Understanding Sports-HCI by Going Jogging at CHI

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Abstract
More and more technologies are emerging that aim to support sports activities, for example there are jogging apps, cycling computers and quadcopters for sportspeople to videorecord their actions. These new technologies appear to become more and more popular, yet interaction design knowledge how to support the associated exertion experiences is still limited. In order to bring practitioners and academics interested in sports-HCI together and examine the topic "in the wild", we propose to go outside and jog around the CHI venue while using and discussing some of these new technologies. The goal is to investigate and shape the future of the field of sports-HCI.

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Sport; exercise; exertion

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H.5.2. [Information Interfaces and Presentation]: User Interfaces.

Introduction
More and more technologies are emerging that aim to support sports activities. For example there are a plethora of jogging apps available for mobile phones, wearables such as heart rate monitors and bicycle-specific interactive devices to support cyclists [11], and

quadcopters that automatically follow sportspeople to videorecord their actions [9]. Game console accessories such as Xbox Kinect and Nintendo Wii also enable sports-like interactions merged with gaming technologies.

These new technologies support not just professional athletes anymore, but also casual sportspeople. The falling prices make them more accessible to the everyday athlete, and it seems they appreciate the use of these devices. Furthermore, more and more systems emerge that do not only focus on enhancing athletic performance, but rather aim to support the user experience as a whole, enabling also novel interactions; for example the Nike+ system connects distributed joggers across time and distance barriers.

In sum, sportspeople have more and more opportunities to use interactive technology to support their activities, yet our knowledge of how interaction design can support these sports experiences is limited. Prior work points to the fact that considering exertion when interacting with technology can have challenges [1] but also advantages [2, 4-6, 8], yet there is still a gap in a conceptual understanding of how interaction designers should engage with sports-HCI.

This SIG aims to contribute towards bridging this gap by bringing together practitioners and academics interested in the field of sports-HCI and engage them by going jogging as a group during the CHI timeslot. Participants are encouraged to bring any sports technologies that they are using or developing as part of their research. The organizers will also bring some of the technologies they are developing, for example our system TastyBeats [3] that mixes personalized sports drinks based on people's heart rate during the activity. In essence, our goal is to engage participants in the topic of sports-HCI by conducting a SIG that does exactly that: merging a sports activity such as jogging with HCI.

We have experience in conducting such a special interest group that engages participants with a jogging activity through our past engagements in the last two years at CHI. They were very successful with 24 and 14 (despite rain) participants going jogging. Participants applauded that they were able to briefly leave the conference venue yet engage in research discussions all awhile getting some fresh air. The participants also said that they felt the activity positively contributed to the discussions as they were getting new ideas by getting up and moving around, contrasting the CHI experience of sitting all day. They also said that they welcomed that the SIG offered a healthy way of engaging with CHI (contrasting the typical eating- and drinking-focused CHI experience). Participants also said that the outside environment enabled interactions with others that were richer than many of their other CHI interactions. Most importantly, participants noted that discussing sports and HCI was furthered by the fact that they were exercising at the same time, suiting the SIG.

Approach to conducting the SIG

The CfP calls for "creative approaches to conducting the SIG itself"; in response, we suggest to leave the confinements of the CHI conference venue and actively engage by doing a sports activity, here jogging, "in the wild" [10]. We will assemble in the designated room, outline the jogging route and introduce group leaders (based on target pace) while also arranging proposed

discussion topics. We will determine the route beforehand through Google Maps and online jogging route sharing apps like Runkeeper. We appreciate a student volunteer to look after the bags. The best time for this SIG is at the end of the day, so that attendees can go back to their hotels to have a shower after the jog.

This format worked well during the last two year's jogging sessions. Last year we had some rain (fig. 1), yet participants were still eager to go jogging; nevertheless, we acknowledge that weather is a risk for this SIG. However, average weather in Seoul at this time of the year is favorable for jogging.

We chose jogging as the SIG activity as many people already jog and not much sports gear is required to bring along (and some hotels offer sports shoes). By discussing sports-HCI *while* jogging, we hope to better engage with the interaction design opportunities that come with supporting exertion activities. This matches prior work that suggests that designers should move when designing for movement [2, 7, 8].

Target community

We target practitioners and academics interested in sports-HCI. We believe sports-HCI is different to general HCI as the athlete is in a different cognitive and most importantly bodily state when interacting with sports technologies. As such, our target community consists mostly of people interested in the interaction with technology while performing sports activities. This might include people interested in supporting exertion activities with game console accessories such as Nintendo Wii and Xbox Kinect.

Figure 1. Understanding sports-HCI by going jogging at CHI.

Assumed attendee background

Previously, we had participants with a lot and very little jogging experience. In order to accommodate them all, we will devise a short jogging route nearby the conference venue that moderately fit participants can run around at least once, with more ambitious participants running around multiple times. This way, people can interact with others when passing each other. Previously, we also offered the option to powerwalk, which was accepted by those who did not have sports gear with them.

Schedule of discussion topics

We will promote the SIG through the CHI-Announcement mailinglist, noting that participants should bring sports gear, any technologies that they are using or developing, as well as discussion topics they are interested in. Before the jog, when everyone assembles in the dedicated room, we will go through

the available technologies and introduce the discussion topics from the attendees and the organizers. Based on the amount of topics, the organizers will initiate the discussions while also managing any group interactions when they overtake each other on the circuit. In particular, faster participants will be encouraged to go the initial round(s) faster in order to join slower groups in subsequent rounds so they can join a range of discussions.

At the end of the jog, everyone is gathering back at the conference venue were we will capture major themes that emerged and distribute any data we collected, including pictures, with participants' consent. This cool-down period will include further discussions and plans for future events, concluding the SIG. Previously we have noted that the heightened state of arousal that results from the exertion activity can be conducive to social interaction [12], a phenomenon we aim to draw from in this SIG again. In result, this SIG will investigate and shape the future of the field of sports-HCI.

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