Design:
Designing for Temporal 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
• What does the word temporal imply?
Designing for Temporal Expansion

- Styles of Temporal Expansion
  - Ordinary life and temporally expanded game play overlap and inform each other

- Attention shifts between game and reality rapidly

- Defies the idea of a “play session”
Designing for Temporal Expansion

- Styles of Temporal Expansion
  - Instead of “play session”
    - active play
    - peripheral play
    - passive play
  - Not clear distinctions
  - Resists the terms
    - full play
    - not playing
Styles of Temporal Expansion

• Dormant Games
  • played passively
  • played peripherally
  • active play is forced by game actions
    • being attacked by another player
    • trigger (what could trigger a game action?)
  • active play is initiated by players
    • “attacking” while other players are dormant is a strategy
Styles of Temporal Expansion

- Dormant Games
  - non-negotiable
  - constant peripheral awareness
Styles of Temporal Expansion

- Dormant Games
  - played passively
  - played peripherally
  - active play is forced by game actions
- for example: Tamagotchi
Styles of Temporal Expansion

- Dormant Games
- Tamagotchi problems
  - school disruption
  - babysitting
Styles of Temporal Expansion

• Ambient Games
  • Opposite of dormant game
  • Play is only initiated by the player
  • Compare to ambient music
    • easily backgrounded
  • Example Mystery on Fifth Avenue
  • Example Fantasy Sports
    • a kind of sports betting
    • you are a team manager
    • can be completely ambient
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Arrival - Hemiola
Styles of Temporal Expansion

- Ambient Games
- Fantasy Sports

- 1 point for 25 passing yards
- 1 point for 10 rushing yards
- 1 point for 10 receiving yards
- 6 points for a touchdown
- 6 points for a passing touchdown
- -2 points for every interception thrown or fumble lost
- 1 point for each extra point made
- 3 points for each 0-39 yard field goal, 4 points for each 40-49 yard field goal, and 5 points for each 50+ yard field goal
- 2 points per turnover gained by defense
- 1 point per sack by the defense
- 2 points for a safety by defense
- 6 points for each touchdown scored by defense
- 2 points for each blocked kick
Styles of Temporal Expansion

- Asynchronous Games
  - Softer form of Dormant Games
  - Games proceed in turns
    - There is time to react
    - Text messages are a good medium for this
    - Turns can have maximum time limits
- Compare to chess
  - Casual chess
  - Professional chess
Styles of Temporal Expansion

- Temporally Seamless Games
  - Complete integration of ordinary life with game participation
  - players may not know they are playing
  - players may be asked to play a game as if it were real
  - LARP
  - expensive, cumbersome, taxing
  - the surprise of the integration is what makes this fun
Styles of Temporal Expansion

• Persistent Worlds
  • online worlds which change while you are not online
    • Second Life/Opensimulator
    • Minecraft

second life wiki  opensimulator wiki
Styles of Temporal Expansion

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Styles of Temporal Expansion

• Persistent Worlds
  • online worlds which change while you are not online
    • World of Warcraft - partial
  • contain the seeds of
    • temporal expansion
  • dormant games
Designing for Temporal Expansion

- Structuring the Game Duration
  - Temporally expanded games are competing with real life
  - Managing a game to accommodate this can be challenging
    - Games can have explicit phases
    - Players may or may not know about them
Structuring the Game Duration

- **Starting the Game**
  - The start of a pervasive game can make or break it
  - Careful attention is needed

- **Rabbit Holes**
  - Increasingly common
  - The Beast Example
  - The Game
  - Broken registrations
Structuring the Game Duration

- Tutorial Mode
  - just like online games, pervasive games can have tutorial rounds
  - Shelby’s Logan’s Run started with a fake kidnap scene
Structuring the Game Duration

- Change over Time
  - The rules can change over time
  - Can be part of the “phases”
  - Scoring systems can enforce this
    - at first find blue cars can earn points
    - later finding bluetooth beacons can earn points
  - Requires player adaptation
Structuring the Game Duration

- Late Arrivals and Early Leavers
  - Because of their integration with real life, players will inevitably come and go
  - Managing these players requires special planning
Designing for Temporal Expansion

- **Managing Stress**
-  
- **Apter**
  - Telic - serious
  - Paratelic - playful
Designing for Temporal Expansion

- Managing Stress
- Flow state - Csíkszentmihályi

[Diagram showing the relationship between level of challenge, level of skill, anxiety, and boredom. The diagram illustrates the concept of the flow state where the level of challenge and level of skill are balanced.]
Managing Stress

- **Contextual Adaptability**
  - The ability to adjust game play to real world conditions
- **Interruptability**
- **Externally invisible play**
- Can make the game boring
Managing Stress

• High Stakes and Social Obligations
  • High risk game situations cause social stress
    • A WOW quest that is timed during an important real-world event
  • Permanent character death
Managing Stress

- Interruptability
  - Allowing the game to be paused to manage stress
  - Games can allow this
  - Games can penalize this
  - “Safe zones”
Managing Stress

- Pace and Stress

- Rapid reaction time requirements increase stress
Managing Stress

- Information Overload
  - Sending many bits of information
    - email
    - text messages
  - Exacerbate real world stress
Designing for Temporal Expansion

• Summary

• Play testing games with temporal expansion can be hard
“The architectural designer Eric Clough embedded 18 clues in the Fifth Avenue apartment of the Klinsky-Sherry family, leading them on a scavenger hunt through the rooms of their home.”
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Photo by Fred Conrad for NY Times
Mystery on Fifth Avenue

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• “The hunt involved ciphers, riddles, poems and custom-built furniture with hidden drawers and panels. A book with a narrative about a mystery, hidden behind paneling in the front hall, offered clues.”

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“Behind the panels, large white letters laser-cut into teal blue acrylic spell out the words of a poem written years ago by Steven B. Klinsky, the apartment's owner, for his wife, Maureen Sherry, and their children.”
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“Decorative leather molding stamped with letters in a hallway can be popped out and wrapped around a rod removed from the foot of Ms. Sherry and Mr. Klinsky’s bed so that the letters on the coiled leather spell out a clue.”

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Photo by Fred Conrad for NY Times
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• How did “The Mystery on Fifth Avenue” create temporal expansion?