Minutes

Federico Fontana, Tuesday 29 September 2009 - 14:58:01

--- MINUTES FROM THE *NIW* MEETING ---

15-16 JULY 2009

INRIA Rennes - France
Room Sardeigne

Author: F. Fontana

Jul. 15 - The meeting starts at 10:45am

Participants:

UNIVR: F. Fontana, M. Civolani
McGill University: J. Cooperstock, Y. Visell
AAU: R. Nordahl, S. Serafin, L. Turchet
INRIA: G. Cirio, A. Lecuyer, M. Marchal, T. Regia Corte, L. Bonnet
UPMC: N. Ouarti

The Coordinator opens the meeting and welcomes the participants.

A. Lecuyer introduces the host institution and illustrates the meeting agenda for the two days.

Each participants briefly introduces her or himself.

11.15 Management issues:
- As the end of the first year is approaching, a discussion is opened on how to best manage the temporal process leading to the end of month 12 from now. The Coordinator will start interacting by email with the PO, to have feedback concerning the drafting of an agenda for these two months.
- McGill University has a new signing representative in substitution of Francois Carrier, who is the original signing person of the GA. The Coordinator has sent an email to the PO, to get feedback on this point. If not otherwise advised by the Commission, UNIVR will first receive a formal declaration from McGill University, then prepare an official letter containing the approval of the changed signature on behalf of the Consortium. This letter will be sent to the Commission before the end of the first year.

11.45 Meeting of the general assembly:
- The Coordinator distributes copies of an updated version of the CA, as proposed by McGill University concerning the protection of IP. The amendment is very similar to that included by INRIA. The GA accepts the proposed update.
- It is also decided that the new version of the CA will enter in force after the new McGill University's representative will be approved by the EC

12.10 Communication of project activities

- The Coordinator reports about the Coordinator's Day, attended in Brussels in June. On top of the several issues emerged during that day, at least two points are important to be communicated to all participants: i) the Coordinator will have to sign a declaration of completeness and timeliness of the web site. For this reason, all participants are urged to collaborate to improve the structure and content of the web site; ii) The Coordinator reminds to all participants that exchanges of funding can be planned between participants in the case that one participant is for any reason unable to spend the money awarded by the EC.
- The Coordinator reports about the Science Beyond Fiction FET event, happened in Prague on March. Overall the event has been a big success, instructive for all participants. Concerning the specific NIW exhibit, this has been a success as well. In spite of the relative youth of the project, the NIW stand in fact has been visited by many curious attendants. Most of them were engaged by the interaction with the tile and shoe interfaces, and positively impressed by their features. Above all, the project has been object of a press release from the BBC which has later proposed part of this release in the popular international TV program 'Click'

A discussion on how to organize the agenda for the rest of the meeting is discussed among the participants.

12.45 Lunch

14.00 Individual Participant activities

- UNIVR illustrates the first steps of the development of the sensing floor. Differently from existing prototypes such as those made in TAI-CHI, indeed well known by key persons in UNIVR, the idea is rather that of making a portable (floor-less) interface made of only four accelerometers. Once the accelerometers are attached onto the floor, this interface should detect presence as well as approximate position and gesture of walkers, as well as enable real-time acoustic interactions with them. For this reason, the idea is to avoid heavy analytical approaches during the design of the interface and rather use some kind of real time 'light' processing. Comments and hints come from McGill University participants.

- INRIA i) G. Cirio illustrates the the Magic Barrier Tape (paper submitted to VR). The model applies a pseudo-haptic illusion to limit the mobility of walkers when they are at the boundary of the physical space where they are making a VR experience, whereas allowing for a virtual extension of this mobility. The presentation of this system will be completed later in the afternoon, in the VR lab. ii) L. Bonnet shows results obtained with a VR model that simulates walking on a slope. Pseudo-haptics illusions of walking over peaks and holes will be provided in the VR lab during the afternoon. iii) T. Regia Corte presents experimental results on the perception of affordances in walking. Preliminary results are shown from experiments using inclined wooden surfaces as affordances.

15.30 Visit to the virtual reality laboratory

A. Lecuyer presents the visual VR facilities of the INRIA laboratory. Implementations of the aforementioned models are presented: holes and peaks, inclination (affordances), and virtual boundary extension (magic tape).

16.30 AAU (L. Turchet) shows slides presenting the research activity developed so far for the project.

Ideas for experiments assessing sensations of holes and peaks are discussed: Collaboration with Paola Cesari is proposed, maybe in the context of an articulate experimental session involving also other tasks.

The meeting closes at 17.45.

Jul. 16 - The meeting starts at 10:00am

Same participants as the day before.

10.15 Individual Participant activities (2)

- UPMC A Skype connection is opened with Vincent Hayward: possibilities for the next (review) meeting are discussed; feedback on the state of advancement of the shoe-based haptic actuators at UPMC is collected. The first prototypes will be realistically present at the end of the summer.

- Mc Gill University's recent work is presented. A strong corpus of activities id presented, fertilized also by parallel projects run by the participant. An update on active floor tile display is provided, now undertaking a thorough physical analysis of the system aimed at increasing control of the stimuli. Current floor technology and facilities at McGill are shown. Experiments on foot and body pose from force data are shown, along with running activities on foot motion tracking from floor textures.

12.00 Discussions. Overall, the Consortium acknowledges that all participants have individually gained interesting new results during the first project months, and are now in ideal conditions for initiating the integration that has been planned to start at the second year.

12.45 Lunch

14.00 UNIVR shows further developments of the active shoes. Now the prototype is more developed toward the form of a normal shoe. Sliding sensors have been integrated, that will be soon in condition to provide sonic feedback. A new auditory display system has been mounted, making use of a low-frequency loudspeaker and improved shoe-based small loudspeaker models.

15.00 AAU shows its first version of the rendering system. It makes use of audio microphones located at ground level, that control a sound synthesis system providing different ecological sounds in real-time.

16.30 A final discussion is started on perspectives for the second and third year.
- Concerning the plan of the experiments, the roadmap for the second year is already clear: McGill University and INRIA have already started to make experiments based on real as well as virtual multimodal feedback in walking settings (audio-haptic at McGill; visual at INRIA). More experiments are expected to start in a few months, tentatively one (audio only) at UNIVR. Concerning the third year, decisions about the experimental scenario have yet to be taken. Much will depend on the results coming out from the planned experiments.
- Concerning integration, it is time for the consortium to activate the necessary exchanges between researchers. Plans for collaborations between UNIVR and INRIA have been delayed, but they still hold. AAU and UNIVR will collaborate in the issue of sound synthesis more tightly. As soon as UPMC delivers prototypes for haptic feedback, their solutions will be immediately circulated by the partners.

The meeting closes at 17.45.