

Interaction on the Move

CHINZ 2010 Keynote

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- Out in the woods or in the city, it's all the same to me...the world's my home when I'm mobile
 - Going Mobile – The Who



Topics of Interest

- **Mobile device evolution and affordance**
- **Disruption (of different kinds)**
- **Some milestones in mobile learning**
- **Mediascapes**
- **Augmented reality**
- **Haptics**

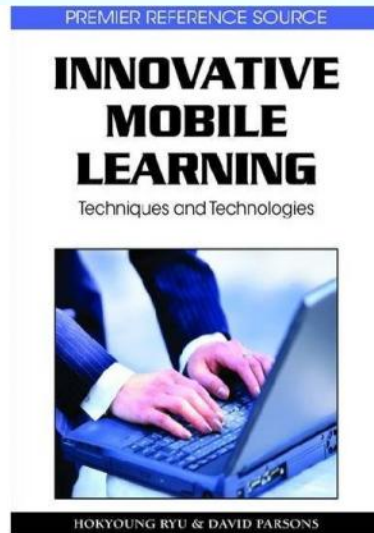


Learning

- No longer just about information



Mobile or Portable?



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Being Mobile

- **What's the distinction between mobile and portable?**
- **What can you do when moving?**
- **What is good about being able to move at the same time?**



Affordances and Disruption

- **Mobile disruption is based on mobility being the key value proposition**
 - Doesn't matter if other aspects have reduced utility
 - What are the affordances of a mobile device?



A Personal Computer

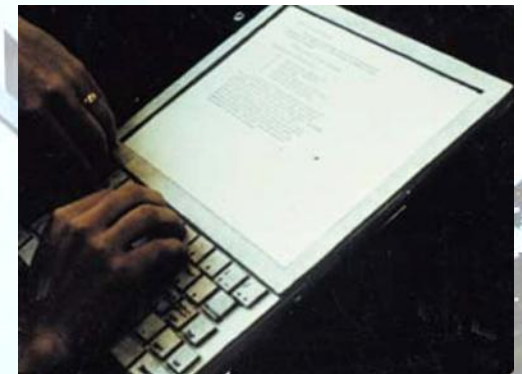
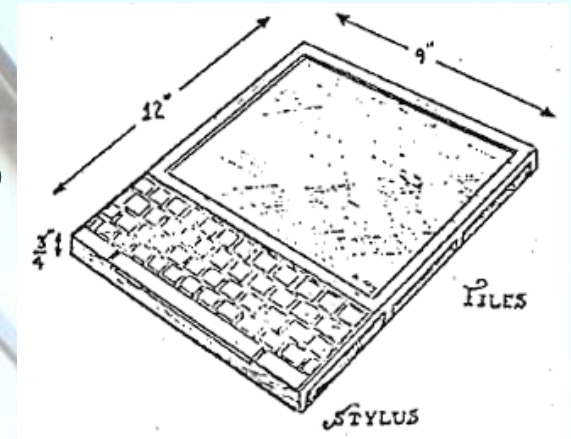
- ***“Superior to books and printing in at least some ways without being markedly inferior in others...owned by its user... and portable (which means to me that the user can easily carry the device and other things at the same time.) Need we add that it be useable in the woods?”***

- A Personal Computer for Children of All Ages - Alan Kay 1972



Dynabook (1968 - 1972)

- Carry anywhere device
- No larger than a notebook
- Weigh less than 4 pounds
- Flat panel display, quality similar to a book
- Dynamic graphics
- Store at least 500 book pages, or several hours of audio
- High bandwidth communication
- Connection to wireless global network
- Rechargeable batteries
- Cost under \$500



Mobile Learning sans Technology?

- **A book or a phone**
 - Study when you want
 - Study where you want - can be used everywhere, doesn't require a table, can be used in bed...
 - Ownership - 'everyone' owns them
 - Always on - no startup time required
 - Discreet - socially acceptable to use in public environments
 - Don't need to plug it in



Mobile Learning avec Technology?

- **Phones, not books**
 - Ubiquity - everyone always carries their mobile phones
 - Video and audio recording and playback
 - High-speed internet connection (content availability)
 - GPS
 - Searching capabilities
 - Communication



Evolution of Mobile Phones



Is It a Bird, Is It a Plane...?

- **A compendium of devices**
 - Web browser
 - Camera
 - Calendar/diary / address book
 - Generic and specialist application platform
 - Media player / recorder / editor
 - Navigation device
 - Oh yes, it's also a phone!



All These Things and More

- **Greater than the sum of its parts**



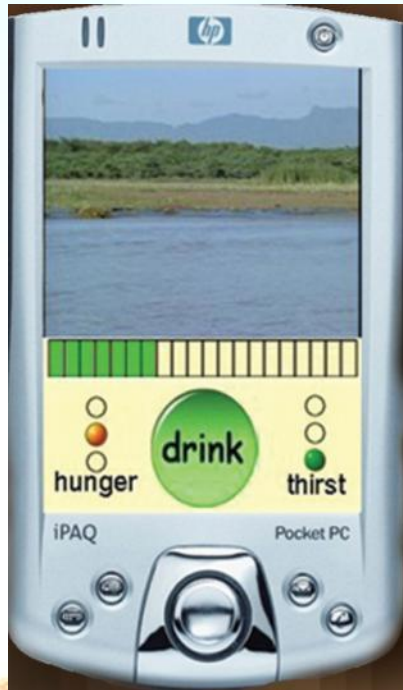
Wireless Coyote

- How far have we got since 1991?



Savannah

- An alternate reality



Ambient Wood

- **Mobility of the learner, embedded devices**



FutureLab MediaScape

Create-A-Scape

A mediascape is made up of sounds and images placed outside in your local area.

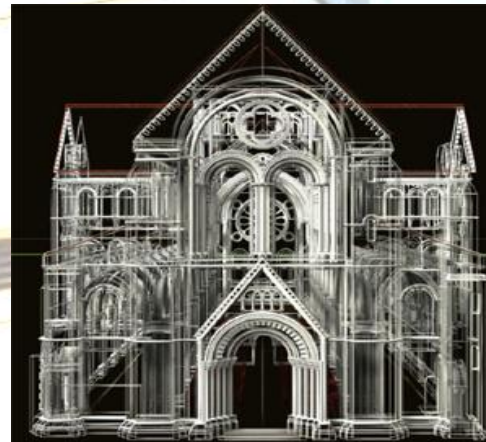


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MediaScapes



Augmented Reality

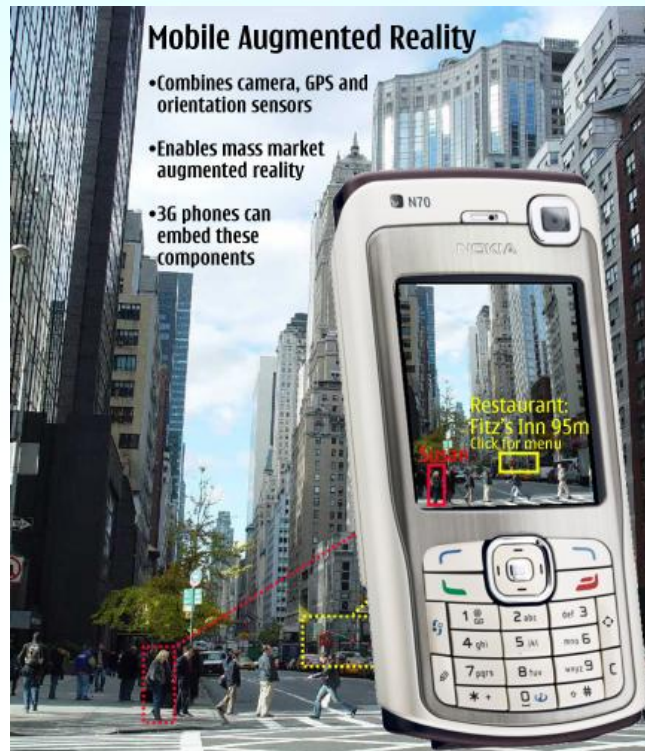


» From Cistercian Chapels project, London Metropolitan University



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Nokia MARA



Mobile Augmented Reality

- Combines camera, GPS and orientation sensors
- Enables mass market augmented reality
- 3G phones can embed these components

Find Friends

Highlight friends' locations on screen, link to profiles

Find Places

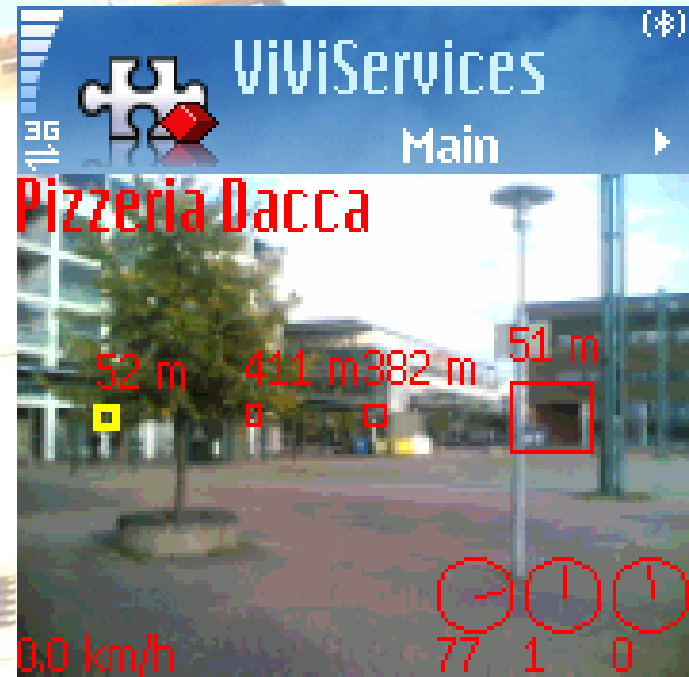
Search for locations, add weblinks to places: Real World Web!

Find Your Way

See your path right in front of you, or guide others

Markus Kähäri, David Murphy
(NRC/SWA/DIAS/AIA) <http://research.nokia.com/projects/mara>

NOKIA



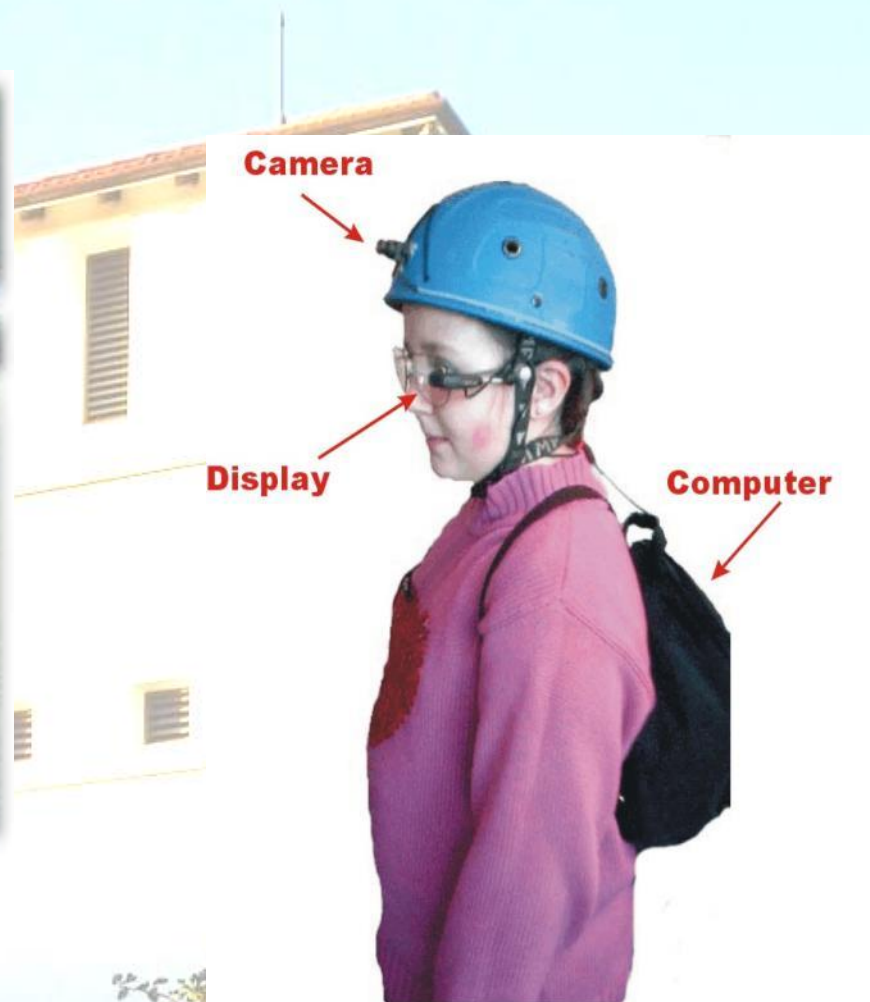
Options

Exit



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Augmented Reality Reality



Haptic phone

- **Synaptics Fuse, the first squeezable haptic phone**



Haptic interface



Final Thoughts

- **Functionality of mobile devices has multiplied**
- **Modes of interaction have not, to the same extent**
- **As they do, new opportunities for interaction on the move will provide new learning experiences**



SlideShare Sources

- **Judy Brown**
 - **Mobile Learning 101**
- **Mike Sharples**
 - **A Short History of Mobile Learning**
- **Björn Hedin**
 - **Mobile learning - learning anywhere, anytime(?)**
- **John Cook**
 - **Mobile Learning Group**

