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# Goal-based automatic scheduling of joint activities

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#### Goal-based automatic scheduling of joint activities

#### ABSTRACT

Users often skip activities that they have scheduled, e.g., workouts, training goals, etc. due to boredom or laziness. One mechanism to encourage users to complete activities is by adding a partner for the activity, e.g., a running partner, a gym buddy, etc. This disclosure describes techniques that enable a user to select and invite a partner when scheduling an activity. The activity can be scheduled based on user preferences, including availability, as indicated by the user's calendar. Scheduling can be performed in an intelligent manner, e.g., by taking into account each user's availability, each user's activity goals, a virtual coach that sets goals for the user, etc. The techniques are implemented with user permission to access user data such as calendar, activity goals, workout history, user's contacts, location, etc. for the purpose of scheduling an activity together with a contact. Activity invitations are provided to the selected contacts who may accept, decline, or reschedule the activity.

#### **KEYWORDS**

- fitness
- smart schedule
- goal achievement
- workout goal
- gym buddy
- conversational assistant
- virtual assistant

#### BACKGROUND

Users often skip activities that they have scheduled, e.g., workouts, training goals, etc. due to boredom or laziness. If a user has workout goals that they skip, an on-device virtual coach, e.g., as provided by a virtual assistant or a fitness app, can record such events and determine that the user is not meeting their goals.

Users are more likely to accomplish their goals when they have someone to work with or when someone else's success depends on them. In general, this not only makes the activity less boring, but also makes it more difficult for the user to succumb to last-minute laziness or lethargy if they have committed to an activity with another person.

#### **DESCRIPTION**

One mechanism to encourage users to complete activities is by enabling them to add a partner for the activity, e.g., a running partner, a gym buddy, etc. This disclosure describes techniques that enable a user to select and invite a partner when scheduling an activity. The activity can be scheduled based on user preferences, including availability, as indicated by the user's calendar. Scheduling can be performed in an intelligent manner, e.g., by taking into account each user's availability, each user's activity goals, a virtual coach that sets goals for the user, etc.

Fig. 1 illustrates an example of smart scheduling for a run, per techniques described herein. Smart scheduling can be performed automatically, e.g., when the user sets up a goal. In certain cases, the joint scheduling of events can be restricted to trigger as a suggestion only if it is determined that the user has been unable to accomplish a preset goal. Such determination can be made based on accessing physical activity data as permitted by the user.

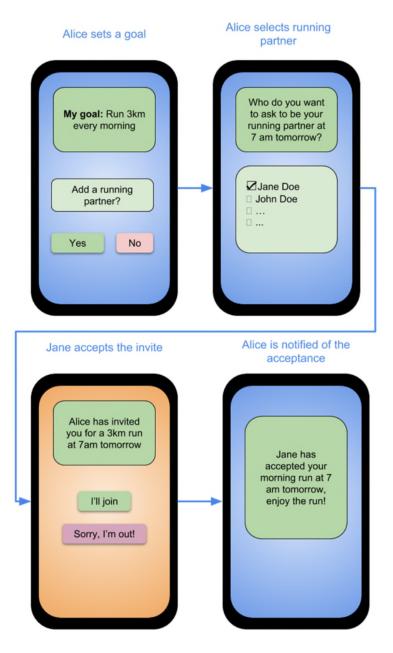


Fig. 1: Smart scheduling of joint activities

As illustrated in Fig. 1, a user Alice defines a goal ("run 3km every morning"). The user interface for the application that is used to set up the goal, e.g., a virtual coach, workout app, or a virtual assistant application, provides a suggestion to invite another user ("add a running partner?"). If Alice selects the option to add a partner, the application provides a list of the user's

contacts and enables Alice to select a particular contact ("Jane Doe") as the running partner. While Fig. 1 illustrates a dialog-box based user interface, the suggestions can be provided and user responses can be received via a conversational user interface, e.g., a chat between a conversational assistant and the user Alice.

When the user selects a partner, an invitation for the run is sent to the selected partner, Jane ("Alice has invited you for a 3km run at 7 am tomorrow"). The partner can accept or refuse the invitation, or suggest a different time. The user is notified of the partner's acceptance and the run event is added to the calendars for both users. If two users that share an activity have different goals, e.g., run 3 times a week and run 4 times a week, joint activities are scheduled for the overlapping goals, e.g., three joint running activities, and a separate activity is scheduled for the non-overlapping goals.

While Fig. 1 illustrates a single partner, a user can select any number of partners. If the user and the selected partners permit access to their calendars, the selected activity is scheduled at a time when all the participants are likely available. Further, user preferences such as "prefer to run early in the morning," "prefer workouts less than 1 hour," etc. are taken into account suggesting partners and/or when scheduling the event.

The described techniques are implemented with user permission to access user data such as calendar, activity goals, workout history, user's contacts, location, etc. for the purpose of scheduling an activity together with a contact. Activity invitations are provided to the selected contacts who may accept, decline, or reschedule the activity. The techniques can be implemented as part of a virtual coach, a virtual assistant application, a workout or fitness application, a device operating system of a mobile or wearable device such as a fitness tracker, etc. A nudge to add a partner for an activity can be provided when the user skips a scheduled session or misses a goal. Reminder notifications for shared goals can be provided to users that have a joint activity scheduled. Users can also choose to send each other messages, shared goals, activity summaries over time, etc.

While Fig. 1 illustrates the smart scheduling technique in the context of an exercise goal, the described techniques can be utilized to schedule other types of activities based on the goals set by the user. For example, the techniques can enable the user to set up joint events to accomplish a goal of learning a new skill, for social goals such as watching a movie with family members, etc.

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 that enable a user to select and invite a partner when scheduling an activity. The activity can be scheduled based on user preferences, including availability, as indicated by the user's calendar. Scheduling can be performed in an intelligent

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manner, e.g., by taking into account each user's availability, each user's activity goals, a virtual coach that sets goals for the user, etc. The techniques are implemented with user permission to access user data such as calendar, activity goals, user's contacts, location, etc. for the purpose of scheduling an activity together with a contact. Activity invitations are provided to the selected contacts who may accept, decline, or reschedule the activity.