**Why dev devthis?**

ICT - the web as old school
  ➡ interactivity & networking
  ➡ context sensitivity
  ➡ social media, co-design
  ➡ adaptive & adaptable

Professional education
  ➡ apply scientific research

Fun 2 Learn 4 Students
  ➡ between internship & final thesis
  ➡ do research with students

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**Base line**

➡ cooperate in projects
➡ technology (web, games)
➡ creativity & concepts
➡ user centered attitude & tools

➡ no ubiquitous computing, social media, internet of things, sensors, open data, semantics ...

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**DevThis**

➡ Teams of 1 ... 5 students
  ➡ a social, mobile, context-sensitive app
  ➡ work on a project of your own choosing

➡ DIY: own idea, design approach, knowledge about platforms, toolkits, SDK's ...
➡ Classic: lectures, scientific papers, video's ...
➡ Social: mini-lectures, workshops, wiki ...
  ➡ teach your class-mates

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**DevThis assignments: DIY teaching**

➡ Develop a mobile social context-sensitive application on iPhone, Android to enhance social cohesion in the local community.

➡ Concept, poster, design method, reqs & specs, presentation, code, demonstrator and write a report and a scientific paper

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**Theoretical basis: 'classical' teaching: lectures & scientific papers**

➡ ubicomp, pervasive, ambient
➡ interfaces: AR / VR, tangible, natural, gestural, sensory, adaptive ...
➡ human perception: vision, speech ...
➡ design: agile, co-design, living labs ...
➡ internet of things, nfc/rfid, sensor networks, semantic web, open data ...
➡ find, skim, read, structure, write, refer to papers

>> write a short essay on HCI / ICT in 2050?
Example assignments

- read
  Weiser (1991), computer in the 21st century
  Harper et al. (2007), HCI in the year 2020
- examine
  www.grindr.com
  common.sense-os.nl
  Santoro et al. (2007). A multimuseum guide
- do
  analyse the structure of a conference paper
  pick some relevant papers to prepare
  for your mini-lecture

DevThis assignment: social teaching

- Your ambitions
  how does generative art work?
- Your project
  a drag & drop CMS prototype
- Mini-lecture
  object recognition on a mobile phone
- Workshop
  a scrum, arduino ... session

>> Skills & knowledge are shared in the classroom

>> Insights are accumulated / shared in a Wiki

Project deliverables

- projectplan / research
- vision & concept: poster
- design & technical specs
- code / prototype / demonstrator
- presentations
- bonus mark: scientific paper / demo

>> Students learn how to do scientific research

>> Research contributes to staff research

Example projects (1)

- eg. Poken, 4Square, Grindr …

Socialize this demo

WhereU@

In the Clouds

Example projects @ SensorLab 2012

- Wifi broadcasting @ site
- Building access control
- Mobile money
- Indoor climate control
- Bluetooth remote for old TV’s
- 3D aerial photography
- Herba sense
- Ubiquitous gaming in & with Sensorlab
- Facial recognition & authentication

From here

- better students
- papers & posters
- beyond mobile & location-based:
  sensors, rfid, intelligence, adaptivity
- more than wiki?
- always write a research paper?
- design in the wild: sensorlab, living lab!

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http://members.upc.nl/g.haan24/
http://www.humancenteredict.nl
IOT design - structure

- Technical know-how declines
- Creativity increases
- Cooperative problem-solving

Context-sensitive app as a mash-up

IOT design - process

- Iot design as media or web design
- Phases are NOT linear

Analysis:
- user needs/wishes
- context techniques
- business ideas...

Eureka!

Prototype

Sensor lab

Concept

Market opportunities