Design:
Designing for Spatial Expansion
Mobile and Ubiquitous Games
ICS 163
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Content adapted from:
Pervasive Games: Theory and Design
Experiences on the Boundary between Life and Play
BotFighters

- Location-based mobile game
- Pervasive Game
- Technologies
  - Cell-tower based localization
  - Text Messages
  - Web Browser Interface
- Game Play...
BotFighters

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Game Play…
Designing Spatial Expansion

• Playing in Public
  • Public space is socially arranged
  • Sometimes laws enforce social arrangements
    • e.g., bicycling on the sidewalk
  • Sometimes convention determines norms
    • No dancing in crosswalks
Designing Spatial Expansion

- Abstract Tours Berlin
- “parody of the idea of a sightseeing tour”
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Designing Spatial Expansion

• Sightseeing and Local History
  • However, games make a great mechanism for sightseeing
    • for new visitors
    • for residents
  • Interactions with non-fiction space
    • Secret store discounts
    • Visiting points of activism
      • Homelessness
Designing Spatial Expansion

- Challenge with scaling
  - Is your game site-specific?
  - Is your game location-free?
    - Mobbles
  - Is your game site-adaptable?
    - Murder mystery parties
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Designing Spatial Expansion

- Playing in Prepared Locations
  - Support more elaborate game play
  - Special surveillance equipment
  - Special technical installations
  - Detailed knowledge of geography and terrain
  - Long-term engagement
Designing Spatial Expansion

- Urban, Suburban and Rural
  - Urban areas are more accustomed to diverse people and uses of public space
  - Suburban spaces are more controlled, but challenged by sub-cultures like skateboarding

curbcutcity.com
Designing Spatial Expansion

- Playing on the Move

- “Having a large or unlimited area for gaming means that players have to move and are sometimes even required to travel long distances. This is the exact opposite of the classic idea of portable games, which is to fill idle moments of daily life with interesting game content. Spatially expanded pervasive games can use the opposite philosophy: Instead of making travel less bothersome and waiting less boring, many pervasive games require players to do additional traveling or waiting in order to succeed.”
Designing Spatial Expansion

- Traffic and Transportation
  - Physical movement takes time
  - Learning to move efficiently is often part of a game
  - “Players caught up in the thrill of the moment take more risks than they would in their ordinary lives”
  - Designs that divert players attention [while driving] are even more risky
Designing Spatial Expansion

• Global Gaming
  • I Love Bees
  • Fun to coordinate globally
  • Expensive/Exclusionary if travel is required
  • Difficult to get a community built
• Allowing a global audience for local world-wide events takes some of the magic away
Designing Spatial Expansion

- Urban Exploration
- Dangerous
- Possibly illegal
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- Exergames

![Image of Wii Fit Plus website with a person doing yoga on a Wii Balance Board.](image-url)
Designing Spatial Expansion

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• Cyberspace
• Repurposing games
• Scavenger hunts in WOW
• “Players of Sanningen om Marika appropriated the playgrounds of another game, which led to a form of virtual social expansion as well.”
• Meet ups in online game space for secondary purposes
Designing Spatial Expansion

- Virtual Space and Mixed Reality
- Virtual Tour Guide example
- Mapping Audio to the real world
- Using real-world events to affect in game behavior
  - Real world weather affect in game ballistics