Opening up Closed Systems with Sensible Data

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Content
- User Centered Design
- Human Centered ICT
- Data in Sensitive Environments
- Structured and unstructured data
- Museum e-Guide example
- Conclosure

User Centered Design - UCD
- design aimed at a user group
- usability design principles (ISO)
- focus on interface usage as a tool
  - tool perspective
  - usage as development process
  - status and image
  - social interaction

Human Centered Design
- changing field of application ‘market’
  - consumer, peers
  - away from business procedures
  - at home and everywhere (mobile, ambient, ... )
- different perspectives
  - social interaction
  - ICT as a mere technique
  - user experience design

Human Centered ICT
- ICT to facilitate social interaction
- emergent technologies
- sensitive environments
- intelligent infrastructures
- LivingLab

Sensitive Environments
- RFID
- Bluetooth
- ZigBee
- WiFi
- Infra-red
- environment sensors - eg movement
- biosensors - eg heart rate
Data in Sensitive Environments
- Structured data (DBMS) makes sense within the Closed World
- Semi-structured data (XML)
- Unstructured data (Text) makes sense but uncertain, unreliable

How to create surplus information
- use closed-world data to make real-world data reliable
- use real-world data to make closed-world data interesting
- use multiple sources to improve usefulness

Museum e-guide example - UCD
- How to provide guidance information about a work of art at the right level of expertise.
  UCD / tool perspective:
  - ask users to specify the art-work and the expertise
  - a more button
  - an interest profile card

Museum e-guide example - HCIct
  HCIct / sensing perspective:
  - get art-work from a beacon
  - get expertise from time at a beacon
  - get interest profile from time at sets of beacons
  Multiple source perspective
  - add expertise from movement patterns at various beacons
  - add interest profile from sources on the internet

How to get semi/unstructured data
- keyword matching
- user profiles
- web-crawlers
- metadata
- semantic analysis
  relations may not be strong but there are many
  may not be very reliable but they are free
  the more sources the more useful the information

Conclosure
- Human Centered ICT
- sensitive environments
- intelligent infrastructure
  real-world makes closed-world data interesting
  closed-world makes real-world data reliable
  multiples sources make data useful
  Thank you! / Questions?