Pre-production

Jaanus Jaggo
Previous lecture - Gameplay mechanics

- Game mechanics
- Mechanics / Dynamics / Aesthetics (MDA) framework
- Feedback loops
- Emergent gameplay
- Designing your game’s functional space
- Skills
Today’s topics - Pre-production

- Game development phases
- Prototyping
- Design document
- Minimal viable product
The Phases

The GDLC typically consists of six phases shown below:
Initiation phase

The developer decides what kind of game they will make.
Pre-Production

Before the real production begins.
First pre-production:
- **Game Design Document**
- **First prototype** - shows gameplay *(has to be fun)*

Next cycles -> bug fixing and balancing
Vertical slice

Tiny portion of game with the final quality.

- standard for the final quality
- early promotional material
Production phase

The game assets and source code are made. The result of production is the playable game in form of:

- **Formal Details prototype** - a playable game, has win-lose rules, co-relations between features, runs well.
- **Refinement prototype** - most mature prototype which only needs more polishing. Should be feature complete and almost ready to ship.
Testing phase

Evaluation of game features, value, concept and design.
Testing phase

Evaluation of game features, value, concept and design.

Some questions the testing should be answer:
1. Is the game still buggy?
2. Is it possible to get stuck in the game?
3. Is there any sign of exploits/glitch?
4. Is the game too easy/hard to beat?
5. Is there any feature missing?
6. Does the game run well on every platform?
Beta Phase

The beta test is testing cycle conducted by third party:

- publisher,
- potential buyer,
- game reviewer

Decide whether the game is ready for shipping.
Prototyping

Something that you will do very quickly in order to test and throw away.

How we made Islanders by Jonas Tyroller https://www.youtube.com/watch?v=xUc1La6auNs
Prototyping

For testing the design changes.

How we made Islanders by Jonas Tyroller [https://www.youtube.com/watch?v=xUc1La6auNs](https://www.youtube.com/watch?v=xUc1La6auNs)
Prototyping - Islanders

Multiple gameplay and visual prototypes

How we made Islanders by Jonas Tyroller [https://www.youtube.com/watch?v=xUc1La6auNs](https://www.youtube.com/watch?v=xUc1La6auNs)
Do not try to make everything, instead make it as small as possible

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Paper prototype - state your intentions

- What is the key question you are trying to answer?
  1. What are the all the combat actions?
  2. Will this make players laugh?
  3. When should new items appear in the store?
Paper prototype - determine the scope

- **Single idea** - eg. how much the potions should cost?

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Paper prototype - determine the scope

- **Single idea** - eg. how much the potions should cost?
- **Session** - eg. what kind of resources and how much there should be?

Riot Games Lead Designer Stone Librande about paper prototyping
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Paper prototype - determine the scope

- **Single idea** - eg. how much the potions should cost?
- **Session** - eg. what kind of resources and how much there should be?
- **Full game** - eg. how the players will allocate the skill points?

But only a small slice of the full game!

Riot Games Lead Designer Stone Librande about paper prototyping

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Paper prototype - determine the scope

- **Single idea** - eg. how much the potions should cost?
- **Session** - eg. what kind of resources and how much there should be?
- **Full game** - eg. how the players will allocate the skill points?
- **Meta game** - eg. how new units will change the player choices.

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Paper prototype - specify a purpose

- Mechanical Simulation

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Paper prototype - specify a purpose

- **Mechanical Simulation**
- **Abstraction** - the player will never actually see that

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Paper prototype - choose the time scale

- **Slow** - prototype is slower
- **Real time**
- **Fast** - prototype is faster

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Paper prototype - example

- **The simpsons game**: Springfield Map
- **Intention**: Locate key locations
- **Scope**: Full game
- **Purpose**: Mechanical sim.
- **Time Scale**: Fast
Paper prototype - final thoughts

● Write down goals before starting
● One size doesn’t fit all
● It doesn’t need to be fun!
● It doesn’t need to be a game!

Riot Games Lead Designer Stone Librande about paper prototyping
http://www.youtube.com/watch?v=bh5oqH1Dv8g&t=56m0s
Group Task

Form up to 8 groups 4-5 people each
Group 1
Group 2
Group 3
Group 4
Group 7
Group 8
Group task

Design a one mechanic spin-off using one touch mechanic.

Make a drawing describing this gameplay!

Try to find a new aspect of this theme. Your game doesn’t have to use the same mechanics. Eg. Fallout Shelter
Game design document

Guiding vision document created by development Team

Used to organize the efforts within the development Team

Bachelor’s thesis “Guide to writing a game design document” Jukka Haltsonen: 
thttps://www.theseus.fi/bitstream/handle/10024/101088/Haltsonen_Jukka.pdf?sequence=1&isAllowed=y
The summary

A game description for you as a player:

1. What is your aim?
2. How do you begin and what do you do?
3. How does the game respond to your actions?
4. What changes in game over time or as you progress?
5. What must you do to keep up with the game progress?
6. How does the player fail and succeed?
A game description for you as a player:

1. **What is your aim?** - Your aim is to build and operate a Prison.
2. **How do you begin and what do you do?** - You begin with an area of land, some raw materials and some staff. You use this to construct the first basic prison block.
3. **How does the game respond to your actions?** - Prisoners fill your prison, bringing you federal grant income.
4. **What changes in game over time or as you progress?** - As time goes by your prison expands and increases in population. Prisoners get tougher.
5. **What must you do to keep up with the game progress?** - Player must balance essential maintenance with security.
6. **How does the player fail and succeed?** - either you achieve a goal of having X prisoners or lose your contract along the way.
# Game design canvas

<table>
<thead>
<tr>
<th>Game Name</th>
<th>Pitch</th>
<th>Mechanics</th>
<th>Meta Game</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Platform / Genre</strong></td>
<td><strong>Describe your game in max one or two sentence.</strong>&lt;br&gt;<strong>Nail the core!</strong></td>
<td><strong>How does the game actually work?</strong>&lt;br&gt;<strong>What provides variation?</strong></td>
<td><strong>What is there in addition to basic gameplay and levels?</strong>&lt;br&gt;<strong>How can the player progress in the game?</strong>&lt;br&gt;<strong>Something to build, advance.</strong></td>
</tr>
<tr>
<td>Why this platform and genre?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target Group</strong></td>
<td><strong>What is unique in your game?</strong>&lt;br&gt;<strong>What makes this game unique and tempting to publish?</strong>&lt;br&gt;<strong>Why would anybody buy this game?</strong>&lt;br&gt;<strong>Good visuals or story are not unique selling points.</strong>&lt;br&gt;<strong>Provide something totally new or new to something already made.</strong></td>
<td><strong>What do you do in the game?</strong>&lt;br&gt;<strong>How do you achieve it?</strong>&lt;br&gt;<strong>Provide variation.</strong></td>
<td></td>
</tr>
<tr>
<td>Male / Female, Age</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Provide 10 year radius like 20-30 male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No such thing as everybody</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Market Research</strong></td>
<td><strong>Goal / Objective</strong></td>
<td></td>
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</tr>
<tr>
<td>Name similar reference games.</td>
<td><strong>What do you do in the game?</strong>&lt;br&gt;<strong>How do you achieve it?</strong>&lt;br&gt;<strong>Provide variation.</strong></td>
<td><strong>What is the setting, where does this take place?</strong>&lt;br&gt;<strong>Utilize the theme or try other ones!</strong></td>
<td></td>
</tr>
<tr>
<td>Make sure you are unique.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not skip this!</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Feature list</strong></td>
<td><strong>Monetization</strong></td>
<td></td>
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<tr>
<td>Give idea of the size of your game.</td>
<td><strong>F2P / Freemium / Single Purchase / Subscription</strong></td>
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</tr>
<tr>
<td>Provide content list with amounts like</td>
<td><strong>How will your game monetize?</strong>&lt;br&gt;<strong>What will provide value for the player?</strong>&lt;br&gt;<strong>Make the game worth playing</strong></td>
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<tr>
<td>5 npcs (police, burglar, ...)</td>
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<tr>
<td>3 visual themes (ice, sand...)</td>
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<tr>
<td>5 power-ups (bomb, missile, collectable...)</td>
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<tr>
<td>Game modes, if any (like classic, campaign, multiplayer)</td>
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<tr>
<td><strong>Challenge</strong></td>
<td><strong>1st level Mockup</strong></td>
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</tr>
<tr>
<td>What is the challenge for the player?</td>
<td><strong>What will the game look like?</strong>&lt;br&gt;<strong>Easily understandable game.</strong>&lt;br&gt;<strong>Draw on the other side -&gt;</strong></td>
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<tr>
<td>How do you avoid being repetitive?</td>
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</tbody>
</table>

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**Game Design Canvas Copyright 2016 © Juha Huhtakallio, Wave 7 Games**

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The template is in courses
Details and illustrations

● Make it readable:
  ○ Plenty of white space
  ○ Paragraphs
  ○ Short lines of text

● Get into the details - readers can understand general things differently.

● Illustrate your paragraphs - include drawings and pictures from the internet (you can reuse the pieces from previous homeworks if they are applicable)

Following game design canvas cells have be detailed and illustrated:

● Market research
● Meta-game
● Storyline / Setting / Theme
● Visual Style
● 1st level mockup
Minimal viable product

Set a minimum list of features required to play and enjoy the game

- Should provide a challenge
- Should set a goal for the player
- Have to be implementable for 1st milestone = 1 month.

Concentrate on your core gameplay loop

- Art is not important
- Sounds are not important
- Meta-game is not important (unless it is part of your 90% loop)

Kingdoms and castles postmortem GDC talk: [https://www.youtube.com/watch?v=NpkLUolgcXQ](https://www.youtube.com/watch?v=NpkLUolgcXQ)
Paper prototype - bonus task

- Select some part of your game that needs prototyping. (preferably something related to MVP)
- Answer the questions of
  - Why - State your intention
  - Where - Determine the scope
  - What - Specify a purpose
  - When - Choose the time scale
- Make a paper prototype for answering these questions
- Make a picture of your prototype (include this picture to the design document)
Design document submission

**Deadline** - next monday before lecture (14.15)
- Create a design document (PDF format) that includes:
  - Name of the game
  - Names of the team members
  - The summary
  - Game design canvas with details and illustrations
  - Tasks for minimal viable product (MVP)
- One person per team submits in Courses
- Prepare slides for the presentations (don’t submit)
- **Bonus** (max 2 points) - Create a paper prototype
Next week

- **Design document presentations**
  (at least 2 people per team have to attend)
  - 5 minutes for presentation (2-5 slides)
    - Present your team
    - Describe your game idea
    - Describe the planned MVP for 1st milestone
  - 1 minute for answering questions

Recommendations:
- Only 1 person should do the talking
- Test your laptop connection before the lecture