Today

• Video *Crayon Physics Deluxe*
• Demo, *Splitter* and *Irregular Game of Life*
• Prototype and work breakdown
• Emergence and finishing Rules
Crayon Physics Deluxe

http://www.crayonphysics.com/
Crayon Physics Deluxe
Splitter

http://www.king.com/game/splitter
Splitter
Irregular Game of Life

http://www.irregulargames.com/irregulargame-of-life/
Irregular Game of Life
Emergence
What these things have in common
Game prototype
Game prototype

- Due week 6 in section (2 weeks from now)
- Just as your game concept requires innovation in mechanics and/or setting, prototype shows core mechanics in setting
- Goal: Does your basic concept work?
- Requirement: In your public_html folder, Game Maker file and readme
Work breakdown
Work breakdown

• Due week 5 in section (next week!)
• How are you (already) moving from your concept to your prototype and complete game? Who does what, when?
• Goal: Setting realistic scope and plan
• Requirement: All tasks described, time estimate, completion date, team member
Emergence and Rules
Juul on Gameplay

• A result of the rules and player effort
• Small rule changes can significantly change gameplay (emergence)
• Player competence / repertoire determines what they can do
• Juul says “game design is about designing the rules so that actual strategies used by the players are enjoyable to execute.” p. 91
Choices and skills

- Meier on games as “a series of interesting choices” (not one best, not equally good, informed player choice)
- Aesthetics of puzzles, riddles
- Repertoire of approaches and skills, not all intellectual
- Game develops along with repertoire
Emergent challenges

• Orthogonal unit differentiation (strengths and weaknesses along different axes)

• Individual bases (goals, flags, etc)

• Choke points (geographic features that focus conflict)

• Tend to have many solutions (unlike progression challenges)
S & Z on Emergence

• Emergence closely related to complexity
• Types of systems: fixed, periodic, complex, and chaotic
• Can be many elements, or many potential conditions (rules of physics)
• Can be a few elements and few conditions, with the right rules (Game of Life)
Emergence

- Looking for the emergence of complex, unpredictable behavior
- Can be in the form of patterns
- Can be in the form of strategies
- Making things like physics engines the center of gameplay is a strategy for harnessing this — but designer can be surprised
Second-order design

- A game designer designs the rules of the system directly.
- The player experience is then designed *indirectly* through this process.
- Understanding systems as producers of experiences is a great challenge.
- Emergence is an important example.
Flow

Mihaly Csikszentmihalyi’s description of the pleasure (and problems) in challenges
These exceptional moments are what I have called "flow" experiences. The metaphor of flow is one that many people have used to describe the sense of effortless action they feel in moments that stand out as the best in their lives. Athletes refer to it as "being in the zone," religious mystics as being in "ecstasy," artists and musicians as "aesthetic rapture."

— Mihaly Csikszentmihalyi
Flow reconsidered

• An attractive theory — the best parts of gameplay clearly seem to be flow

• But this theory of “exceptional moments” probably overused/extended in discussing everyday gameplay

• Think of your own play experiences — some flow, but not first and always
Flow reconsidered

• “Here's all the motivation you'll ever want: get that action again, those last few bricks left and that eery lobbing interim as the ball floats about so you never know when it'll hit and you don't dare try placing a shot because you're more than happy just to hold on with your eyes glued to the ball.”

  — David Sudnow

• A valuable, partial concept
Juul’s summary of rules

- Above discussion (agree how to use them)
- Construct a state machine & a game tree
- Present a challenge, resulting in gameplay
- Learning experiences, enjoyable challenges
Short office hours today: 3:30–4pm