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Intuitive scrolling for feed-based applications

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Intuitive scrolling for feed-based applications

ABSTRACT

This disclosure describes techniques to perform adaptive scrolling based on input gestures provided by a user. Input provided by the user is categorized as scroll, small fling, or big fling. The categorization is based on device-independent velocity thresholds. When the input is classified as scroll, e.g., a slow swipe gesture, a feed interface that scrolls over items is provided. When the input is classified as a small fling, the item list snaps to the item that is adjacent to a current item in the view, determined based on the direction of the swipe. When the input is classified as a big fling, the item list scrolls and skips items based on the gesture and snaps to the item that is nearest to the location where the scroll concludes, as determined based on the input. Such adaptive behavior that combines natural scrolling with snapping behavior improves recall and allows users to focus on each content item and provides a flexible browsing mechanism.

KEYWORDS

- Content feed
- Vertical feed
- Scrolling
- Touch input
- Gesture input
- Swipe
- Gesture velocity
- Graphical user interface

BACKGROUND

Many applications provide scrolling interfaces that allow users to scroll through content items. For example, some applications provide a continuous feed of content items that can be scrolled. Some applications provide user interface that include individual cards for each content item, with the cards being organized in a scrollable stack which is moved one content item at a time. While the continuous feed is fast and easy to use, users may have lower recall of content compared to a scrollable stack. However, while a scrollable stack UI can provide greater engagement but can result in users viewing few content items.

DESCRIPTION

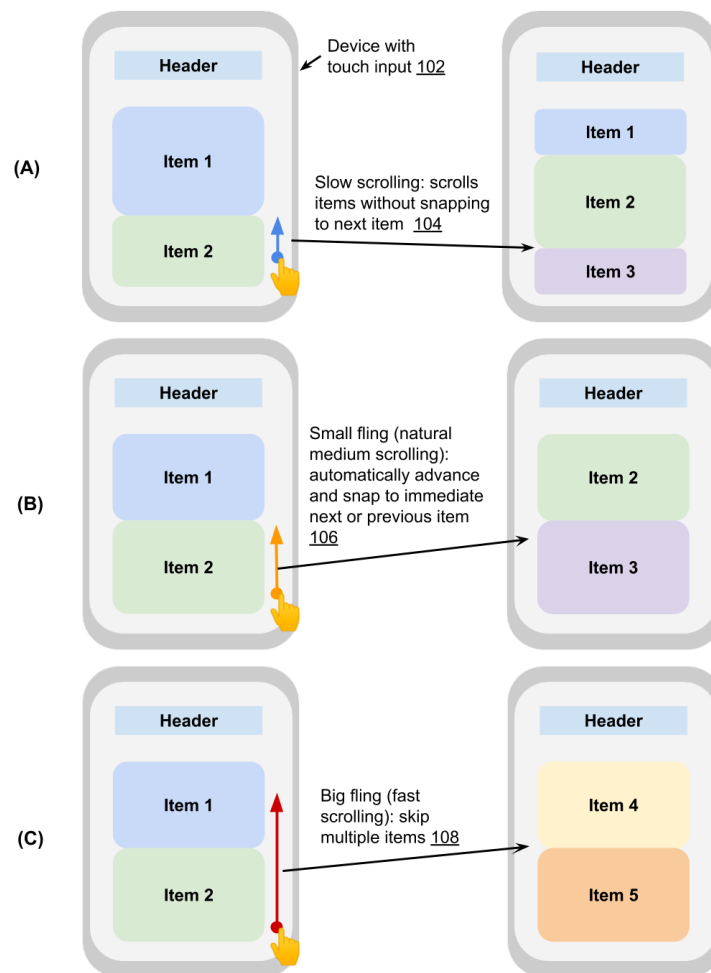


Fig. 1: Intuitive scrolling interface

Described herein are techniques to perform automatic categorization of input, e.g., touch input, gesture input, etc. provided by a user based on device-independent velocity thresholds. For example, input provided by the user is categorized as scroll, small fling, or big fling. Fig. 1 illustrates user input provided to a device, e.g., device with touch input (102).

When the input is classified as scroll (104), e.g., a slow swipe gesture, a feed interface that scrolls over items is provided. This interface is illustrated in Fig. 1(A). Such scrolling behavior allows users to read long posts, comments on threads, etc.

When the input is classified as a small fling (106), the item list snaps to the item that is adjacent to a current item in the view, determined based on the direction of the swipe. This interface is illustrated in Fig. 1(B). Such user interface updates enable users to proceed to a next content item without necessarily having to scroll to the end of a current content item.

When the input is classified as a big fling (108), the item list scrolls and skips items based on the gesture and snaps to the item that is nearest to the location where the scroll concludes, as determined based on the input. This interface is illustrated in Fig. 1(C). Such a user interface allows the user to skip past multiple content items and jump to a content item determined based on the user input. For example, such an interface can be particularly beneficial when scrolling through content items that are organized chronologically and the user need is to jump to a particular time point, or when the user is scrolling previously viewed content items and has an intuitive understanding of the location of the desired content item in the feed of content items.

Such adaptive behavior that combines natural scrolling with snapping behavior improves recall and allows users to focus on each content item and provides a flexible browsing mechanism. While Fig. 1 shows a vertical scrolling feed of content items, the described techniques can also be utilized for horizontal feeds, or other types of scrolling interfaces.

CONCLUSION

This disclosure describes techniques to perform adaptive scrolling based on input gestures provided by a user. Input provided by the user is categorized as scroll, small fling, or big fling. The categorization is based on device-independent velocity thresholds. When the input is classified as scroll, e.g., a slow swipe gesture, a feed interface that scrolls over items is provided. When the input is classified as a small fling, the item list snaps to the item that is adjacent to a current item in the view, determined based on the direction of the swipe. When the input is classified as a big fling, the item list scrolls and skips items based on the gesture and snaps to the item that is nearest to the location where the scroll concludes, as determined based on the input. Such adaptive behavior that combines natural scrolling with snapping behavior improves recall and allows users to focus on each content item and provides a flexible browsing mechanism.