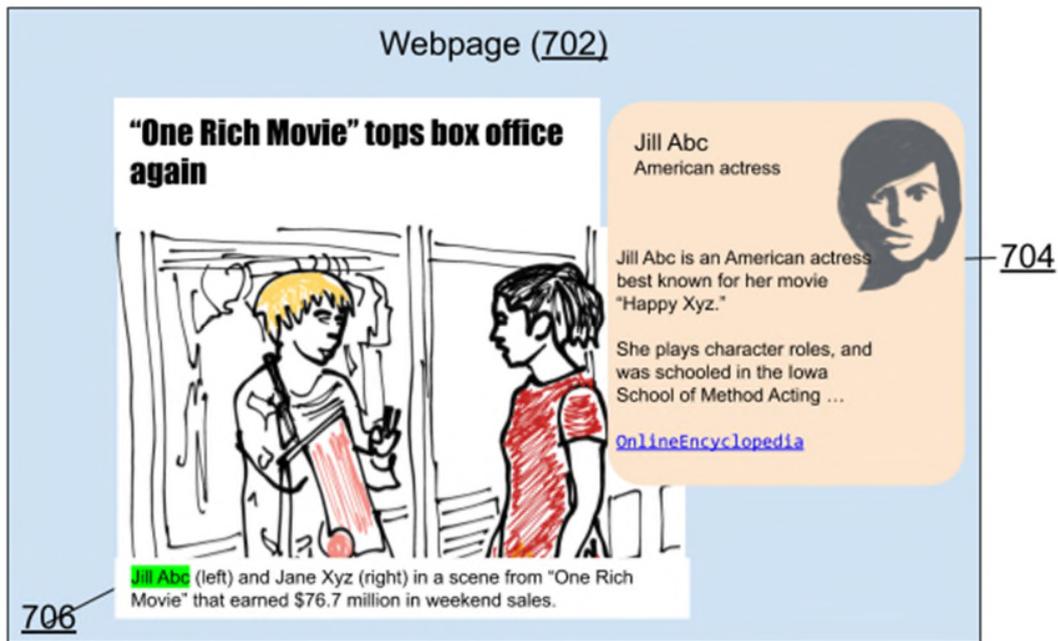
Famous personalities

Fig. 7: Contextual information on famous personalities

As illustrated in Fig. 7, deep-clicking on a highlighted word (706) or phrase on a webpage or application (702) that relates to a famous personality can cause the pop-up of a card that includes additional information on that personality (704).
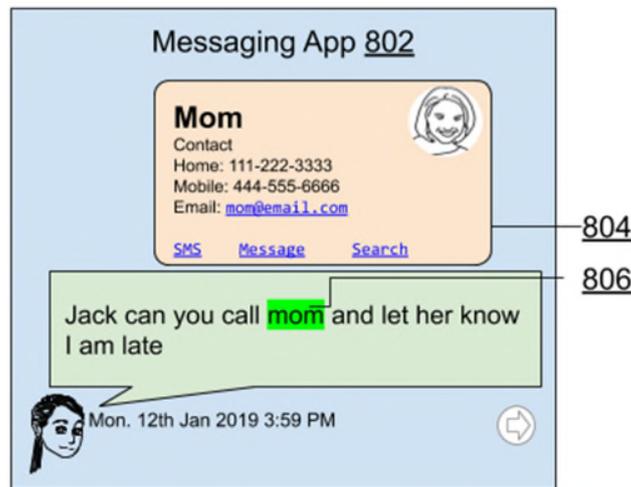
Contact information

Fig. 8: Contextual contact information

As illustrated in Fig. 8, deep-clicking on a highlighted word (806) or phrase of an application or website (802) can cause the pop-up of a card that includes contact information (804) of the person, if any, whose name appears in the highlighted phrase.
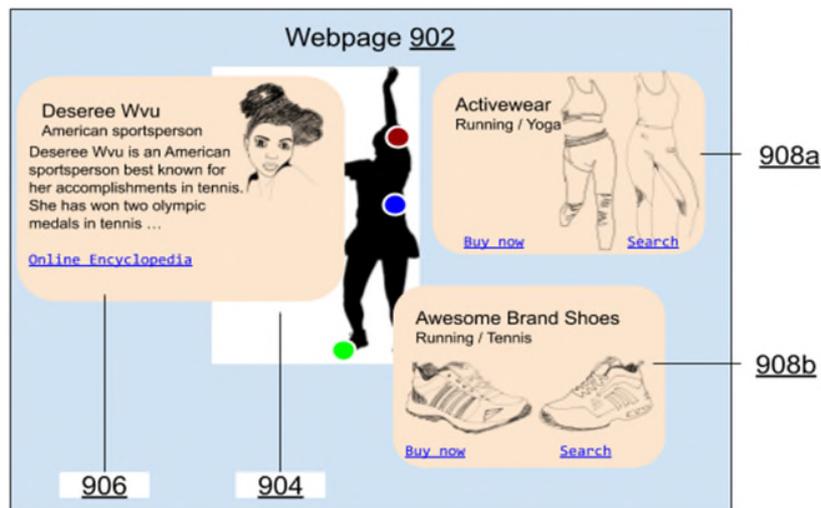
Contextual information based on images

Fig. 9: Contextual information based on images

As illustrated in Fig. 9, deep-clicking on an image (904) on a webpage or application (902) causes the pop-up of a card that includes information about the people (906) in the image,

and also information about objects in the image, e.g., the clothing, footwear, etc. of the people (908a-b) in the image.
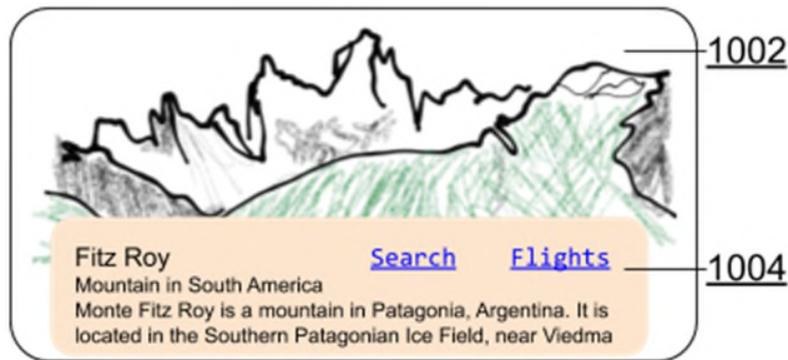

Fig. 10: Contextual information based on images

Fig. 10 is another example illustration of deep-clicking on an image (1002) that causes the pop-up of a card with information about the objects (1004), e.g., landscape, in the image.

CONCLUSION

Users often open new browser tabs or applications to look up something, e.g., additional information on a keyword found in the present tab. Such looking up of contextual information requires the user to frequently jump out of and return to the present tab or application, which is a tedious and distracting process. This disclosure describes techniques that provide user-interface cards that include contextual information based on the cursor position at the instant of a deep click of a haptic trackpad or touchscreen.

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