

# Design:

## Designing for Spatial Expansion

Mobile and Ubiquitous Games

ICS 163

Donald J. Patterson

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...



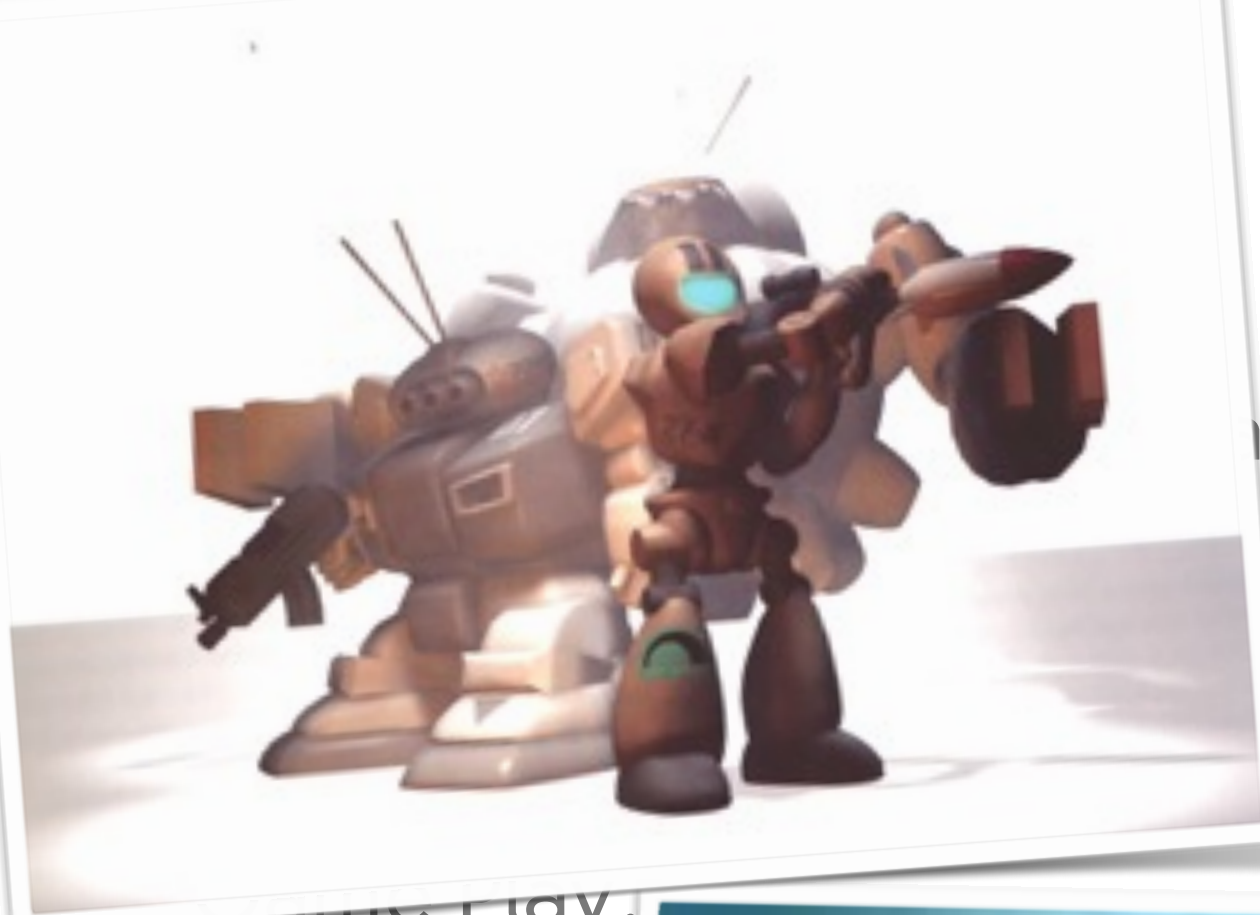
# BotFighters

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



# BotFighters

- Location-based game



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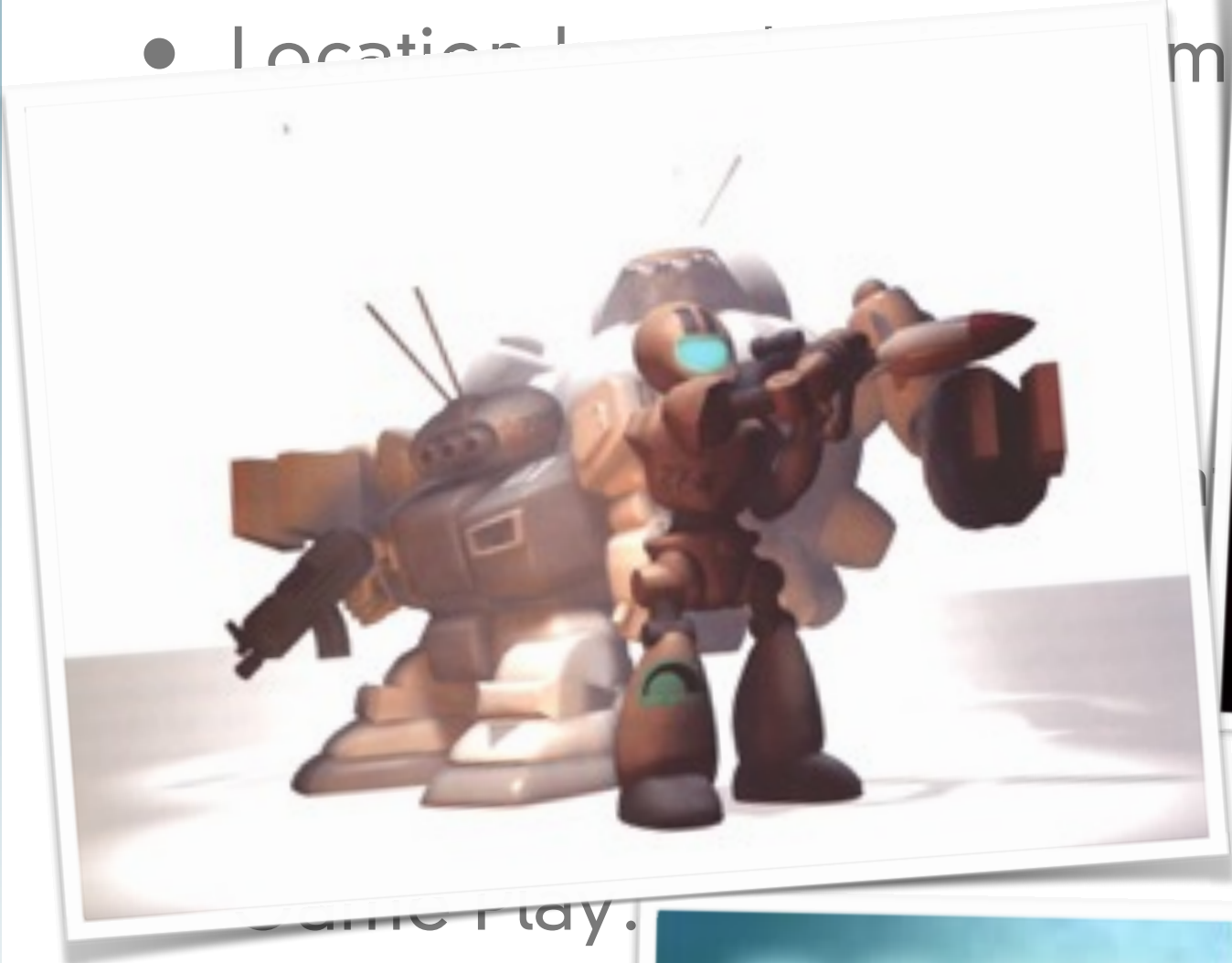
Game play.





# BotFighters

- Location-based game play.





# BotFighters

- Location-based mobile



# BotFighters





# BotFighters





# BotFighters



# 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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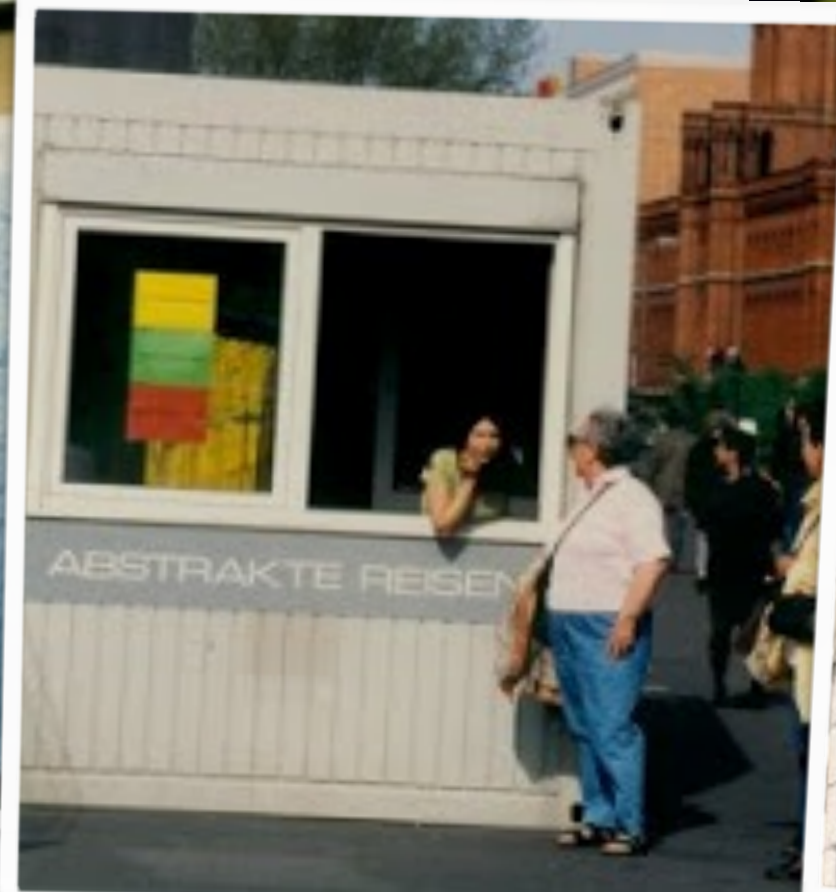
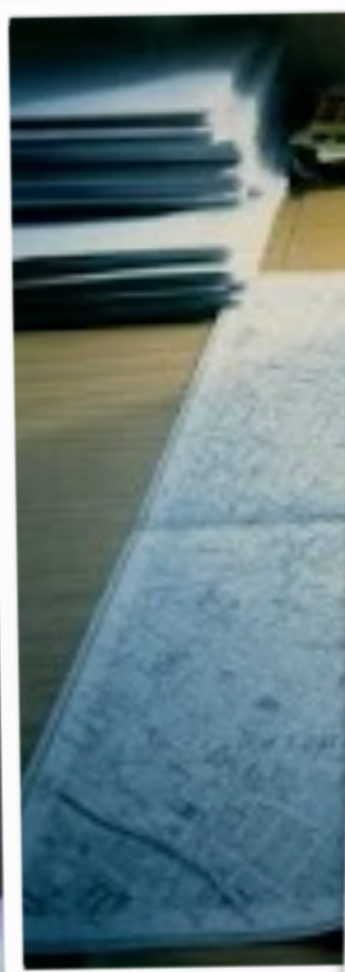
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# Designing Spatial Expansion

- Abstract Tours Berlin
- “parody of the idea of a sightseeing



# 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



## 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

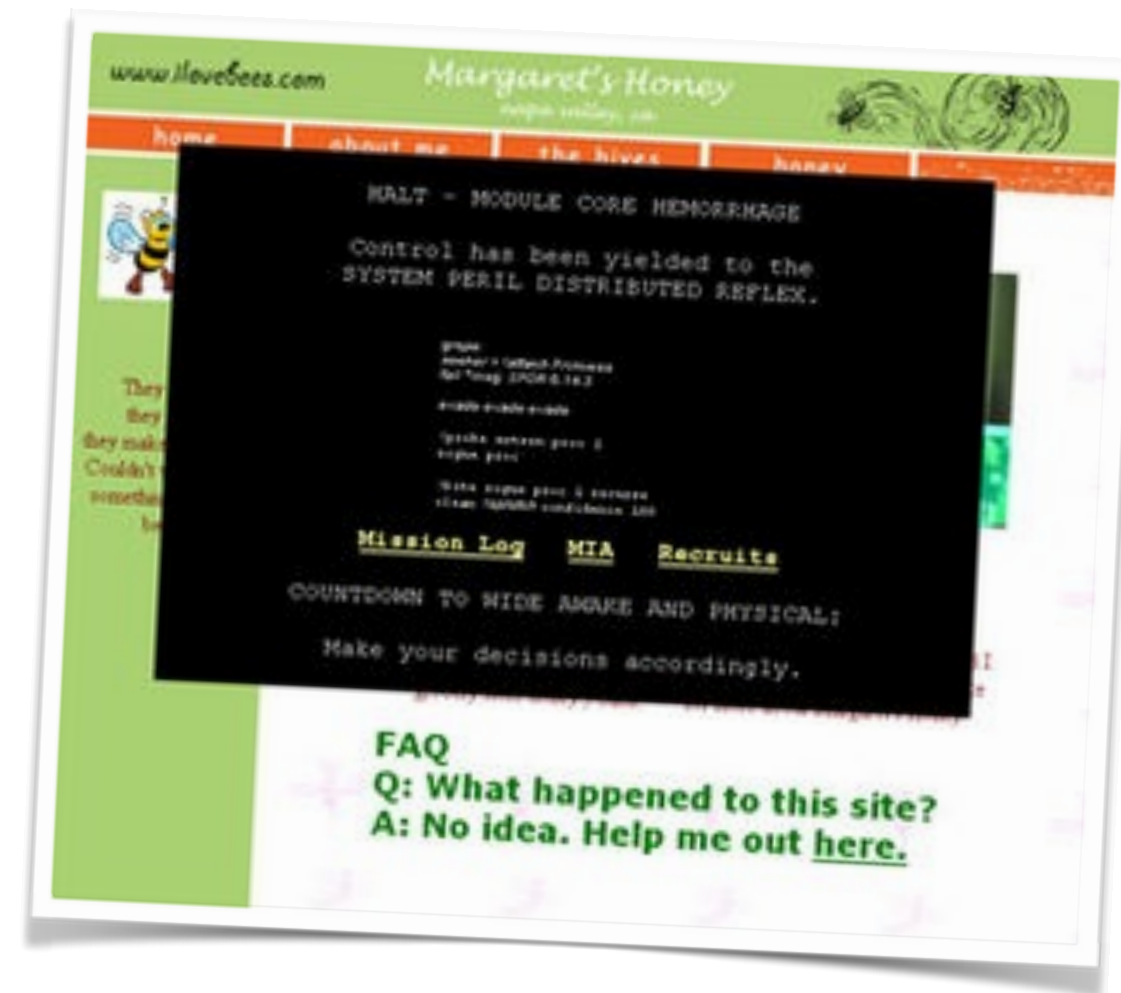
- Traffic and Transportation
  - Physical movement takes time
  - Learning to move efficiently is often part of a game
  - “Players caught up in the thrill of the moment take more risks than they would in their ordinary lives”
  - Designs that divert players attention [while driving] are even more risky





# 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



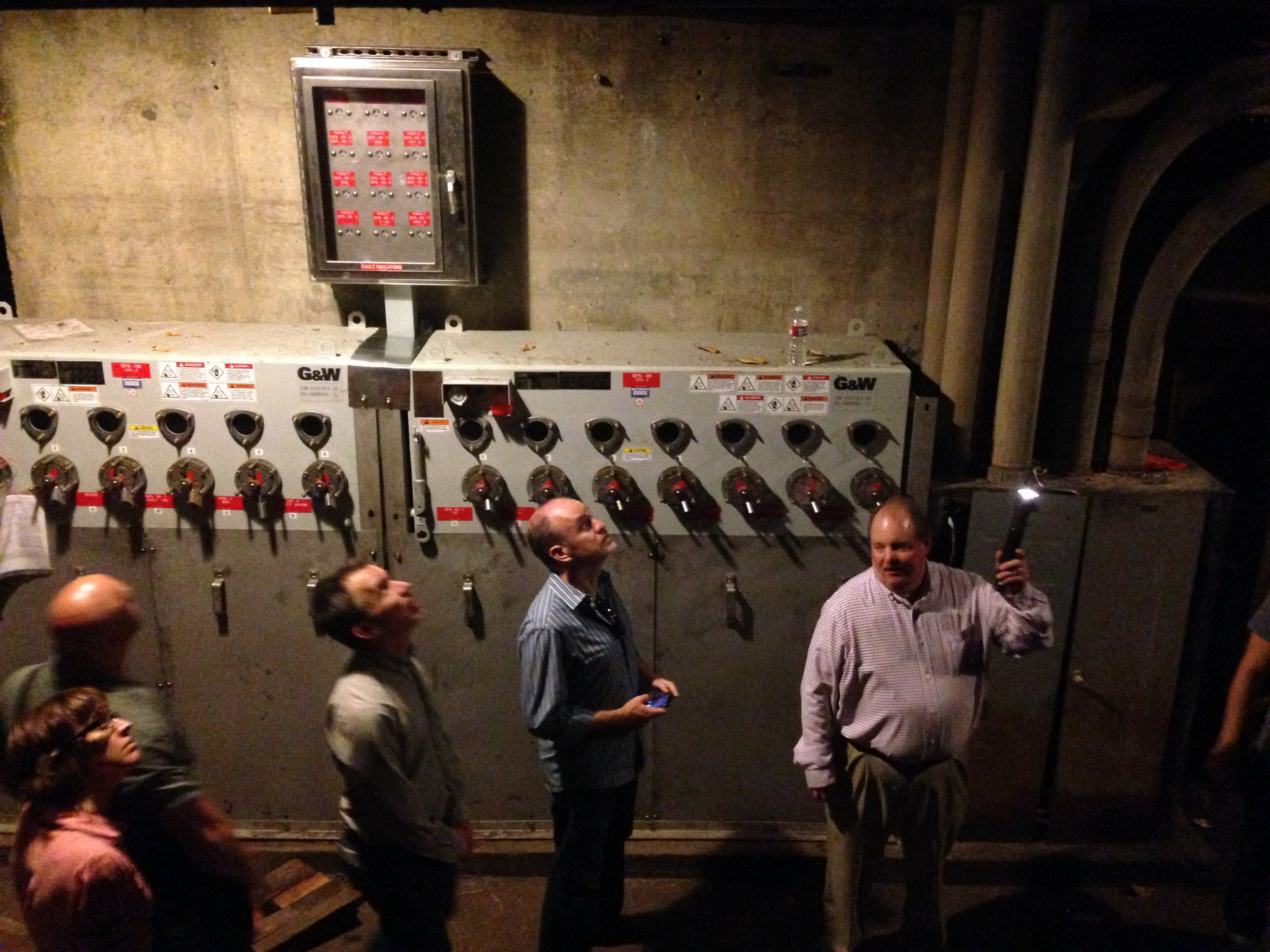




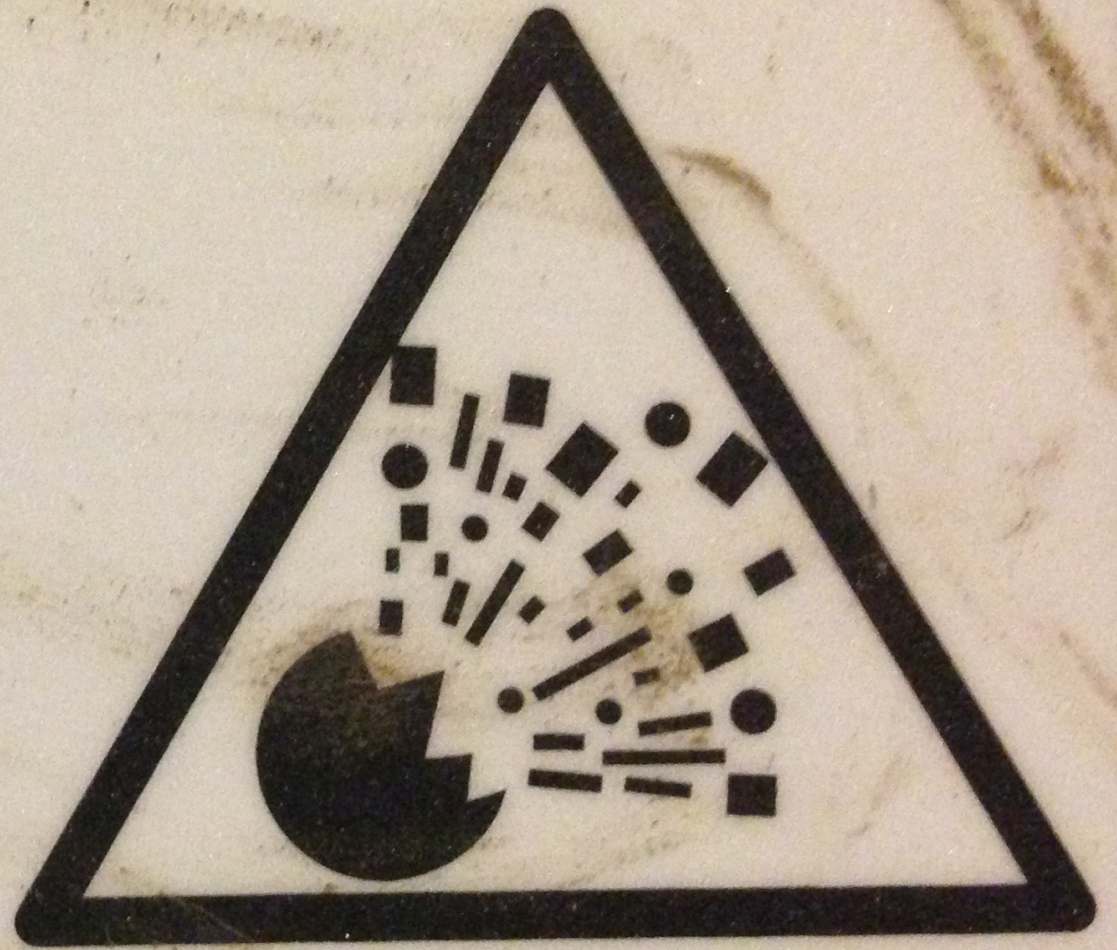


















# Designing Spatial Expansion

- Exergames



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# Designing Spatial Expansion

- Exergames

The screenshot displays the website for 'Zombies, Run! 3'. At the top, there are navigation links for 'Shop', 'Blog', and 'Support', along with 'Login' and 'Register' options. The main banner features the title 'ZOMBIES, RUN! 3' with a silhouette of a runner and zombies against a sunset background. Below the banner, a central text block reads 'Get Fit. Escape Zombies. Become a Hero.' and describes the game as an epic adventure for 800,000+ runners. To the left, a smartphone displays the app's interface, showing a 'Home' screen with options like 'Back Once Again' and 'Resume', and a notification about a 'Zombie attack!'. Below the phone are 'iOS' and 'Android' download buttons. To the right, two product cards are shown: 'Zombies, Run! 3 The Epic Adventure - \$3.99' and '5k Training Ideal For Beginners - \$1.99'. Both cards include 'Available on the App Store' and 'Available on Google play' badges. The 'Zombies, Run! 3' card lists features such as 'Up to 160+ gripping missions', 'Zombie Chase interval training', 'Run with your own music', 'Play outside or at the gym', and 'Build up your own base'. The '5k Training' card lists features like '8 weeks of structured training', 'Devised by running experts', 'Audio instructions at every step', 'Training mixed in with gripping story', and 'Workout to your own music'. At the bottom, a quote from Lifehacker states: 'Zombies, Run! is a great way to spend a few easy runs. With brief periods of terrified sprinting.' Below the quote are logos for Lifehacker, Runners World, WIRED, and BBC NEWS.

Shop Blog Support Login Register

## ZOMBIES, RUN! 3

**Get Fit. Escape Zombies. Become a Hero.**

Join 800,000+ runners on an epic adventure that motivates you to run further and faster than ever before - whether you're a beginner or an expert!

**Zombies, Run! 3**  
The Epic Adventure - \$3.99

Available on the App Store Available on Google play

- Up to 160+ gripping missions
- "Zombie Chase" interval training
- Run with your own music
- Play outside or at the gym
- Build up your own base

**5k Training**  
Ideal For Beginners - \$1.99

Available on the App Store Available on Google play

- 8 weeks of structured training
- Devised by running experts
- Audio instructions at every step
- Training mixed in with gripping story
- Workout to your own music

WALKING START WORKOUT

"Zombies, Run! is a great way to spend a few easy runs. With brief periods of terrified sprinting."

lifehacker RUNNERS WORLD WIRED BBC NEWS



# Designing Spatial Expansion

- Exergames



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The Epic Adventure - \$3.99

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1 WALKING

START WORKOUT

iOS Android

"Zombies, Run! is a great way to spend a few easy runs. With brief periods of terrified sprinting."

lifehacker RUNNERS WORLD WIRED BBC NEWS



# Designing Spatial Expansion

- 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

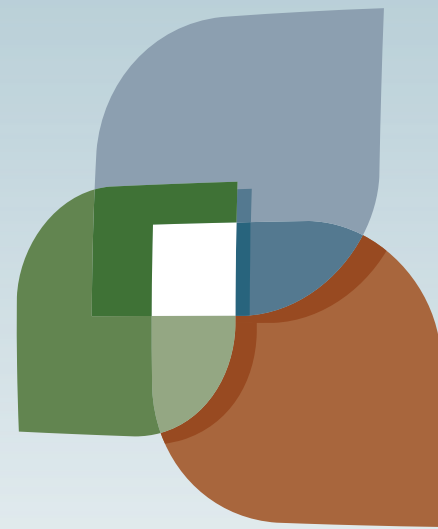


# Designing Spatial Expansion

- 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







L U C I

