

# Panel: Is Ubiquitous Computing the Technology of the Future, or Just Hype?

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# Technology View

- Computers **everywhere** – embedded into fridges, washing machines, door locks, cars, furniture, people  
→ **intelligent environment**
- **Mobile** portable computing devices
- **Wireless** communication – seamless mobile/fixed
- **Smart Dust** – autonomous sensing and communication in a cubic millimeter – “dust motes”
  - Intelligent paper, paint, glass .....
- Smart garments or injectable sensors for people monitoring



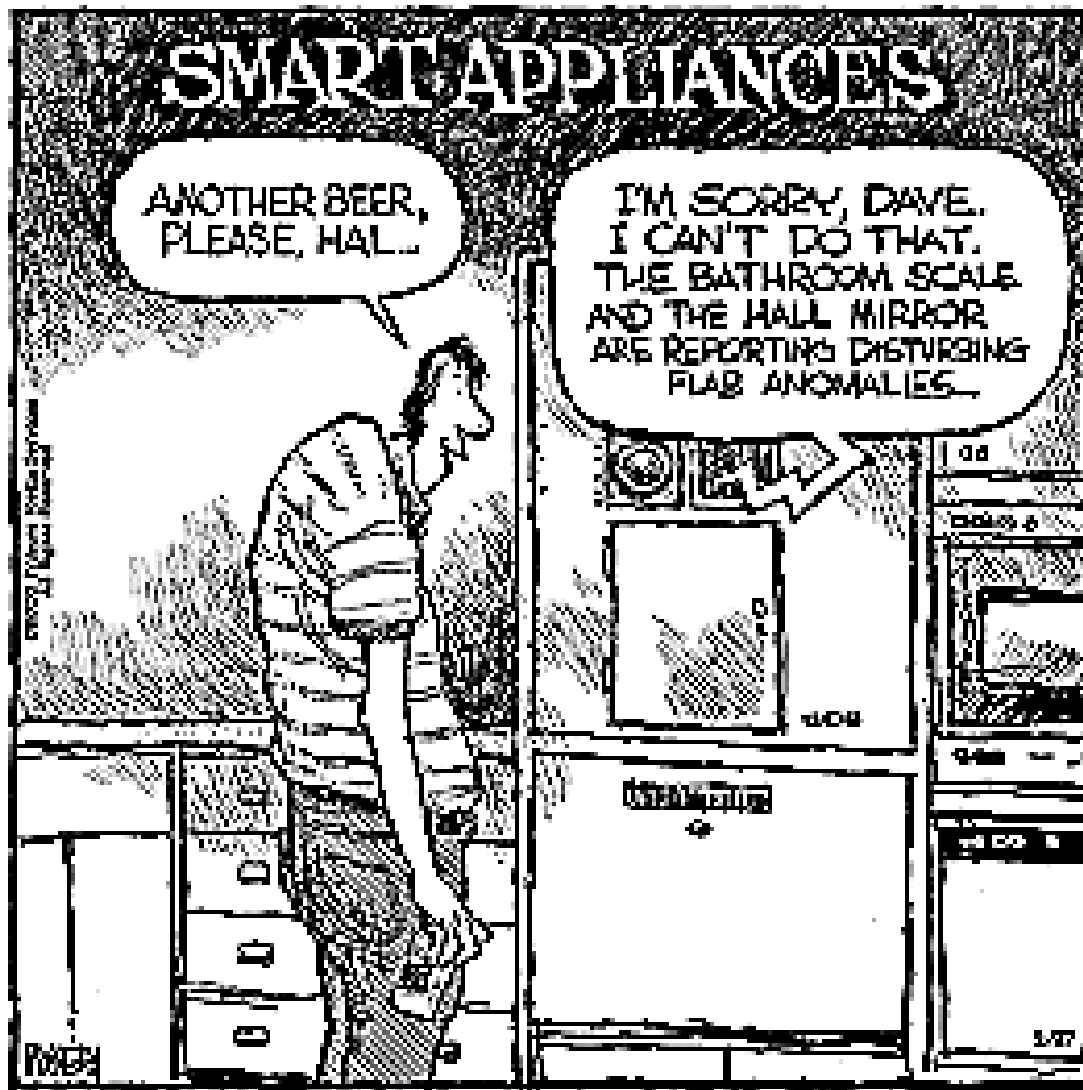


# User View

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- **Invisible** – implicit interaction with your environment
- Augmenting human abilities in context of tasks
- > 100K computers per person!
- **Ubiquitous computing**  
= mobile computing + intelligent environment

# Intelligent Environment?



# Problems 1

- Connectivity is not seamless – wired LAN, wireless LAN, Bluetooth, GSM, GPRS .....
- Need very low power device – no battery or mains
- Difficult to determine human activity eg walking or driving down street, running for bus, in meeting
- Trust, Privacy and Security:  
Tracking movement & location  
Wireless communication is easily monitored  
Lost communicator which includes, passport, keys, medical history .....



# Problems 2

- Human interaction – small screen, limited input devices
  - Business model for funding intelligent environment
  - Management nightmare – vast numbers of computers to configure, hackers & virus paradise
- Autonomic** – self-organising, self-healing, adaptive management is needed

