

Thesis Proposal (MA/ BA/ IDP)

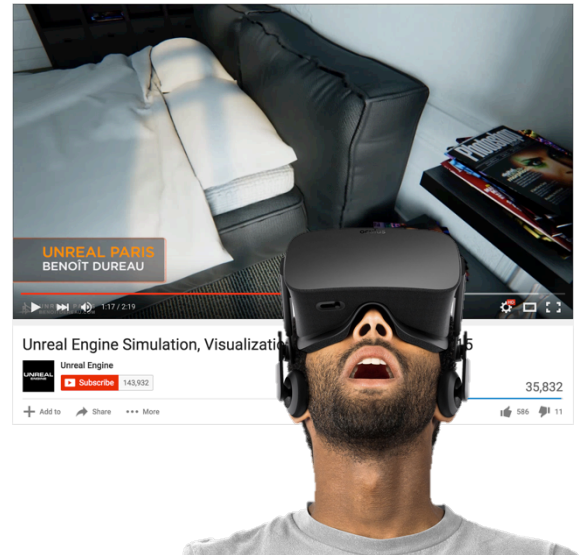
Innovative Smart Space User Interfaces

Outline

Smart Spaces are spaces where you can control functionality of the environment via software. While this is a cool thing, it is challenging to provide good user interfaces.

This is the topic of this thesis.

Possible solutions include virtual worlds such as the Unreal engine¹² on the right, and the use of augmenting technology such as head mount displays like the Oculus Rift on the right. Smart watches are another possibly suitable technical accessory for such a user interface...



Possible Structure

- Analysis
 - o Technology review
 - o Review of suitable usage and adaptation patterns
- Related work
 - o What do other projects do that answer related questions?
- Design
 - o Which components do you need?
 - o Security, dependability, scalability, ...
 - o Which are options for the design? Why are your choices good?
- Implementation
 - o Frameworks used, screenshots, etc.
- Evaluation
 - o How well does it work?
 - Metrics!

Requirements

Curiosity, Joy to work in a team, Knowledge in Java.

Ability to write good code (including unit tests and documentation).

Contact

If you are interested, please send an email briefly explaining why you think to be the right person for this thesis to:

Marc-Oliver Pahl

pahl@net.in.tum.de

<http://s2o.net.in.tum.de/>

Image sources:

<https://www.youtube.com/watch?v=tdCOyNyrdq>

https://static.oculus.com/web/www_static/production/US/8fc44cb8a0d623f6e2128d3075bda221c25911bc/images/rift/hero.jpg

¹ <https://www.unrealengine.com/what-is-unreal-engine-4>

² <http://www.defold.com/faq/>

