

Nokia Research

Sharpening Innovation to Build the Future

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Four Research Focus Areas for NRC

In Order to Bridge the Now to the Next



Rich Context Modeling

New User Interface

Rich Context Modeling

Meet the needs of individuals on their terms.

New User Interface

Interact joyfully and intuitively through technology.

Cognitive Radio

Liberate spectrum to expand markets and enable large-scale sensing.

High Performance Mobile Platforms

Superior mobile platform improving performance and power ratio.



Cognitive Radio

High Performance Mobile Platforms

Open Innovation at Nokia

Engaging the World's Premiere Institutions

- Three years of actively exploring open innovation
- Selective deep collaborations with world-leading institutions
 - China – Beijing
 - Finland – Helsinki & Tampere
 - Switzerland – Lausanne
 - UK – Cambridge
 - USA – Cambridge, MA & Palo Alto, CA
- The industry compels a “Demo or Die” philosophy
- Building global test beds to learn from larger and wider audiences



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Mobile Devices Sense Your Environment

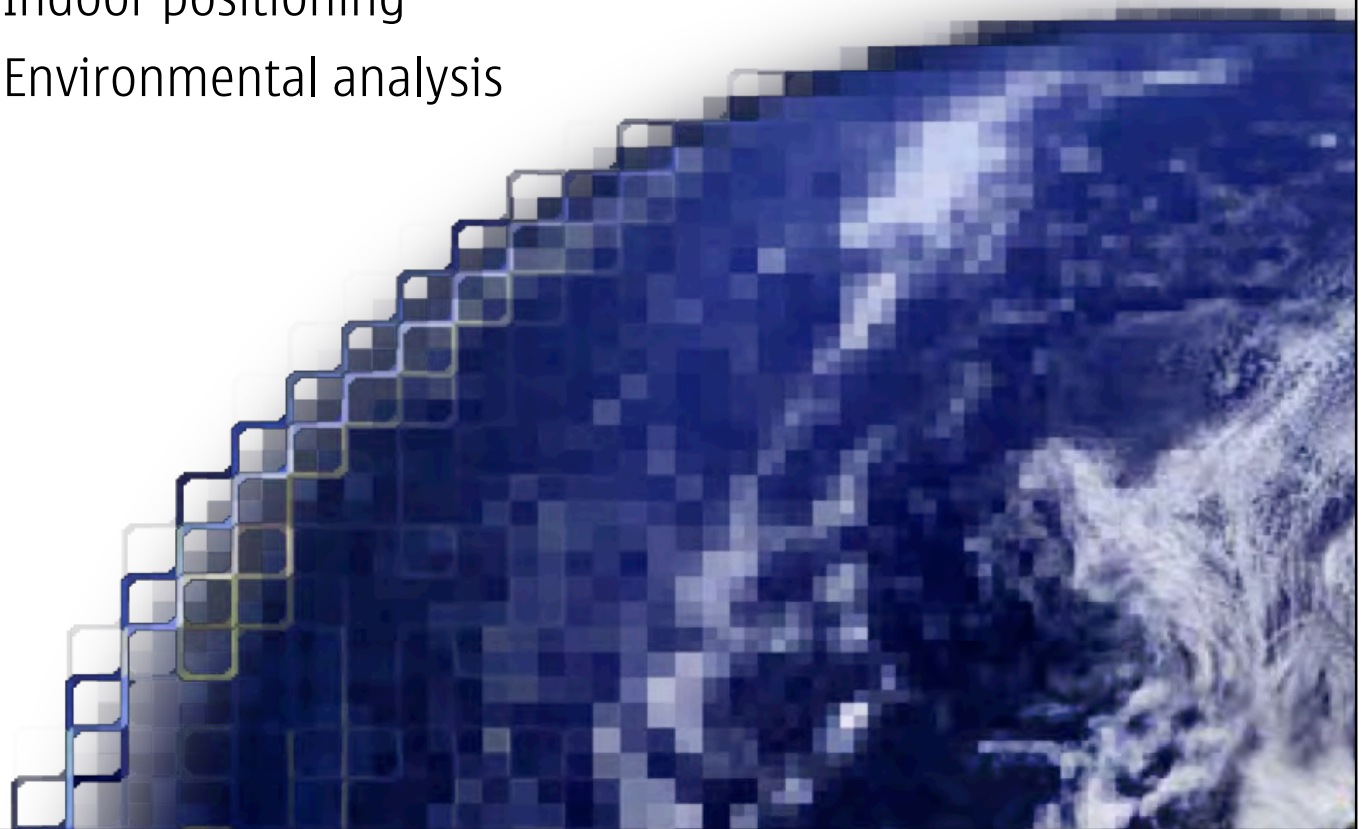
Fusing the Physical & Digital Worlds

Today...

- GPS
- Cameras
- Accelerometers
- Light sensors
- Bluetooth
- Microphones
- Wi-Fi
- Cell triangulation

Incoming...

- Near Field Communication
- Indoor positioning
- Environmental analysis



New User Experiences

Liberate data from application silos based on user behavior



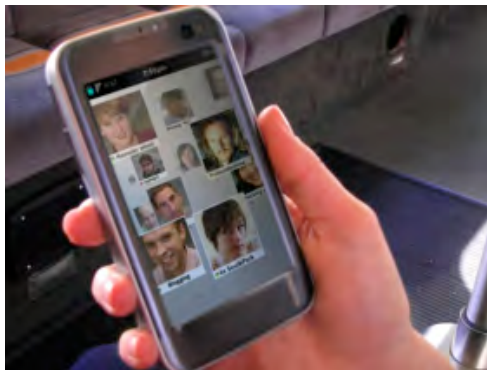
Dynamic tiles



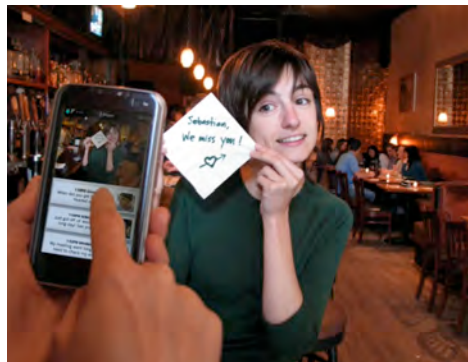
Filmstrip views of data



Content streams



People as the set point
(shake & wake address book)



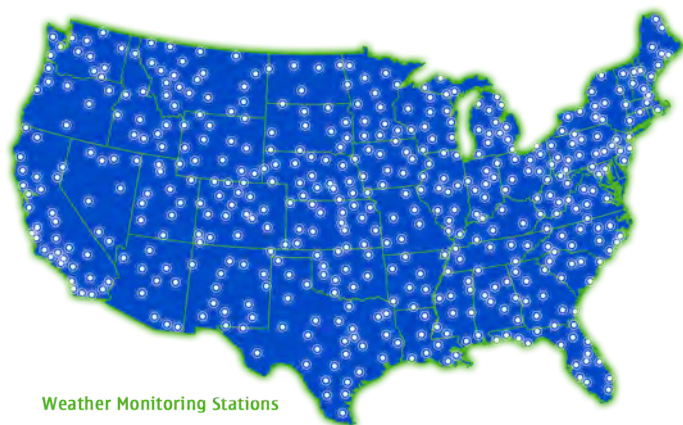
Lenses



Top-down is a valuable
interaction model

Wild Possibilities in a Sensor-Filled World

- Tracking of influenza outbreaks through personal health monitoring in populations
- Real-time weather monitoring across 100's of millions of users
- Citizen journalism during major events, such as when earthquakes strike
- Up to the second crowd flows in busy locations like stadiums



Morph

A Vision of the Deep Future

- Result of an invitation from MoMA
- Product of nanoscience work between NRC and Univ. of Cambridge, UK
- A highly personal device based upon sensors, services, customizability
 - All real work going on in our labs
- Captured the imagination of millions
 - Millions of views on YouTube
- Demonstrated the public hunger for daring visions



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Connecting People