Changing watch style and functionality to match fashion products

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Recommended Citation
Tait, Matthew, "Changing watch style and functionality to match fashion products", Technical Disclosure Commons, (December 13, 2017)
http://www.tdcommons.org/dpubs_series/985
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ABSTRACT

The disclosed techniques enable automatic configuration of a wearable computing device, e.g., a smartwatch, to match style and/or functionality to fashion product or accessories. With user permission, the smartwatch obtains information about the fashion product via short-range communication technology, e.g., by reading a near field communication (NFC) tag in fashion products, e.g., jackets, handbags, shoes, etc. Information from the tag is used to identify characteristics of the fashion product such as function, brand, color, style, etc. The smartwatch is automatically configured to update style and/or function to match the identified characteristics.

KEYWORDS

- smartwatch
- wearable device
- wearable fashion
- NFC
- Fashion accessory
- QR code

BACKGROUND

Fashion brand customers have a sense of loyalty to brands and like their clothing from a particular brand and accessories, e.g., including a wearable device such as a watch, to match aspects of function and style of the brand, such as color. Currently, when consumers change their clothing, they need to physically change the accessories to match.
DESCRIPTION

Using the techniques of this disclosure, a wearable computing device, e.g., a smartwatch, is configured to match a fashion item such as a fashion accessory or piece of clothing, e.g., handbags, jackets, shoes, etc. The style or function matching is performed using near field communication (NFC) on the smartwatch and a corresponding NFC tag included in the fashion item.

Based on characteristics identified using the near-field communication between the smartwatch and the NFC tag on the fashion item, the smartwatch automatically configures aspects of user interface, e.g., style, watch face, theme colors, etc. and functionality, e.g., widgets, apps, assigned use of hardware buttons, etc. to match the fashion item.

For example, to configure the smartwatch, a user brings the smartwatch physically close to a fashion item to allow the smartwatch to access and read information from the NFC tag included in the fashion item. Based on information obtained from the NFC tag, the user interface of the smartwatch is updated to match the color of the fashion item, e.g., a handbag that a user is carrying. In another scenario, the information obtained indicates the user is wearing a pair of running shoes. Based on this information, an exercise widget by the same maker of the running shoes is automatically installed on the smartwatch. These actions are completed without the customer needing to physically change the watch to match those items, e.g., using a different watch, or changing the band or strap, etc. or download and install any software, e.g., a widget.
Fig. 1(a): smartwatch face in a standard style

Fig. 1(b): smartwatch face matching in style and functionality to a fashion accessory
Fig. 1(a) illustrates an example traditional smartwatch face. A user wears a smartwatch (100) on arm (104). The expanded view of the face of the smartwatch (116) shows icons of applications that are available, e.g., a mail app (108), a phone app (110), and other information such as a weather indication (112), a current time (114), etc.

Fig. 1(b) illustrates an example of a smartwatch per the disclosed techniques. The user’s handbag (102) includes a NFC tag (118). The smartwatch includes an in-built NFC reader (120). When the user brings the smartwatch near the NFC tag in the handbag, the smartwatch is automatically configured to match the function and style of the handbag. In this example, the face of the smartwatch changes in color to match the color of the handbag. A new app icon for an app related to the handbag (122) is pinned to the smartwatch screen. For example, the new app can be an app for the handbag manufacturer.

The manufacturer of a fashion item, e.g., jacket, handbag, shoes, etc., can attach a NFC tag in either the item that a consumer has bought, or in a label attached to the item. The NFC tag allows for a device to read and access information stored in the tag, e.g., type of item, brand, SKU, style, color, functionality, etc. When the user brings their smartwatch near or touches it against the tag of the fashion item, the smartwatch can read and identify information about the item, and implement configuration changes to style and/or function to match that item.

The NFC tag can be placed on a fashion item in a way that the smartwatch automatically interacts with the NFC tag, e.g., without the user needing to take an extra affirmative physical action to bring the smartwatch near the NFC tag. For example, just putting on the jacket can activate the corresponding smartwatch configuration. In this example, user permission is obtained before implementing such automatic interaction. A NFC tag is attached to the sleeve of a jacket, so that when the user puts the jacket on, the smartwatch (e.g., on the user’s wrist) is
automatically near enough the NFC tag in the sleeve to read the tag. The smartwatch then automatically changes style and/or functionality to match the jacket, without any user input.

Configuring the smartwatch to match a fashion item includes automatically configuring style and function aspects of the smartwatch. For example, configuration can include one or more of the following: change the style of the smartwatch to match the look of the item; change the colors on the user interface to match or complement the colors of the item; add relevant apps corresponding to the fashion item; add widgets corresponding to the fashion item; and/or associate relevant apps with particular hardware buttons on the smartwatch based on the fashion item, etc.

Instead of or in addition to NFC, other suitable machine readable information tag can be used. For example, a quick response (QR) code can be attached to a label or tag attached to the fashion article. The user can scan the QR code, e.g., using a mobile phone that is paired to a smartwatch. The information from the QR code is obtained and relayed to the smartwatch to enable automatic configuration. Use of a QR code eliminates the cost of the NFC tag for the manufacturer of the fashion item and the necessity of having a NFC tag reader in the smartwatch.

Another example use of the described techniques is changing functionality and style of a smartwatch to match new watch bands. As a new watch band is attached, information in the NFC tag in the band is read and corresponding changes are applied to the smartwatch.

Further to the descriptions above, a user may be provided with controls allowing the user to make an election as to both if and when systems, programs or features described herein may enable collection of user information (e.g., information about a user’s social network, social actions or activities, profession, a user’s preferences, or a user’s current location), and if the user is sent content or communications from a server. In addition, certain data may be treated in one
or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user’s identity may be treated so that no personally identifiable information can be determined for the user, or a user’s geographic location may be generalized where location information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over what information is collected about the user, how that information is used, and what information is provided to the user.

CONCLUSION

The disclosed techniques enable automatic configuration of a wearable computing device, e.g., a smartwatch, to match style and/or functionality to fashion product or accessories. With user permission, the smartwatch obtains information about the fashion product via short-range communication technology, e.g., by reading a near field communication (NFC) tag in fashion products, e.g., jackets, handbags, shoes, etc. Information from the tag is used to identify characteristics of the fashion product such as function, brand, color, style, etc. The smartwatch is automatically configured to update style and/or function to match the identified characteristics.