CS 325
Intro to Game Design

Spring 2014

George Mason University

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Personnel

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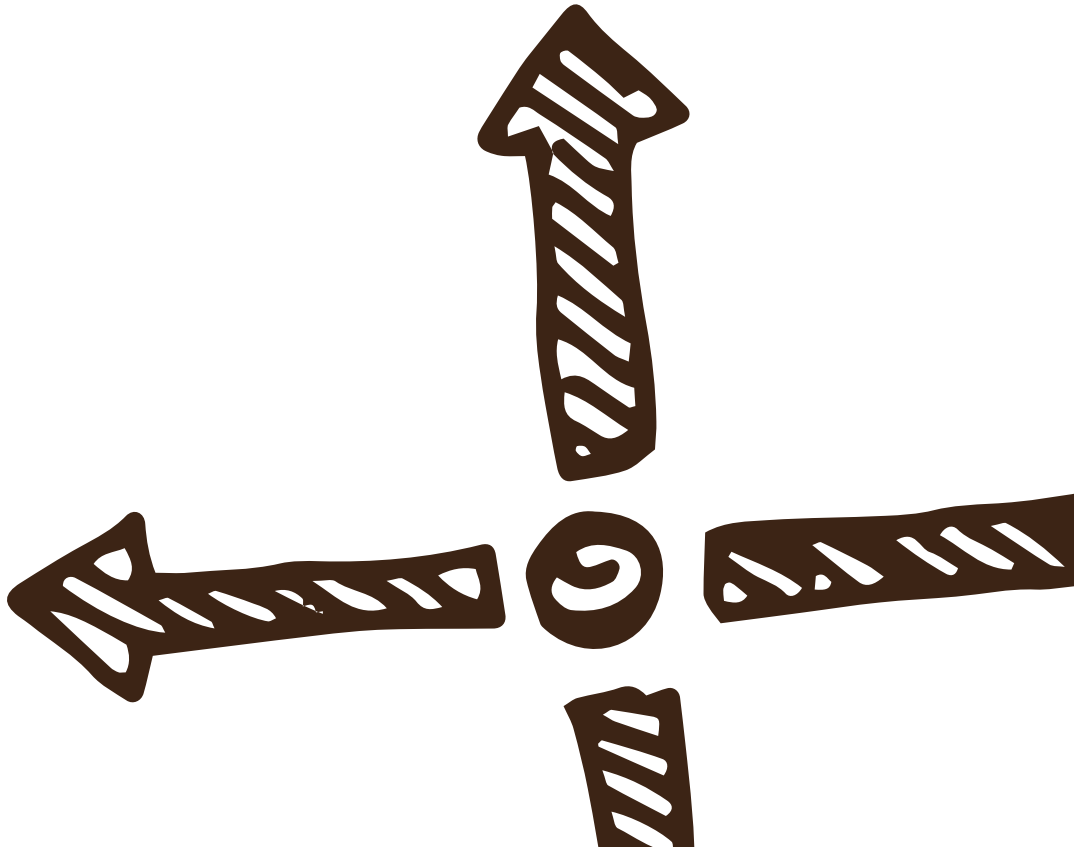
How was...

- Global Game Jam this weekend?
  - 5pm Friday – 5pm Sunday
  - http://globalgamejam.org/2014/jam-sites/george-mason-university



Tentative Schedule

Thurs Jan 23	Introduction	
Tues Jan 28	The Role of the Game Designer	Chapter 1
Thurs Jan 30	Javascript/Phaser, your game designs	
Tues Feb 4	The Structure of Games	Chapter 2
Thurs Feb 6	More Javascript/Phaser	
Tues Feb 11	Working with Formal Elements	Chapter 3
Thurs Feb 13	More Phaser	
Tues Feb 18	Working with Dramatic Elements	Chapter 4
Thurs Feb 20	More Phaser	
Tues Feb 25	Working with System Dynamics	Chapter 5
Thurs Feb 27	Conceptualization	Chapter 6
Tues March 4	Prototyping	Chapter 7
Thurs March 6	Digital Prototyping	Chapter 8
Tues March 11	Spring Break	
Thurs March 13	Spring Break	
Tues March 18	Mid-term review	
Thurs March 20	Mid-term exam	

Game Design Workshop

Part One:

Game Design Basics

Chapter 1:
The Role of the Game Designer

The Role of the Game Designer

- Game designer envisions how a game will work during play:
  - objectives, rules, procedures
  - dramatic premise
  - planning
- Like an architect to a building, like a screenwriter to a movie.
- What skills, talents are necessary? What is expected of you?
- **Playcentric** approach: iterative method based on player feedback

An Advocate for the Player

- Look through player's eyes.
- Don't get caught up in graphics, story, features at the expense of gameplay. Delegate.
- You start with a vision, but development process causes you to lose perspective.

Playtesters

- **Playtesters** are people who play your game and provide feedback on the experience.
- You learn a great deal by watching other people play your game.
- Not playtesting costs more than playtesting.
- Game design is not a predictable process due to human interaction. It's like *hosting a party*, or *giving birth and parenting*.

Exercise 1.1: Become a Tester

- Play a game and observe yourself. Write down what you are doing (behaviors and actions) and feeling. Repeat while watching a friend play the same game.

Passions and Skills: Communication

- You have to “sell” your game many times over.
- You have to listen (to playtesters and teammates) and compromise.

Passions and Skills: Teamwork

- Diverse set of skills on the team (AI, graphics, artists, writers, executives).
- They all speak different languages.

Passions and Skills: Process

- Games are fragile, interconnected systems.
- Playcentric approach (described shortly).

Exercise 1.2: D.O.A.

- Name a game you played that was “dead on arrival”; i.e. no fun to play.
- What don’t you like about it?
- What did the designers miss out on?
- How could the game be improved?

Passions and Skills: Inspiration

- Find inspiration from complex systems and find rules (challenges, structures, play).
- Games are everywhere (phones, maps, physics, finance).
- Look at the world in terms of underlying systems.
- Don’t look at other games for truly original ideas.
- What are you passionate about?

Exercise 1.3: Your Life as a Game

- List five areas of your life that could be games. Briefly describe a possible underlying game structure for each.

Passions and Skills: Becoming a Better Player

- To practice an art form, understand what makes it work.
  - music: musical tones, visual art: light, texture, composition, writer: read critically
- "If you want to be a game designer, you need to learn to play with the same conscious sensitivity to your own experience and critical analysis of the underlying system that these other arts demand."
- As you play games, analyze how their systems work.
- Keep a "game journal".

Exercise 1.4: Game Journal

- Start a game journal. Like a dream journal or diary, it can help you think through experiences you've had and also help you remember details long afterwards.
- Try and think deeply about your game experience; don't just review the game and talk about its features.
- Dig deeply into the choices you made, what you thought and felt about those choices, and the underlying game mechanics that support those choices.
- Go into detail. Why do the various game mechanics exist?
- Analyze meaningful moments of gameplay. Why does it stand out? What made the moment work, in terms of game mechanics and drama?

Passions and Skills: Creativity

- Everyone is creative in different ways.
  - Some people can list ideas without trying.
  - Some people focus on facets of one idea.
  - Some work with quiet.
  - Some work by bouncing ideas around a group.
  - Some tap into their dreams and fantasies (Will Wright).
  - Some look to childhood (Shigeru Miyamoto).
  - Strange combinations (“You Don’t Know Jack”).

Exercise 1.5: Your Childhood

- List ten games you played as a child.
  - For example: hide and seek, four square, tag
- What was compelling about each of these games?

A Playcentric Design Process

- Continually keeping the player experience in mind.
- Testing the gameplay with target players through every phase of development.

Setting Player Experience Goals

- **Player experience goals** are goals that the game designer sets for the type of experience that players will have during the game.
- Not features. Descriptions of interesting and unique situations you want players to find themselves in.
  - "players will have to cooperate to win, but the game will be structured so that they can never trust each other"
  - "players will feel a sense of happiness and playfulness rather than competitiveness"
  - "players will have the freedom to pursue the goals of the game in any order they choose"
- Focuses your design process.

Prototyping and Playtesting

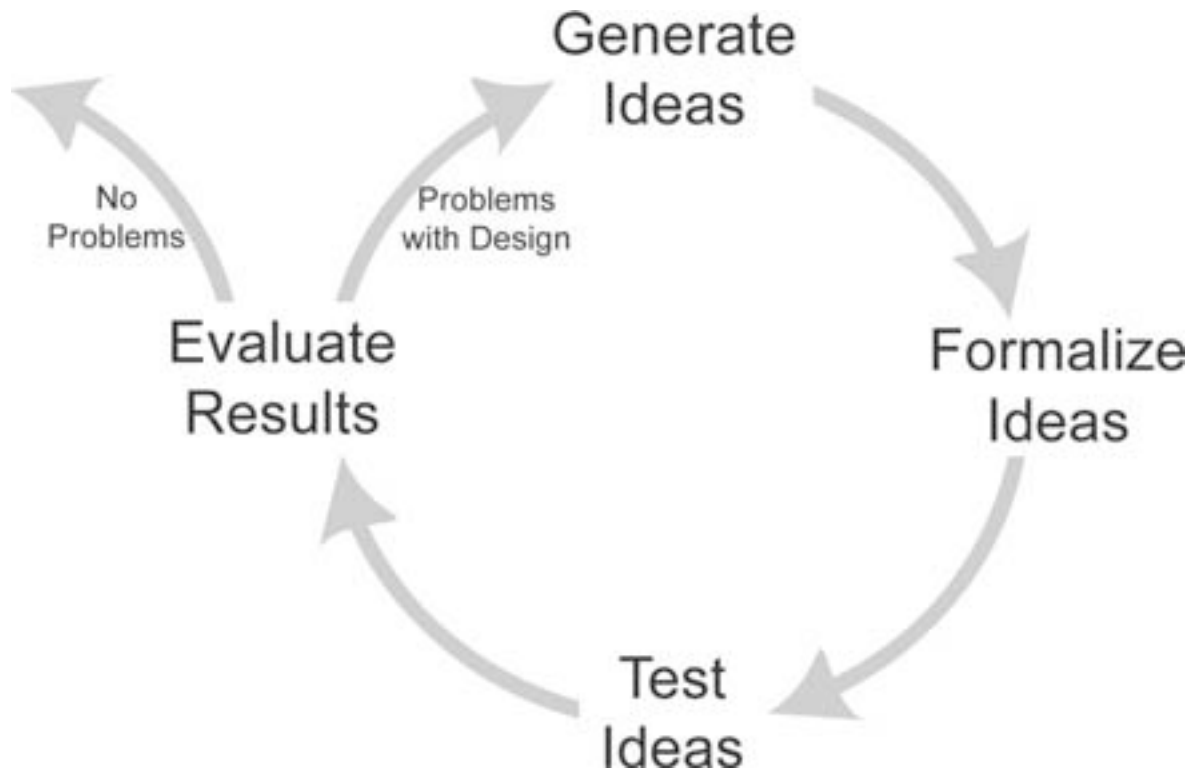
- Ideas should be prototyped and playtested early.
  - Immediately after brainstorming.
- Make a physical prototype of the core game mechanics.
  - Use paper and pen, index cards, dice, act it out, etc.
  - Play and perfect simple model of the game before investing any programmer or artist time.
  - You get instant feedback on the idea and whether you are hitting your player experience goals.

Prototyping and Playtesting

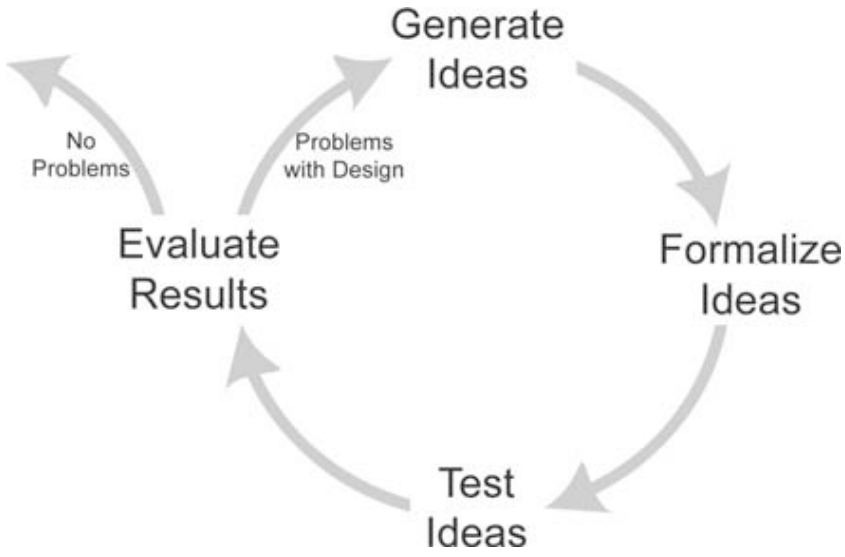
- Don’t begin production until you understand your player experience goals and **core mechanic** (central activity of your game)
- When production starts, it gets more and more difficult to change the design.
- *The more design and prototyping you do before production, the better the chances of avoiding mistakes.*

Iteration

- **Iteration** means that you design, test, and evaluate over and over again through the development of your game, improving each time until the player experience meets your criteria.



Iteration



1. Player experience goals are set.
2. An idea of system is conceived.
3. An idea or system is formalized (written down or prototyped).
4. An idea or system is tested against player experience goals (e.g. playtested)
5. Results are evaluated.
6. If results are negative and the idea or system is fundamentally flawed, go back to step one.
7. If results point to improvements, make them and test again.
8. If results point to success, you're done!

Iteration: Step 1: Brainstorming

1. Set player experience goals.
2. Come up with game concepts or mechanics.
3. Narrow down the list to three.
4. Write a short, one-page description of each idea (**treatment** or **concept document**).
5. Test your written concepts (possibly with visual mock-ups).

Iteration: Step 2: Physical Prototype

1. Create a playable prototype using pen and paper or craft materials.
2. Playtest (Chapters 7 and 9)
3. If the prototype is successful, write a three- to six-page **gameplay treatment** describing how the game works.

SiSSYFiGHT 2000

- ‘The very first version of SiSSYFiGHT was played with Post-It Notes around a conference table. I designed a handful of basic actions each player could take, and acting as the program, I “processed” the actions each turn and reported the results back to the players, keeping score on a piece of paper.’ – Eric Zimmerman

Iteration: Step 3: Presentation

- You make this to secure funds or introduce the game to your team.
- Demo artwork.
- Gameplay treatment.

Iteration: Step 4: Software Prototype(s)

1. Create one or several software prototypes for each aspect of the system (Chapter 8).
    - Hack it (temporary graphics, throwaway code)
2. Playtest
3. If the prototype is successful, move on to the **documentation** step.

Iteration: Step 5: Design Documentation

- Compile your notes and ideas for the “real” game into the **design document**, the document that outlines every aspect of the game and how it works.
- Nowadays, this often takes the form of a wiki for collaboration and so that it can grow and evolve during production.

Iteration: Step 6: Production

1. Work with your team to make sure the design is achievable and correctly described in the design doc.
2. Staff up and begin **production**, in which you create the real artwork and programming.

- Don't lose sight of the playcentric process. Test your artwork, gameplay, characters, etc. throughout.
  - The problems you find and changes you make should get smaller and smaller, because you solved the big problems during the prototyping phases.
- This is the time when most game designers actuall design their games, which leads to frustration and problems with time and money.

Iteration: Step 7: Quality Assurance

- Testing with an eye towards usability.
- Make sure your gameplay is solid before beginning this phase.

Prototypes and Playtesting in the Industry

- Make time for playtesting in any production schedule.
- In the game industry, designers often skip physical prototypes and jump from concept stage to design doc to implementation.
  - If you are making a small variation on an existing game, you can often get away with this.
  - This is changing.

Designing for Innovation

- There is a renaissance of interesting games broadening games' appeal.
- Innovation:
  - Designing games with unique play mechanics—thinking beyond existing genres of play
  - Appealing to new players—people who have different tastes and skills than hard-core gamers
  - Trying to solve difficult problems in game design such as:
    - The integration of story and gameplay
    - Deeper empathy for characters in games
    - Creating emotionally rich gameplay
    - Discovering the relationships between games and learning
  - Asking difficult questions about what games are, what they can be, and what their impact is on us individually and culturally

Designing for Innovation

- Playcentric approach gives you a solid process to explore gameplay innovation, "to *try ideas that might seem fundamentally unsound but could have within them the seed of a breakthrough game* and to craft them until they are playable."

Designers You Should Know

- Shigeru Miyamoto
- Will Wright
- Sid Meier
- Warren Spector
- Richard Garfield
- Peter Molyneux
- Gary Gygax
- Richard Garriott

Next Time

- **Analog**: Design a new (non-digital) game.
- **Digital**: Phaser.
- **Book (next week)**: Read Chapter 2.