Sports on the Fringe: Running in Darkness

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Abstract

For this workshop on the theme of HCI and Sports I will bring to the table some recent thoughts and initial explorations that I call "running on the fringe". The idea is to look at more contrasting examples of a mainstream sport activity in this case casual running. Such practices could be orienteering, trail-running, marathon and parkour to name a few. After looking into and studying such activities the next step is to draw inspiration from the data and design artifacts that would support the more casual running activities.

Author Keywords

Sports, Interaction Design, Ethnography

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

Sports are currently under transformation due to significant advancements in technology and design. This trend is clearly visible and in particular in the rapidly increasing consumer market for digitalized sports gear. For instance recent examples of such technology include FitBits, Jawbone, BioHarness, GoPro, Samsung Galaxy Gear, Oakley Airwave and many others. Arguably, technology is becoming a driving force in itself for making us go out, move and live healthier lives. Interaction design research, a field in the midst of this change, has the opportunity to study and take part in this change by reflecting upon values, issues and design opportunities when it comes to interactive materials. Such materials when looking at the domain of sports may strive to harvest energy, sense aspects of the body or context, make computations, communicate with other materials and devices such as a mobile phone, wristwatch, internet or the cloud and also provide feedback to the user in novel forms using sounds, vibrations, temperature, light, etc. However, from a research perspective we are interested in the experiences regarding casual sports activities and in what way we can use interaction design to support such activities through interactive materials.

Related Work

Looking at more marginal practices in contrast to common sports activities help us to get inspired about new and novel technological challenges. For instance by starting from casual running, there are a number of sports activities that each would articulate different aspects of running and also emphasize different technological challenges to support these activities. Within the Mobile Life Research Centre we have previously looked at parkour [4] and more recently orienteering. Looking at the broader CHI community we have come across work that uses wearable technology to sense running styles and kinematics [2]. In the Affective Loop project Sundström et.al looked at self-reflection on bodily sensor-data [3]. For instance by reflecting upon one's own GSR-data in real-time, it is possible to respond and become affected by that feedback-loop through different modalities e.g. colors or vibrations. As a last example Mueller et.al have looked at designing interactive systems for sport activities that rather than being situated takes place over large distances in order to keep supporting social aspects of such activities [1].

Interaction Design Activities

The particular theme I bring for this workshop focuses on night runners – or in other terms people running in dampened light or darkness in order to get a feeling for the activity, technology involved, experiences and qualities that gets amplified when vision is less dominant. We are currently seeking to explore two threads of research based on two basic assumptions: Firstly, we explore this particular domain by attempting to remove the overall dependency on visual cognitive aspects as much as possible in order to get rich descriptions about experiences that comes from a

broader use of the human body. Secondly, we have assumed that this group of runners are using or might have some knowledge of the latest range of consumer products and are sharing their experiences of this through social media or in this case – their blogging practices.

A Guiding Example
In the following example we want to articulate how we want technology to effect sports:

Adam was introduced to the concept of barefoot running by a colleague. Adam's colleague is an experienced marathon runner and had had some problems with his hip and lower back not long ago. In search for the cause of his problems he had found reports online that people in similar situations had been helped by changing running style. One example would be to run barefoot as this would change the mechanics of the running body. While trying this new take on running introduced by his colleague, Adam realized that running barefoot or with very thin shoes gave him "senses" back to the foot. In practice feet appears to be as sensitive as hands, although often tucked away comfortably in shoes – bereaved of its capabilities to fully sense. Adam started to realize that while running barefoot – his new capabilities to experience running and the world around led him to explore new routes, run on the side of the roads, to appreciate and to remember what it was like to be a child sensing grass, concrete or gravel under his bare feet. To Adam, this renewed insight – had significantly changed the way he approached and experienced the world.

With this example in mind, we held a first Workshop on this theme of fringe sports at Mobile Life in September

Figure 1: Running at night shifts perception from visual cues to other senses (e.g. sound and touch) giving a quite different experience compared to running in daylight.

2013 where we explored different themes and aspects around night-running, constrained perception, embodied engagement with nature and cooperative emergent playfulness. After the workshop, a preliminary study was recently conducted on how people blog about these activities. Looking at these blogs we have begun to analyze and get to understand how users engage in the activities, what technologies they use or hint of and with a particular focus on dampened modalities such as the visual. After the analysis phase we will reflect upon challenges and experiences from this user group and then use the knowledge to inform a design process through tinkering with interactive materials suitable for this group. The goal is to create so called design briefs that are specifications for two or three possible implementations of a technology that could support a running sports practice and experience that is grounded in the interview data and motivated by a framing through state of the art analysis. In the end, we hope that such designs could potentially be relevant for the somewhat broader user-group of more mainstream runners.

Points for Discussion

For this workshop I would like to bring three themes to the table.

- Firstly and rather generally; what would be a sound agenda for HCI and interaction design research in relation to existing sports activities for example casual running?

- Secondly, by looking at all this new emerging wearable technology – what other types of experiences than quantification of data and presentation/reflection upon such data could be envisioned by the workshop participants?

- Finally, in what way can we set people up to not only "use" technology but to also let technology subtly yet elegantly enhance sport activities and more importantly their experiences thereof?

Acknowledgements

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