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Contextually aware suggestions for online information resources

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Contextually aware suggestions for online information resources

ABSTRACT

Novice users often find it challenging to realize the full potential of available information resources. One approach to help such users is to present them with a categorized directory of ranked recommendations for useful information resources, such as apps or websites. However, such a directory may not help discover new resources that can be particularly relevant at specific times based on the user's current location. This disclosure describes techniques to provide a personalized catalog of suggestions for information resources relevant to a user's current context, which is obtained with user permission. A personalized catalog of contextual suggestions can help novices broaden their awareness and understanding of available online resources and expose them to a range of tasks that can be accomplished online. In addition to standalone operation, the catalog functionality can be embedded in various commonly used systems and can serve as a mechanism for entities to provide relevant information to individuals in their vicinity.

KEYWORDS

- User expertise
- Novice user
- Personalized catalog
- Personalized directory
- App catalog
- Location based services
- User context
- Ephemeral event

BACKGROUND

Novice users often face a steep learning curve to discover relevant information resources, such as websites and apps. As a result, such users often find it challenging to realize the full potential of available information resources. One approach to help such users is to present them with a categorized directory of ranked recommendations for useful information resources. Such a directory can be organized to provide categorized listings that enable drilling down into various resource types, such as “Entertainment,” “News,” “Finance,” “Productivity,” etc. Such a categorized catalog of top suggestions is useful for making users aware of the corresponding resources of potential interest within these categories in general. However, such a directory may not help discover new resources that can be particularly relevant at specific times based on the user’s current location.

DESCRIPTION

This disclosure describes techniques to provide a personalized catalog of suggestions for information resources relevant to a user’s current context, which is obtained with user permission. The content within the catalog is generated based on crawling and indexing online resources.

With user permission, the contextual parameters can include information such as the user’s current location, current day and time, relevant events, user’s interests, etc. If the user permits, the contextual parameters are used to personalize the resources suggested to the user. For example, based on the user’s location, when the user arrives at a specific location, such as a transit stop, a monument, a building, a mall, etc., the user can be made aware of sites and apps of nearby places and businesses. Such suggestions can enhance the user experience of visiting that location. For instance, such resources can enable the user to check the hours during which nearby

businesses are open or to view information related to a place or event such as a guided tour of a monument or the running order for an event.

The resources surfaced at a given location can vary depending on the day, date, and/or the time of day. For example, the services shown for a location can be different in the morning compared to ones shown at the same location in the evening. Similarly, apps and websites shown at a location on a weekday can be different from those shown on a weekend. Further, if a location is at or near a specific event, such as a concert or a festival, resources relevant to the event recommended can be recommended.

If the user permits, the suggested resources can be personalized based on the user's interests. For example, if the user previously expressed a lack of interest in sports, resources connected to sports are omitted from the recommended resources.

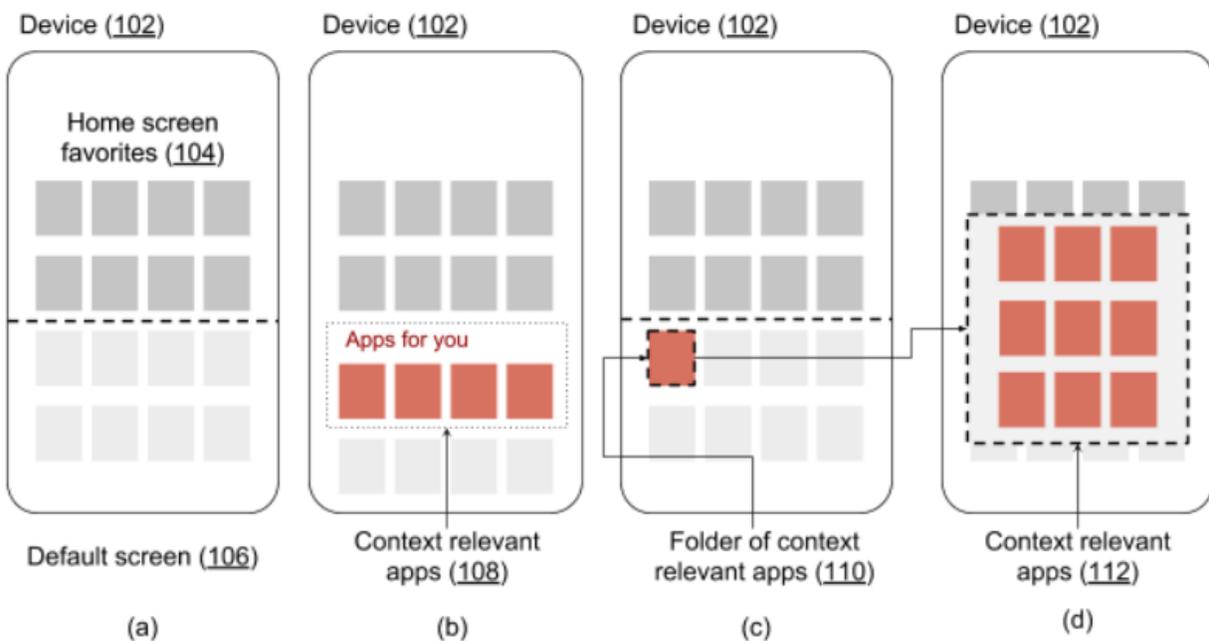


Fig. 1

Fig. 1 shows an example user interface to recommend resources using the described techniques. As illustrated in Fig. 1(a), a device (102) of the user has a default home screen (106)

that lists the apps installed on the phone. The default screen may sort the apps such that the apps shown at the top are those based on the user's country or marked by the user as favorites (104). When the user permits determination of context, a set of applications (108) relevant to the user's current context, such as location, is added to the device home screen, as illustrated in Fig. 1(b). The set of added apps can include additional information and interface components, such a title (e.g., "Apps for you") to indicate that the apps are part of a group of contextually relevant content. Alternatively, the contextually relevant apps can be displayed as a folder (110) added to the home screen, as illustrated in Fig. 1(c). Accessing the folder reveals the contextually relevant apps (112) within it, as illustrated in Fig. 1(d).

A personalized catalog of contextual suggestions of relevant information resources can help novice users broaden their awareness and understanding of available online resources and expose them to a range of tasks that can be accomplished online. In addition to standalone operation, the catalog functionality can be embedded in commonly used applications, such as search engines, application stores, web browsers, map applications, etc. The described techniques can also serve as a mechanism for entities to provide relevant information to individuals in their vicinity.

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

This disclosure describes techniques to provide a personalized catalog of suggestions for information resources relevant to a user's current context, which is obtained with user permission. A personalized catalog of contextual suggestions can help novices broaden their awareness and understanding of available online resources and expose them to a range of tasks that can be accomplished online. In addition to standalone operation, the catalog functionality can be embedded in various commonly used systems and can serve as a mechanism for entities to provide relevant information to individuals in their vicinity.