



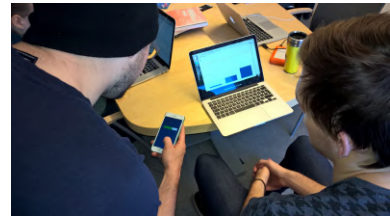
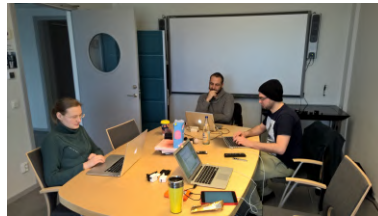
Open Lab Hours: Summary 12-02-2016 With Nico Reski & Romain Herault



The second *Open Lab Hours* session hosted by the Department of Media Technology at Linnaeus University was again a great success, thanks to you, the visitors. Once again we would like to thank everyone who stopped by and joined us to talk about media-technology related topics. Each week we will continue publishing a short summary and round-up about what was discussed and done during the Open Lab Hours.

Within this second session, we had the pleasure to see some familiar faces who stopped by during the first session a week ago, sharing the progress on their respective projects. Furthermore, some staff members joined us as well this time to discuss and share ideas with students about several projects.

One our bachelor students and Nico continued their discussions



around the 3D touch technology¹ embedded in the recent generation of Apple iOS devices. It was particularly nice to see the good progress of the bachelor student's thesis project, successfully demonstrating the access, visualization and logging of the pressure level data. As much as Apple advertises this technology as being a possibility of using a second level of pressure, it is actually possible to have a lot of different pressure levels according to the experiments and technology debugging conducted by the bache-

¹<http://www.apple.com/iphone-6s/3d-touch/>

lor student. We are excited to see this project evolving week after week. If you are curious about the project, feel free to stop by the upcoming Friday as we are sure the discussions around this topic will continue.

At the same time, PhD candidate Alisa Sotsenko engaged in a discussion about Open Data and Open Government Data², particularly investigating Open Data offered in Sweden. Gathering insights about Open Data sources, the conversation with Alisa moved towards examining the possibili-

²<http://www.oecd.org/gov/public-innovation/opengovernmentdata.htm>



ties of having an Open Data hackathon or app jam arouse, wagging pros and cons of hosting such an activity in the future. If you are interested to participate or have other thoughts on that topic, please come by and discuss the matter with us.

Meanwhile, last week's discussion about Augmented Reality using Unity3D continued with Romain and one of our master students. Last week we talked about Vuforia³ and Unity3D as well as ENTiTi⁴.

This week we talked about the usage of Unreal Engine 4⁵ and the possibilities of using Augmented Reality with it. ARToolKit⁶ is a commonly used AR framework. The Unreal Engine 4 version is called Unreal4AR⁷. We tried some basic examples and installed this version accordingly on the lab computers for future usage. Aris Alisandrakis stopped by and talked about ideas that could be implemented using Augmented Reality. More specifically he encouraged the student to investigate the interaction of multiple tags with each other.

We then engaged in a more general discussion about Oculus Rift in combination with Leap Motion and how to set up these technologies together using Unity. If you are interested in combining Oculus Rift and Leap Motion, you should stop by and visit us, as we have some experiences and hints to share from conducting different projects.

During the whole session, Ro-

³<https://developer.vuforia.com>

⁴<http://www.wakingapp.com>

⁵<https://www.unrealengine.com/>

⁶<http://www.artoolkit.org/>

⁷<http://www.unreal4ar.com/>

main explored the application of iBeacons⁸ using iOS. iBeacons can be detected by mobile devices in order to trigger alerts and different types of interactions. It is also possible to detect approximately where a beacon is located. This localisation is not perfect and depending on the beacon calibration, it can vary from 30 cm to a meter. Deploying several iBeacons in a room, detecting their position and using triangulation techniques could potentially help to determine the location more accurately. A first rough debugging has shown that some noise can occur and thus distort the results, such as e.g. caused through other devices using Bluetooth or just furniture blocking the signal. We will continue exploring this technology and keep you updated on new findings.

Furthermore, the Interaction Lab and some of its technologies got introduced to several teacher students. They were presented with the Oculus Rift head-mounted display, actively engaging in a demo allowing them to navigate in a 3D space by simply looking around. Later on they tried the Google Cardboard⁹, enabling virtual reality by using your own smart phone. Trying Virtual Reality for the first time is an experience. If you never experienced the Oculus Rift before and want to know more about it, feel free to stop by. The teacher students were also introduced to the process of printing 3D objects. If you have a project that requires the usage of the 3D printer, we could discuss about this on a Fri-

⁸<http://www.ibeacon.com>

⁹<https://www.google.com/get/cardboard/>



day morning. We even have a workshop ready if enough people are interested. At this point, we would like to encourage you again to let us know in advance using our Hackpad, so we can prepare something for you if required.

We hope you got an impression of last week's activities. As we covered different topics and had meaningful and productive discussions, we look forward to continue doing so during the next Open Lab Hours session on **Friday, 19.02.2016**. Feel free to stop by and drop in at the **Interaction Lab in room D2270A between 9:00 and 12:00**.

All creatures welcome.

For more information, please head over to bit.ly/OpenLabHoursLNU.