

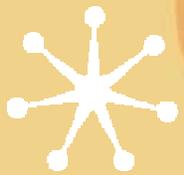
# **Kiosks**

## **and more kiosks**



# Intelligent Environments

- Pervasive computing deals with:
  - human-centric input modalities
  - hand-held devices
  - intelligent environments
- A small aspect of intelligent environments is a kiosk
  - commercial -- very big market
  - academic -- very few projects





# What is a “kiosk”?

A stall set up in a public place where one can obtain information, e.g. tourist information. The information may be provided by a human or by a computer. In the latter case, the data may be stored locally (e.g. on [CD-ROM](#)) or accessed via a network using some kind of distributed information retrieval system such as [Gopher](#) or [World-Wide Web](#).





# What is a “Kiosk”

**Word History:** The word *kiosk* was originally taken into English from Turkish, in which its source *kök* meant “pavilion.” The open structures referred to by the Turkish word were used as summerhouses in Turkey and Persia. The first recorded use of *kiosk* in English (1625) refers to these Middle Eastern pavilions, which Europeans imitated in their own gardens and parks. In France and Belgium, where the Turkish word had also been borrowed, their word *kiosque* was applied to something lower on the scale, structures resembling these pavilions but used as places to sell newspapers or as bandstands. England borrowed this lowly structure from France and reborrowed the word, which is first recorded in 1865 with reference to a place where newspapers are sold.





# Commercial

- Huge market in Kiosks (in \$billions)
  - Point of Sales (POS), without human salesperson
- Informational display
  - subtle (and not subtle) form of advertisement
  - replace human agent, e.g. guidance
- Whole focus on current customer interaction
  - Real focus is on reducing cost of doing business





# Usual Kiosk Features

- Users should
  - not be allowed to exit browser
  - have no access to os or other apps
  - cannot change settings
  - privacy must be protected
- After period of inactivity, kiosk resets
- A different mode of web browser
  - Mozilla, Opera, Explorer, Safari all have Kiosk modes
- Sounds like an information appliance





# Academic

- Emphasis is on richer interaction
- Collaboration is the key concept
  - between people
  - between objects (physical and virtual)
  - between places
- Let's look at some examples





# IBM BlueBoard





# BlueBoard

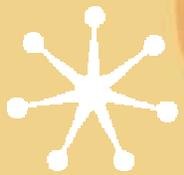
- Details
  - Year began: 2000
  - 1.3 Meter Plasma Display (touchscreen)
  - Badge reader (RFID)
  - No keyboard or mouse
  - Laptop PC hidden
  - Thin client software
- Fast Personal Use
  - walk up, check calendar, walk away with 5 sec
- Small Group Collaborative Use





# Personal vs Communal Uses

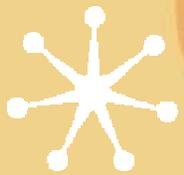
- P-con: image of person representing that person's content
- Personalize by linking content beforehand (at some web site)
- Share info:
  - drag-n-drop info to p-con
  - email gets sent when badge-out
- <http://www.richgossweiler.com/projects/BlueBoard/index.html>





# Community Wall

- Ambient display give sense of community
- Work teams more distributed
- Content Selection
  - chose which 10 items to present
  - re-evaluate every 10 min
- Backstage rules
  - relevance of item at specific time
- User Interaction
  - touching item increases its space and value
  - touching item can cause action (email)



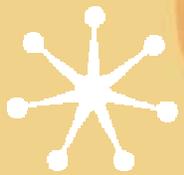
# Dynamic Profile based on Context Sensing





# Notification Collage

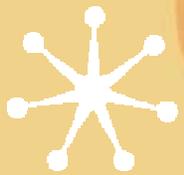
- Motivation
  - Aware of many things: people, events, stuff
  - Too much info in our environment
  - Info is static and dynamic
  - Relevance depends on time
  - Sometimes act on info when aware of it
  - Information awareness is a result of gossiping
- People post stuff by dragging it to Collage
- Potential extension:
  - only my friends see stuff I look at
  - their friends will see it, if they look at it also





# iCom (MIT Media Lab)

- A multipoint awareness and communication portal for connecting remote social spaces





# iCom

- Open 24 hours a day
- Background mode is low bandwidth
- Can transform into foreground, tele-meetings
- Screen projections sync'd at each site
  - nothing is recorded
- Bulletin board for messages
  - ordered by popularity and age

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# Dummbö

- Normal white board; no special training
- Everything captured (audio & writing)
  - SMARTBoard is commercial product
  - Detects which pen is picked up and writing





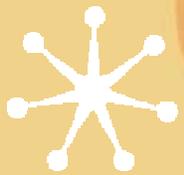
# Dummbro (Georgia Tech)



# A Wallable Macro Device (CRL -- DEC, COMPAQ, HP)



- Message Panel (on the wall)
  - audio/visual messages to visitors or members
  - an elaborate info kiosk
    - presented here for the cool technology (scary faces)



# Media Spaces (Xerox 1987)

