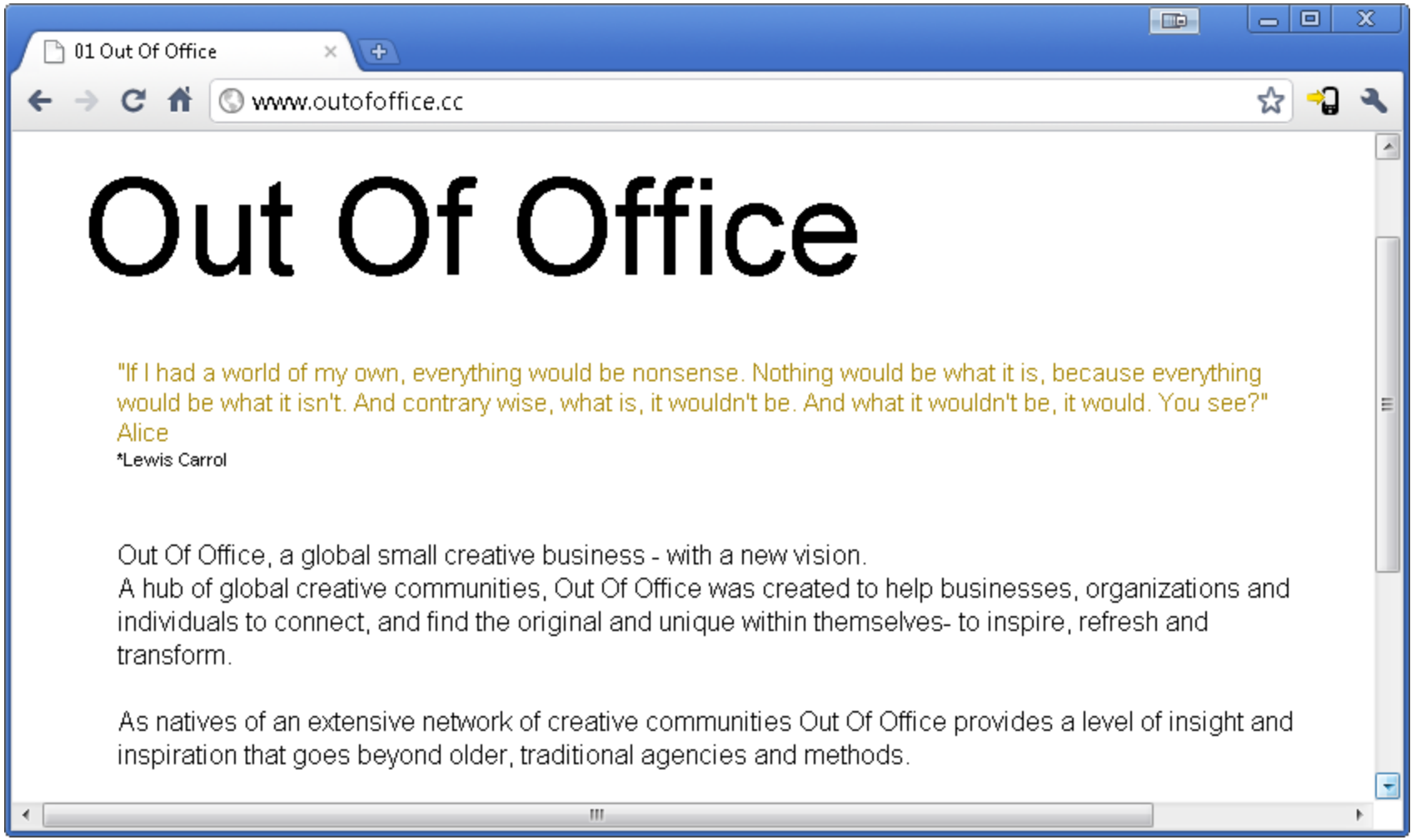
Realities

Completely virtual?

Replica of the real? Or extra dimensions?

Need help in living digital?

Where is the real office?



Public spaces as new offices

Inspiration precedes the desire to create...

It's the world where we connect with others...

The main focus for Out Of Office is about refilling a creative consumer insight 24/7. If we suddenly get a big idea, we hop over to the nearest public library or coffee shop. Pull out our laptops, log on to Internet and get busy

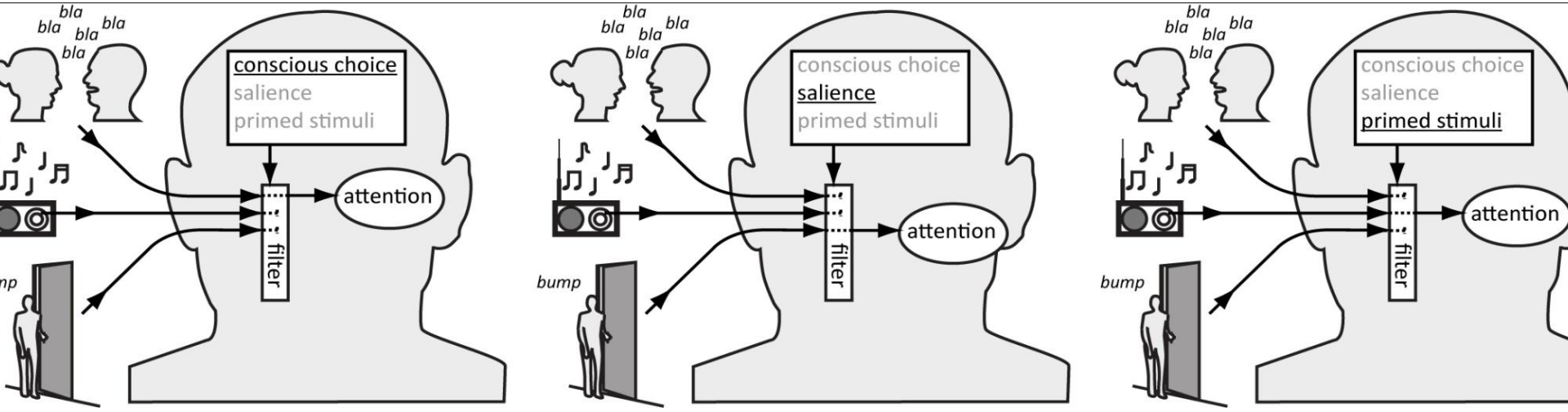
New Realities

Facebook as their new city?

New Realities

New Social Currencies

Attention! Here, and there



"…the ubiquitous and adaptive systems that our students design weave themselves into the fabric of everyday life. This implies that the boundaries between the real and the virtual are blurring. But what are the implications of this merger? How to respond to these new challenges and opportunities?"

Eindhoven Designs, volume four

"Our theme 'realities' is about that what is, and that what could be. Design has the power of societal transformation. In 'realities' we aim to use this power to make positive change. "

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How can we design objects and systems in an intelligent way to adept to individual realities to enrich everyday life?“

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Design manipulates the boundaries

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Design manipulates the boundaries

- by
  - Blurring
  - Augmenting
  - Mixing
  - Connecting
  - Crossing
  - …

Blurring

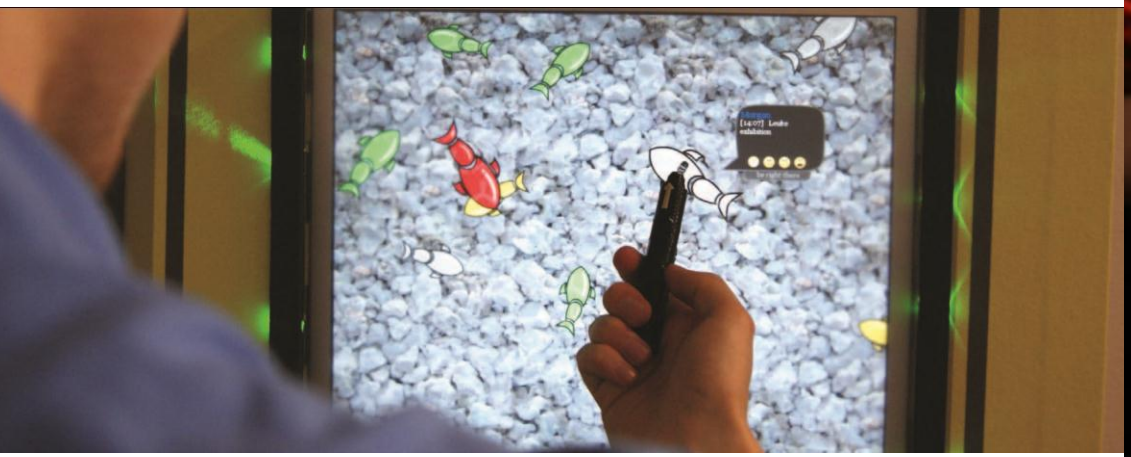
Augmenting

Augment the digital memory

Augment the physical environment

Mixing

Connecting



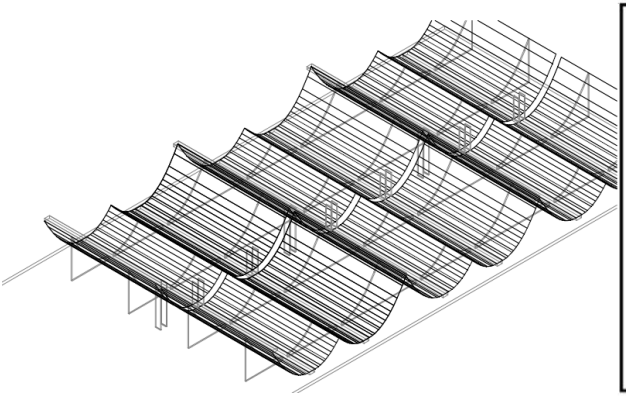
Crossing

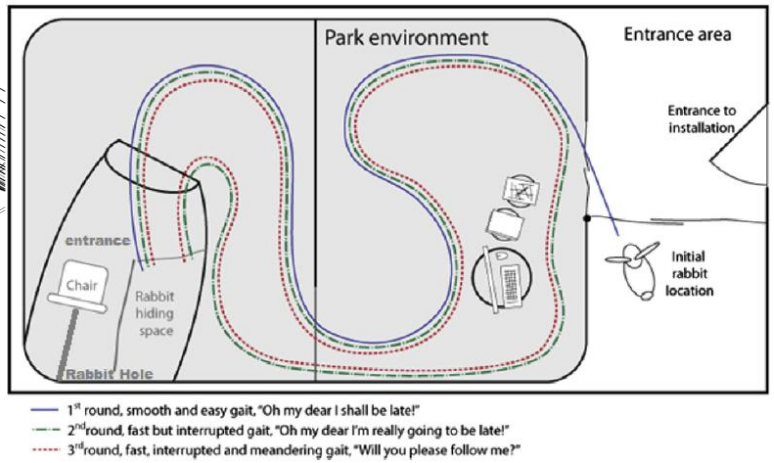
Education and Research Integration

- Facilities/Test-beds
- PhD Research

Facilities/Test-beds

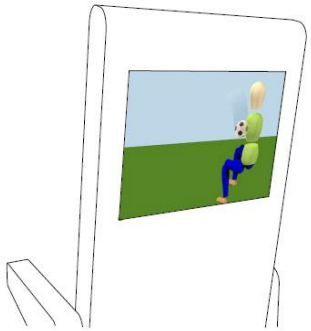
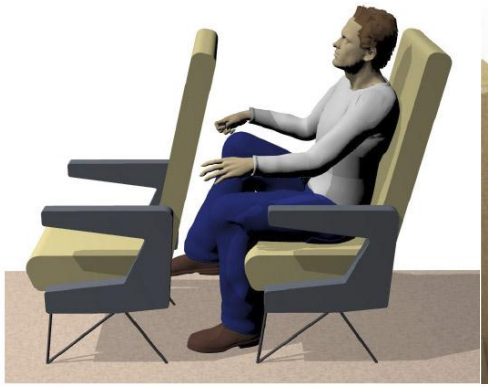
- ALICE Lab





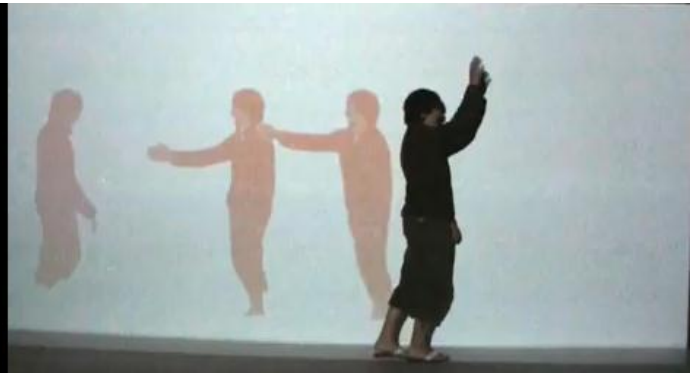
Facilities/Test-beds

- Flight Simulator (Simulation Lab)

Facilities/Test-beds

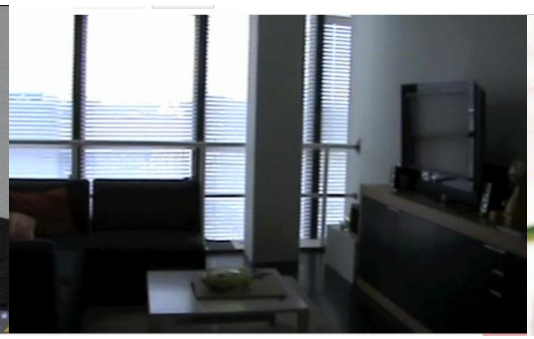
- Vision Studio



PhD Research

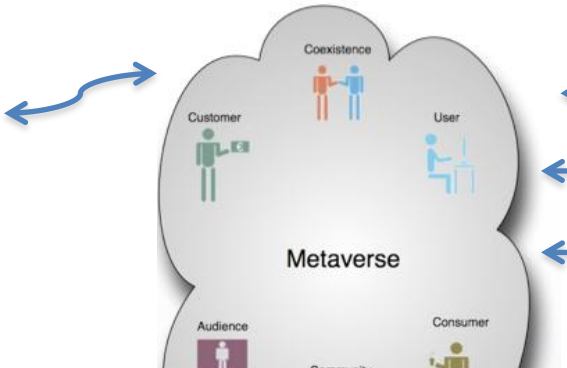
- Metaverse1

External student project (collaboration with DevLab): Replication of real and virtual spaces



Virtual worlds

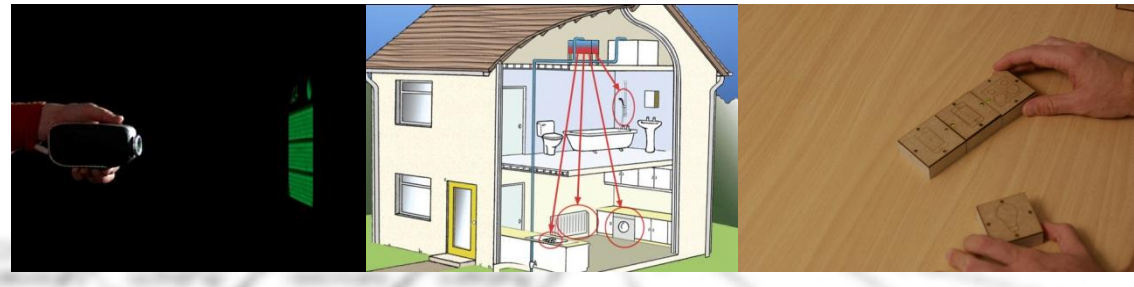
Exchange of information

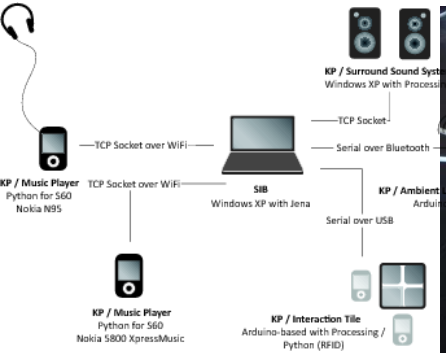


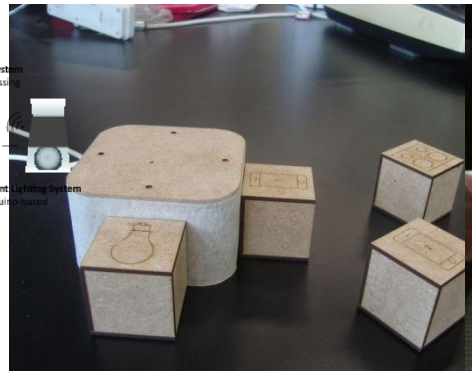
Real devices

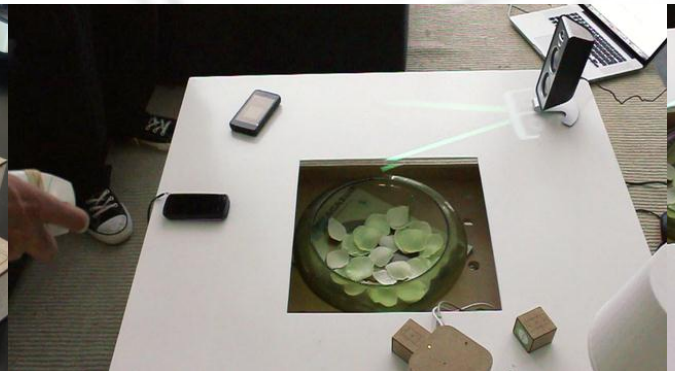
PhD Research

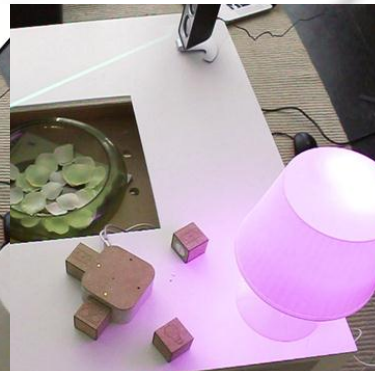
- SOFIA





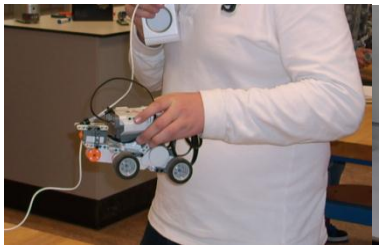


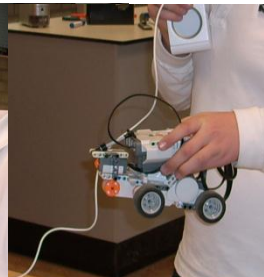




PhD Research

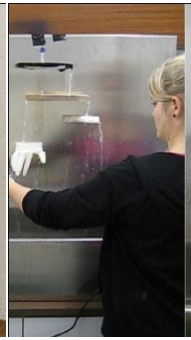
- ROILA

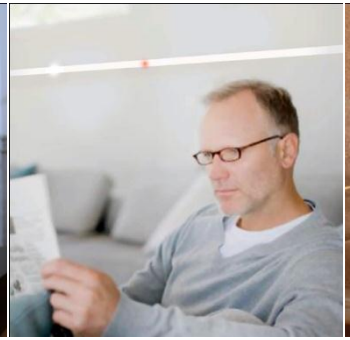


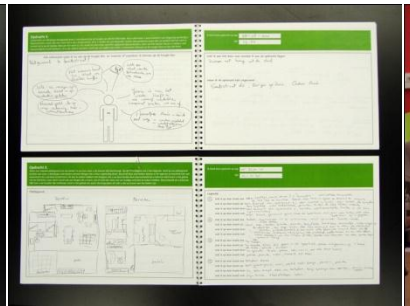


PhD Research

- Talking Tangibles







PhD Research

- Responsive environments (TU/e & UvA)

- Merging Architecture, Design and Media, focusing on the design of experiences/situations

Output - exhibitions

ID’X Dutch Design Week

- Reshaping exhibition design, by enhancing experiences
- Translating ID’s innovative vision into its showroom during DDW
-Rethinking information display, spatial storytelling and trans-local media

Output - publications

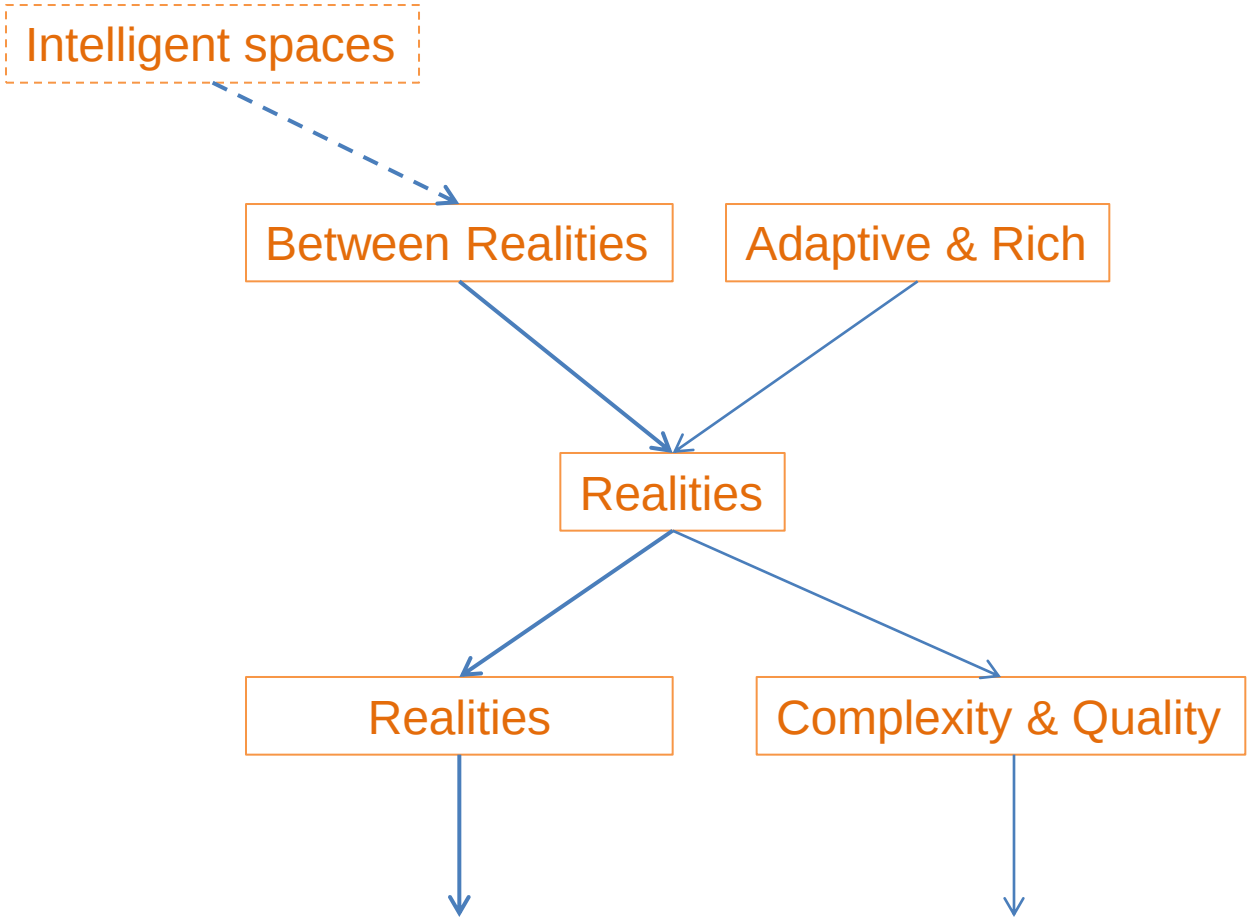
- R. van de Westelaken, J. Hu, H. Liu, and M. Rauterberg, “Embedding Gesture Recognition into Airplane Seats for In-flight Entertainment,” *Journal of Ambient Intelligence and Humanized Computing*, vol. (accepted), 2010.
- J. van Aart, C. Bartneck, J. Hu, M. Rauterberg, and B. Salem, “How to behave as Alice in Wonderland – about boredom and curiosity,” *Entertainment Computing*, Volume 1, Issues 3-4, December 2010, Pages 125-137.
- Golsteijn, C. and Hoven, E. van den. Facilitating Communication About Books Through An Online Community. In Personal and Ubiquitous Computing, Online First, DOI 10.1007/s00779-010-0301-0.
- Faber, J.P., and Hoven, E. van den (accepted). MARBOWL: Increasing the Fun Experience of Shooting Marbles. In “Tangibles and Children” a special issue of Personal and Ubiquitous Computing.
- Bakker, S., Antle, A.N., and Hoven, E. van den (accepted). Embodied Metaphors in Tangible Interaction Design. In “Tangibles and Children” a special issue of Personal and Ubiquitous Computing.
- M. Kwak, G. Niezen, B. v. d. Vlist, J. Hu, and L. Feijs, “Tangible Interfaces to Digital Connections, Centralized versus Decentralized,” *Transactions on Edutainment*, vol. V, pp. (accepted), 2010.

- Kimman, F., Weda, H., Hoven, E. van den, Zeeuw, T. de and Luitjens, S. (accepted). Spinning in Control: Design Exploration of a Cross-Device Remote. In proceedings of TEI’11, January 23-26, Funchal, Portugal.
- Bhömer, M. t., Helmes, J., O’Hara, K. and Hoven, E. van den (2010). 4Photos: A Collaborative Photo Sharing Experience. In proceedings of NordiCHI’10, October 16-20, Reykjavik, Iceland, pp. 52-61.
- Bakker, S., Berg, R. van den, Pijnappel, S and Hoven, E. van den (2010). Sounds Like Home: Sonification and Physical Interaction in the Periphery and Center of the Attention. In proceedings of ISon 2010, April 7, Stockholm, Sweden, pp. 55-58.
- J. Hu, and S. Offermans, “Beyond L$: Values across the Virtual and the Real,” in International Conference On Advanced Infocomm Technology Xi’an, China, 2009, pp. 1-4.
- Antle, A.N., Corness, G., Bakker, S., Droumeva, M., Hoven, E. van den and Bevans, A. (2009). Designing to Support Reasoned Imagination through Embodied Metaphor. In proceedings of ACM Creativity & Cognition ’09, October 26-30, Berkeley, USA, pp. 275-284.
- J. van Aart, B. Salem, C. Bartneck, J. Hu, and M. Rauterberg, “Designing for Experience: Arousing Boredom to Evoke Predefined User Behaviour,” in 6th Design and emotion conference, Hong Kong,
- R. van de Westelaken, J. Hu, H. Liu, and M. Rauterberg, “Integrating Gesture Recognition in Airplane Seats for In-Flight entertainment,” *Technologies for E-Learning and Digital Entertainment*, Lecture Notes in Computer Science Series, 5093/2008, Z. Pan, X. Zhang, A. E. Rhalibi et al., eds., pp. 353-360, Nanjing, China: Springer Berlin / Heidelberg, 2008.
- … more at http://realities.id.tue.nl/resources/literature/

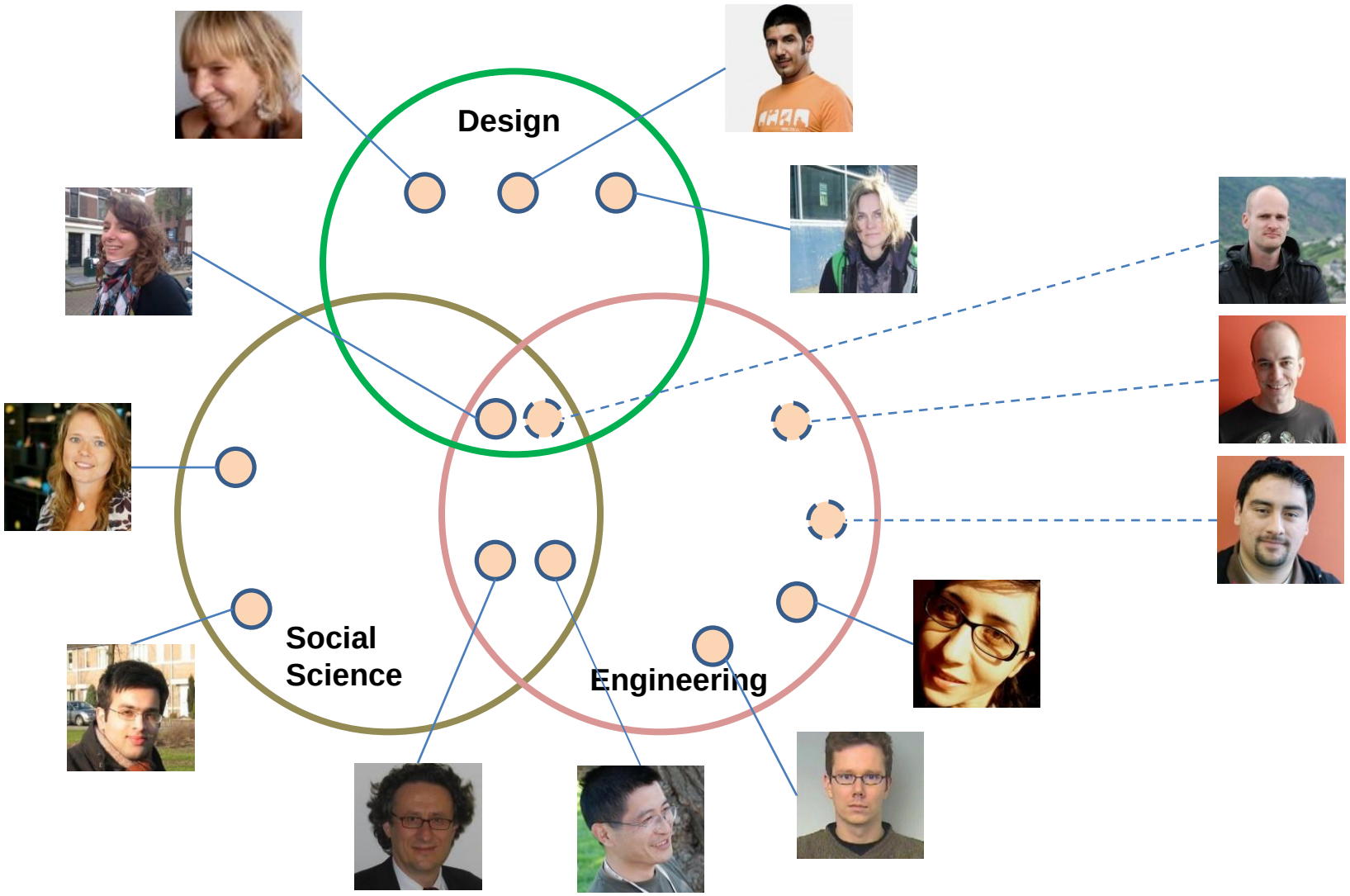
Clients

- amBX, UK
- Asuro, Eindhoven
- 250K
- Digital World Research Centre, Univ. of Surrey, United Kingdom
- Philips Research Eindhoven
- Meraka Institute, South Africa
- Stichting Jeugd & Gezin
- Lumens groep
- AB-Ire
- Kempenhaeghe
- Conante, Germany
- Philips Research Shanghai, China
- Maraxis
- MMC
- Schokoladenmuseum Köln
- Ondal Industrietechnik GmbH, Hünfeld
- ARCES, Bologna, Italy
- ……

History

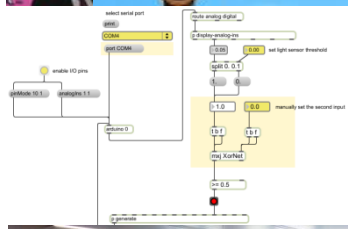

Intelligent spaces
Between Realities
Adaptive & Rich
Realities
Realities
Complexity & Quality

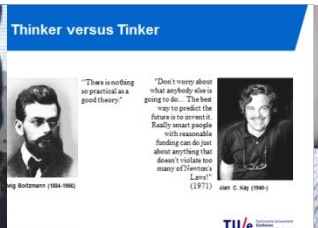
People

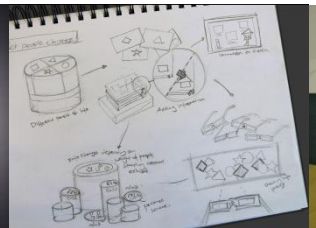


Activities

- Lunch meetings
- Realities.id.tue.nl
- Invited talks
- Hands on workshops
- Skills market / Q&A
- Elevator-pitch presentations







Cooperation

- Co-coaching with “Adaptive & Rich”
- Projects across themes
  - “learning & time”, together with Health care
  - “cabin design”, Automobility (simulation lab)
- Cross theme workshops (adaptive & rich => Complexity & Quality)
- “Visions of future” assignment (BPD) at Vision studio
- Sharing equipment, Vision studio ⇔ GameLab at Playful interaction

- Presented the theme at Jiangnan University & Zhejiang University
  - Co-project over internet planned
  - Exchange expected
- Internship/exchange expected at University of Bologna
- ……

To be improved

- Strong industrial partner(s)
- Integration across research groups
- Focus area(s): **(digital) well-being**
  - Cultural computing
  - (Mobile) augmented/mixed reality
  - Social networks
  - Tangibility

Next steps

- To improve “to be improved”
  - Introduce “Realities” to research groups.
    - Informal talk at DI done.
    - Informal talk at DQI has been scheduled.
    - Other groups to follow.
  - Continue the effort in searching for strong industrial partnership
  - Focus through the white paper
  - Theme oriented/cooperated funding proposals
    (First streams, Metaverse1, SOFIA => More submitted => More to be planned)
- Besides the test-beds, a playground integrated in the space
  - Projected VR; Mobile AR; Microcontrollers/sensors/actuators for AR, VR, Tangibles; Software libraries; Demos/Examples;
- Strengthen/expend International Connections

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