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Automatic event scheduling based on weather conditions

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ABSTRACT

Users prefer to engage in certain activities, e.g., swimming, surfing, etc. when the weather conditions are suitable. This disclosure describes techniques to automatically schedule events on a calendar based on activity information and weather information. For time periods when a user is available, weather information is compared with known user preferences and activity-specific weather requirements to schedule activities requested by the user. The techniques can be implemented as part of a calendar application and/or a virtual assistant application.

KEYWORDS

- Calendar

- Automatic scheduling

- Weather

- Virtual assistant

BACKGROUND

Some calendar applications include features that enable users to automatically schedule events. Such functionality is also provided by a virtual assistant application. For example, a user can instruct a virtual assistant to add an event to their calendar for the following week, "add coffee with Jason to my calendar next Thursday at 4 pm." The virtual assistant, based on specific permission from the user, checks the calendar of the user and adds the event to the user's calendar.

In another example, the user can request that an event or activity be added to the calendar by specifying a frequency for the event. For example, when a user requests, "add swimming to

my calendar three times a week." In response, the calendar application automatically adds three

events to the user's calendar scheduled at times when the user is free each week.

DESCRIPTION

Current automatic scheduling techniques do not take into account weather information

when scheduling activities. For example, some activities are best suited for specific weather

conditions. In such cases, the user needs to manually override the calendar entry, e.g., move the

automatically scheduled event to a time when the weather is suitable, or manually schedule the

event based on weather forecasts.

This disclosure describes techniques to automatically schedule events taking into account

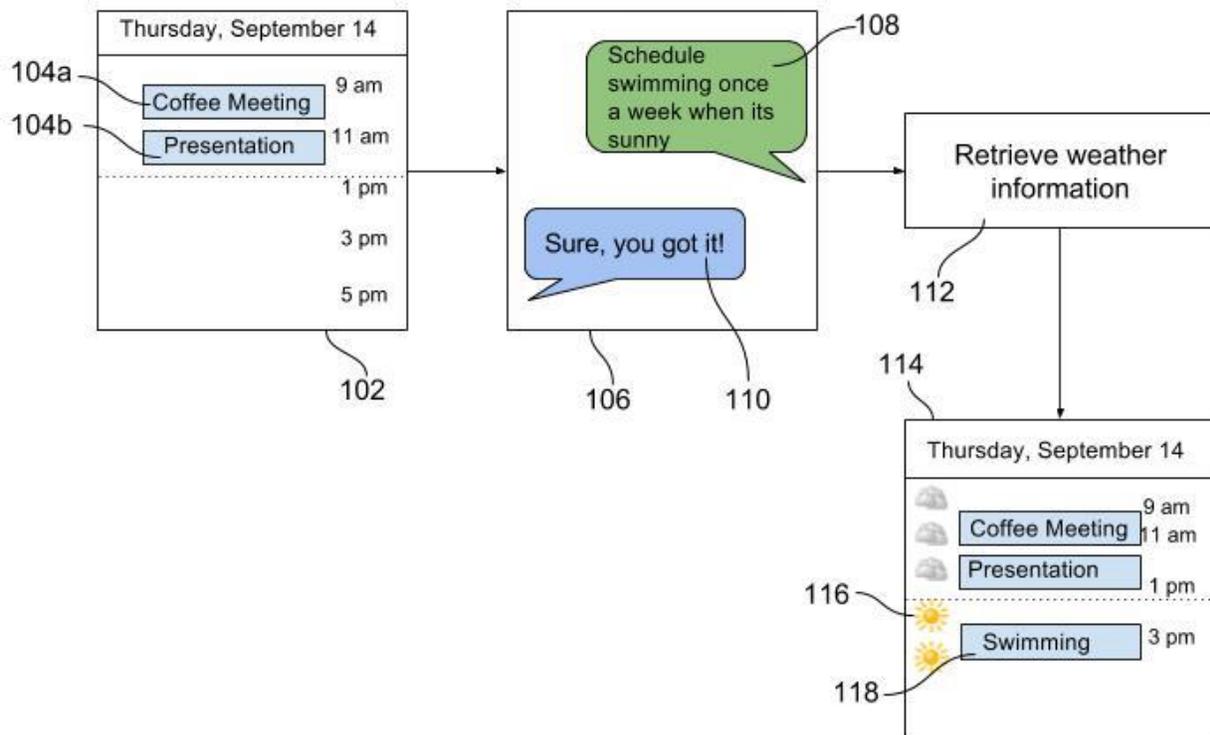user specified parameters and available weather information.

Fig. 1: Automatically scheduling events based on weather conditions

Figure 1 illustrates an example of automatically scheduling events taking into account available weather information. A user interface for a calendar application is illustrated (102). The calendar includes events "Coffee Meeting" (104a) and "Presentation" (104b).

The user provides input to schedule a new event, e.g., by invoking a virtual assistant via an interface (106) with the command "schedule swimming once a week when its sunny" (108). The command is provided using voice and/or text input. The virtual assistant (or calendar application) provides a response "Sure, you got it!" (110) acknowledging that the event is being scheduled on the user's calendar.

Further, the virtual assistant (or calendar application) determines that the user prefers swimming when the weather is sunny. For example, such determination can be made based on explicit user input, or, when the user permits, based on user data. With user permission to utilize user location, weather information for the location is retrieved (112).

Based on the retrieved weather information, "swimming" is scheduled on the calendar (114). For example, if the weather information indicates that it is likely to be sunny at the user's location at 3 pm, when the user has no other activity scheduled, the event is scheduled at 3 pm (118). Optionally, an icon or other representation of the weather information (116) is included in the user interface of the calendar application.

Different preferences of different users are taken into account when scheduling activities. For example, another user may indicate a preference for cloudy weather for swimming, e.g., to avoid health hazards such as sunburn, and correspondingly, swimming is scheduled for this user during periods of cloudy weather. Further, certain activities are scheduled when weather conditions suited for the activity are available, e.g., waves shaped a certain way for surfing, air flow patterns for aerial activities, etc.

Weather information such as water temperature, surf data, etc. is obtained from local weather data or other canonical sources of weather conditions. The weather information is analyzed to identify time periods of suitable weather that overlap with periods of availability determined based on the user's calendar. In some implementations, alerts are provided to users when weather conditions are suitable for activities that they have indicated, e.g., "Surf's up! Would you like to me schedule some time to go surfing later today?"

The techniques are implemented upon specific user permission. User calendar data, user location, and other user data are used to schedule events on the user's calendar only if the user provides permission for such use of data. The user is provided with options to restrict access to user data, or to turn off automatic scheduling.

In situations in which certain implementations discussed herein may collect or use personal information about users (e.g., user data, information about a user's social network, user's location and time at the location, user's biometric information, user's activities and demographic information), users are provided with one or more opportunities to control whether information is collected, whether the personal information is stored, whether the personal information is used, and how the information is collected about the user, stored and used. That is, the systems and methods discussed herein collect, store and/or use user personal information specifically upon receiving explicit authorization from the relevant users to do so. For example, a user is provided with control over whether programs or features collect user information about that particular user or other users relevant to the program or feature. Each user for which personal information is to be collected is presented with one or more options to allow control over the information collection relevant to that user, to provide permission or authorization as to whether the information is collected and as to which portions of the information are to be

collected. For example, users can be provided with one or more such control options over a communication network. 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. As one example, a user's identity may be treated so that no personally identifiable information can be determined. As another example, a user's geographic location may be generalized to a larger region so that the user's particular location cannot be determined.

CONCLUSION

This disclosure describes techniques to automatically schedule events for a user based on activity information and weather information. For time periods when the user is available, weather information is compared with known user preferences and activity-specific weather requirements to schedule activities requested by the user. The techniques can be implemented as part of a calendar application and/or a virtual assistant application.