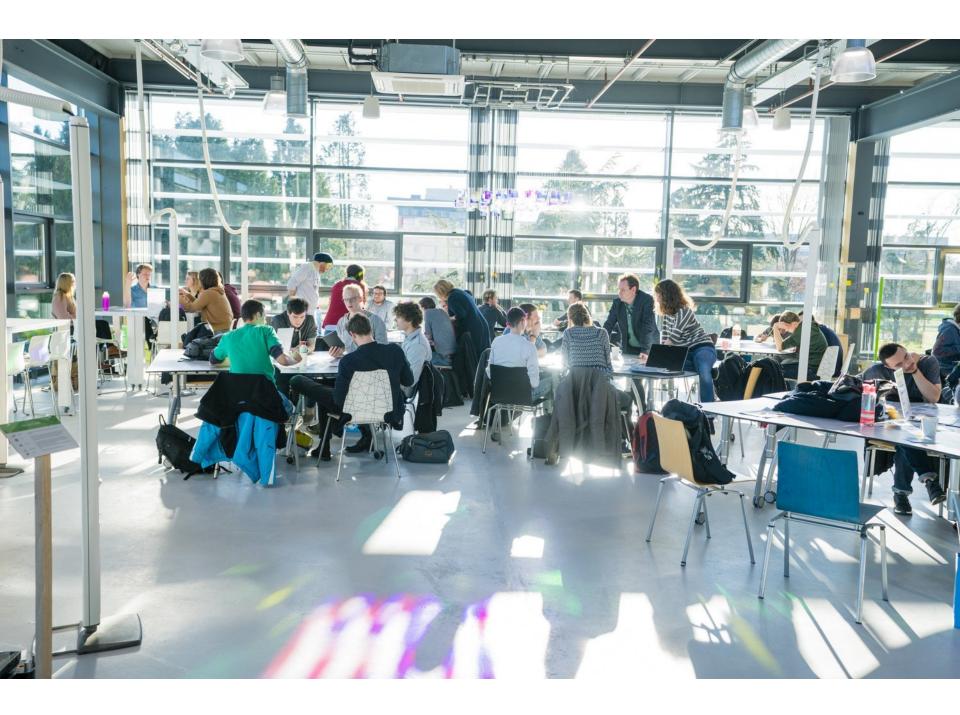
HOW TO BECOME A ROBOT?

Dirk Heylen
Prof. Socially Intelligent Computing

IMAGINATION

RESEARCH QUESTIONS | DESIGN METHOD

INSPIRATION



DREAM | ORIGINS

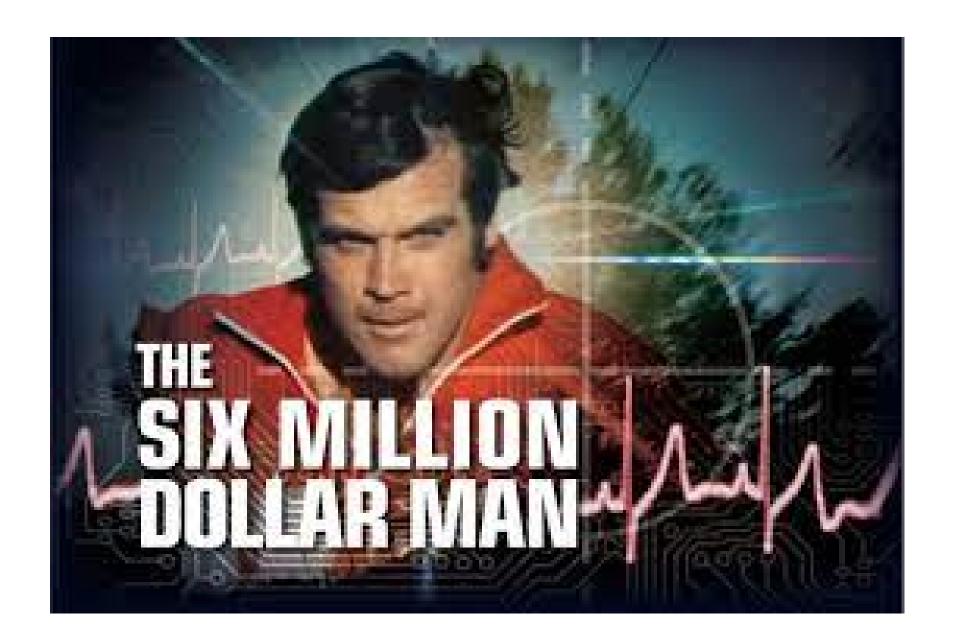


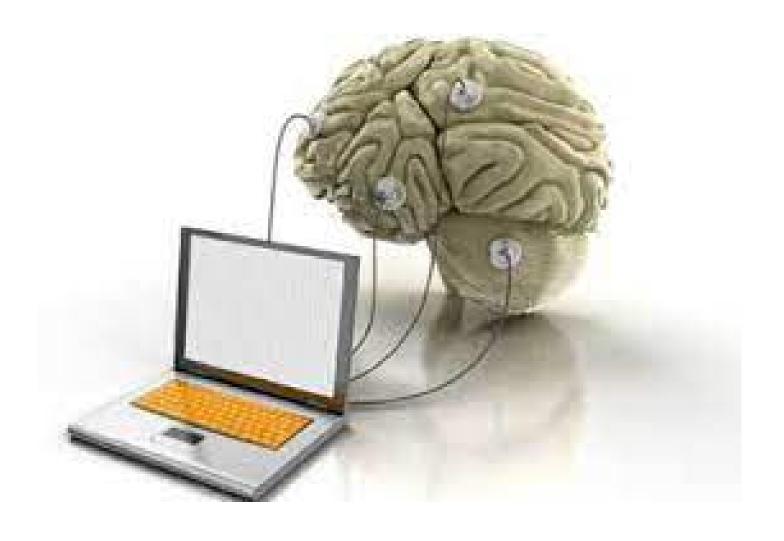






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Reading tip: Mark O'Connell: To be a Machine: Cyborgs, Cryonics, Transhumanism

DREAM | ORIGINS + Gerard

THUNDER THURSDAY



THUNDER THURSDAY

IMPROVED DESIGN

BUILD YOUR OWN // SPECIFICATIONS

There are thousands of ways to build and extend your own So-I-C.TV. Our current recipe includes the following ingredients:

An Inward-facing (A)R display (any smartphone will do)

An Outward-facing (A)R display (any tablet will do)

A rigid head-mounting frame (such as a cardboard box)

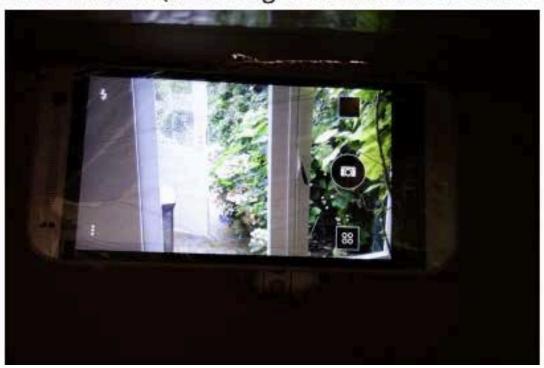
Start with cutting a window into the frame:



Then mount the tablet into the frame. The camera faces the wearer inside the box (keep it at eye level), the screen faces the public. Duct tape will do:



Next, mount the smartphone inside the frame, so that the display faces the wearer, and the camera faces outwards (don't forget to cut a hole for the camera):



Of course, personalisation is possible. If you want, pimp your So-I-C.TV with some additional colours!





PRACTICAL USE | TESTIMONIAL

K. says:

I was tired of wearing glasses or contacts. When it is hot, wearing glasses irritates your nose so much from the sweat. Often, in the morning, I couldn't put in my contact lenses because my hands were shaking from drinking one or two cocktails. Now, I just put on SO-I-C.TV in the morning and can relax. I recently installed the PhotoShop app that brushes away the bags underneath my eyes. It is wonderful guys. I have it running all of the time. And what is also nice, I can adjust the camera angle a bit so that it doesn't show too much of my hair in case I have a bad hair day – which is about every other day.

PRACTICAL USE | SKYPE

Meet **Stefan Wabner**, actor, mime and part-time robot. When he isn't traveling around the world with his theater group "Pantomime Popkultur", Stefan likes to get into character as a mime robot he calls Steve the Machine. Recently, Stefan found a new use for Steve. Thanks to an upgraded face (a video screen), Steve now has a new job as a telepresence robot. Yes, that's right, it's a human dressed as a robot, filling in for a human.



eventmanagerblog.com/telepresence-robots-events



A man with severe motor disabilities controls a telepresence robot and interacts with people over Skype

TESTIMONIAL

S. says:

I was out of a job for a while. Robots have been taking over so many jobs. Luckily now, SO-I-C.TVs work on human power: my power. I am now like an Uber-Robo-Presence machine. People hire me instead of buying a telepresence robot. I put on the SO-I-C.TV and go to meetings by car or public transport. I'm so flexible being able to make autonomous decisions. Most people telecontrolling a robot get tired very soon. It takes ages to have it drive from one city to another and most of the time the battery breaks down halfway and the robot gets stranded somewhere. My battery life is nearly endless, I never tire, I can work for hours on end, and I can feed on anything from stir-fries, spaghetti to sushi from all-you-can eat restaurants.

+ | ?

ADVANTAGES

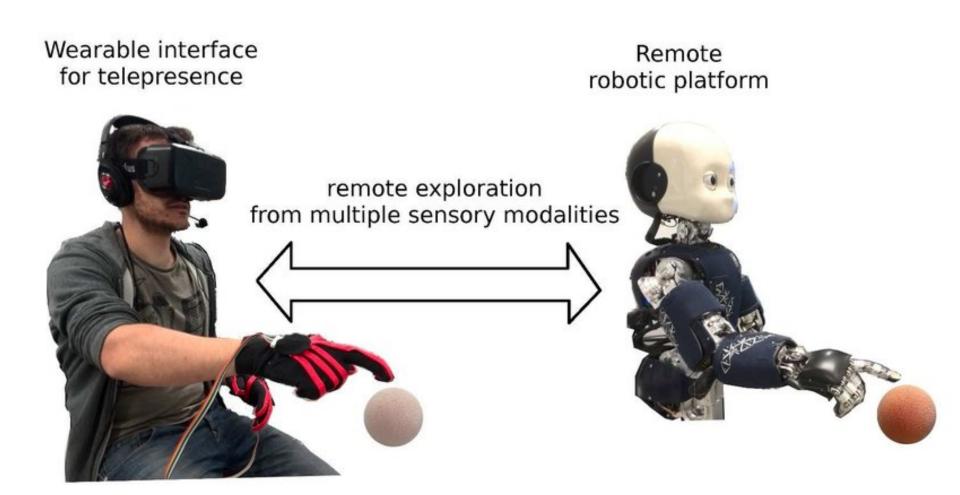
NON-VERBAL COMMUNICATION
NAVIGATION
NO BATTERIES
EASY TRANSPORT
CHEAP

QUESTIONS

HOW DOES IT FEEL TO BE A ROBOT?
HOW DO YOU CONTROL THE ROBOT?
HOW DOES IT FEEL TO INTERACT WITH THIS
"DUO"?

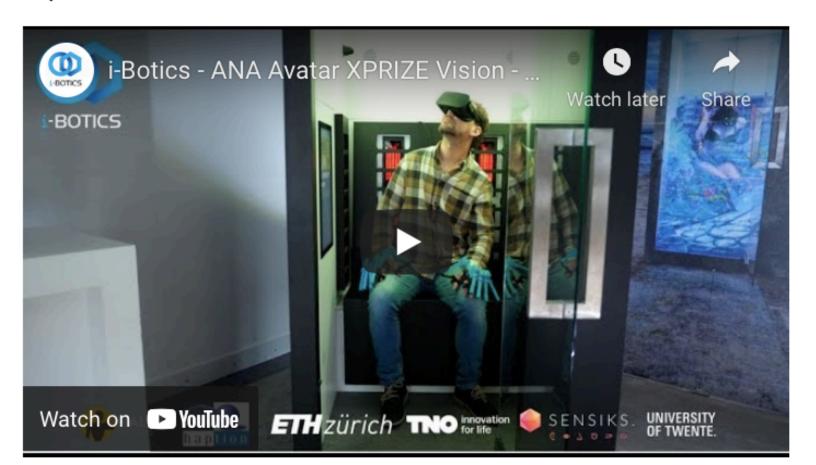
HOW DO WE MIX CONTROL AND AUTONOMY?

TELE-OPERATION OF ROBOTS



Towards a wearable user interface for immersive telepresence in robotics Martinez-Hernandez et al. (2016)

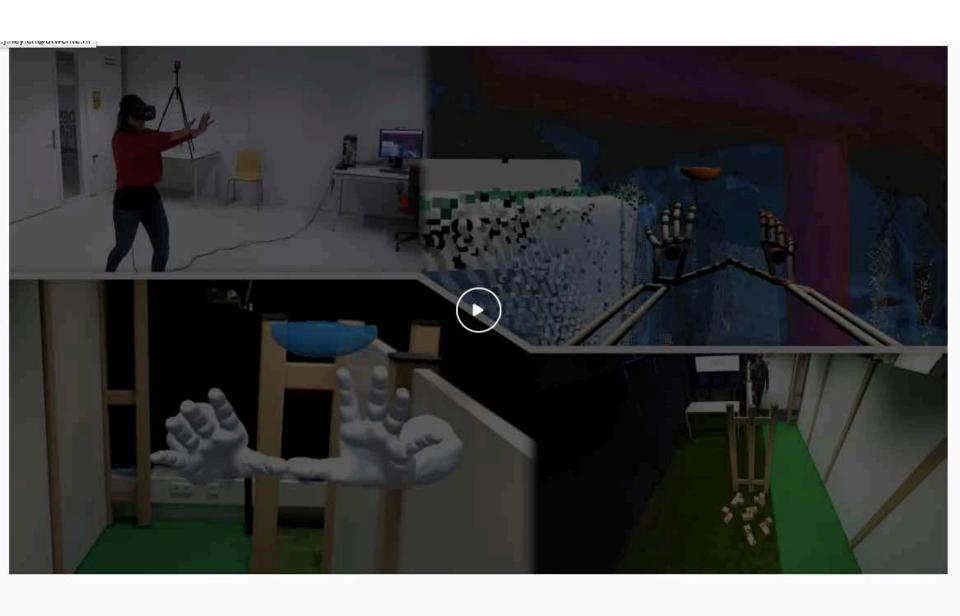
'Imagine a humanoid robot that you can fully control,' explains UT professor Jan van Erp and lead scientist of the i-Botics team. 'You operate the robotic avatar from a special cockpit, a cabin that closes off your local environment, while the robot can be anywhere else in the world. Through the system, you essentially become the robot and it copies what you are doing, all your motions and facial expressions. That way we can transport human presence to a remote location in real time. There is no physical barrier of space and time anymore.'





https://www.utoday.nl/news/69775/ut-scientists-going-to-xprize-semifinals-with-robotic-avatar

TELEPRESENCE IN MIXED UP REALITIES



https://emielharmsen.com/portfolio/openimpress/

SO-I-C.TV

SO-I-C.TV is an amazingly versatile product that will replace more than half of the appliances you use in the house and while on the move. It is the mobile media equivalent of the Swiss Army knife. It is Oculus Rift, and Google Glass all in one. It replaces Telepresence robots. Are you wearing glasses or contacts? You can throw them out of the window. What's more. You can use SO-I-C.TV also as a selfie-stick, smartphone, regular television or radio and even as an umbrella.

