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# UI & UX

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**What are "UI" and "UX"?**

# User Interfaces (UI)

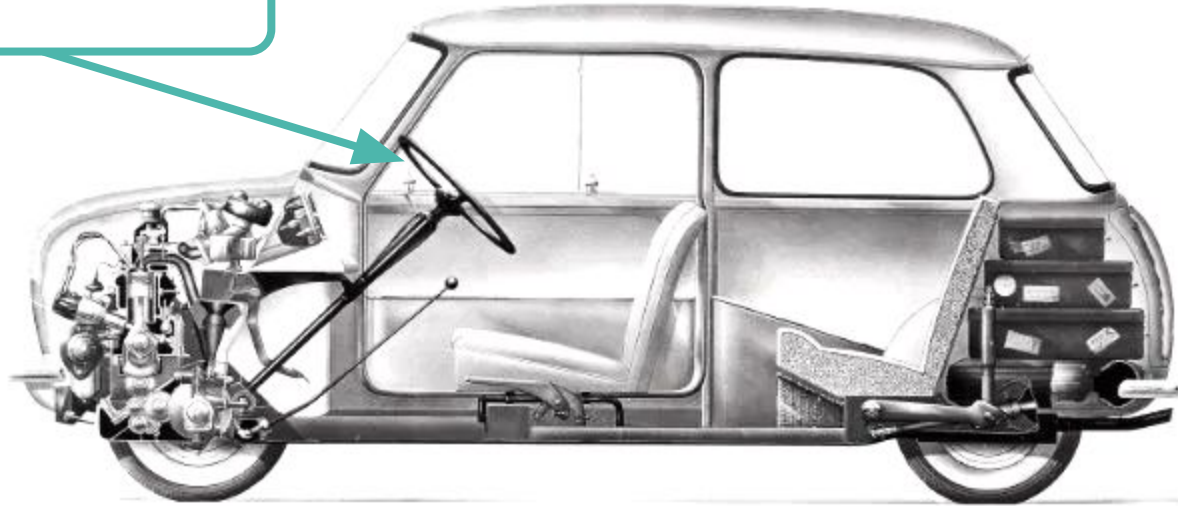
- How players *interact* with your game
  - What they look at
  - What they click
  - What they do

# User Experience (UX)

- How players *feel* when playing your game
  - More subjective
  - What makes your game feel *smooth* or *good*

## User Experience

User Interface



# What UI and UX components does *your* game use?

e.g. Decisions you've made to make your game look or feel good.

**Fonts**

READABILITY

***Words***

*Dialogue*

The obvious advice:

"Don't use *Comic Sans MS*"



The obvious advice:

"Don't use *Comic Sans MS*"

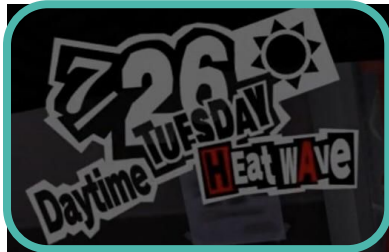
... But you could do worse.

At least it's **easy to read!**

## Font Choice

**Legibility is important!**

**Short labels**  
Fancy font is *OK!*



**Dialogue**  
Simple and legible!

Don't let it get to you.

You can change.

Beep boop.

Makoto

She thought I was a robot...

OPTIONS FFWD  
Log

Game: Persona 5

*Would you want to read an entire tutorial cutscene if it was written in cursive? A few words might be okay, but the longer the text gets, the more difficult this becomes!*

WOULD YOU WANT TO READ AN ENTIRE TUTORIAL CUTSCENE  
IF IT WAS WRITTEN IN THIS FONT? IS THIS AN B OR Δ B OR ΔN F?  
WHAT IS Δ? CAN YOU IMAGINE HOW PAINFUL THIS WOULD BE?

# Keep text simple and legible!

Pick an *easy to read* font over one that's *harder to read*, even if it fits the mood of your game!

(Unless you're doing a typography based puzzle)

Font Colour

**Legibility is (still) important!**



Use a black outline!

A shadow/overlay behind your text works well too!

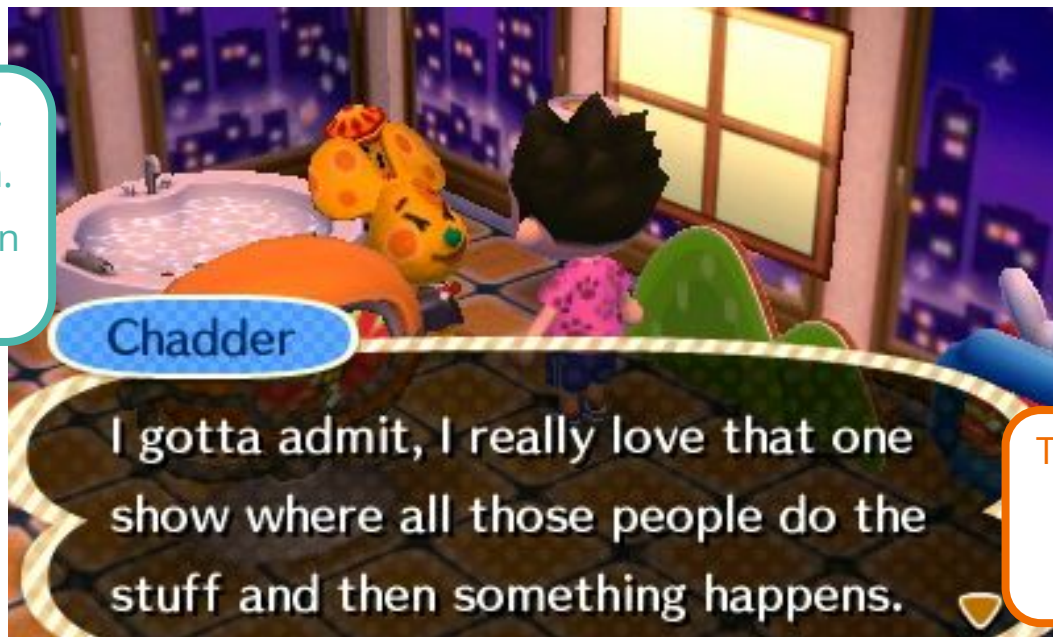




# Character Dialogue

# Fixed Dialogue Boxes

Usually at the top or bottom of the screen.  
Doesn't obscure main visual focus.

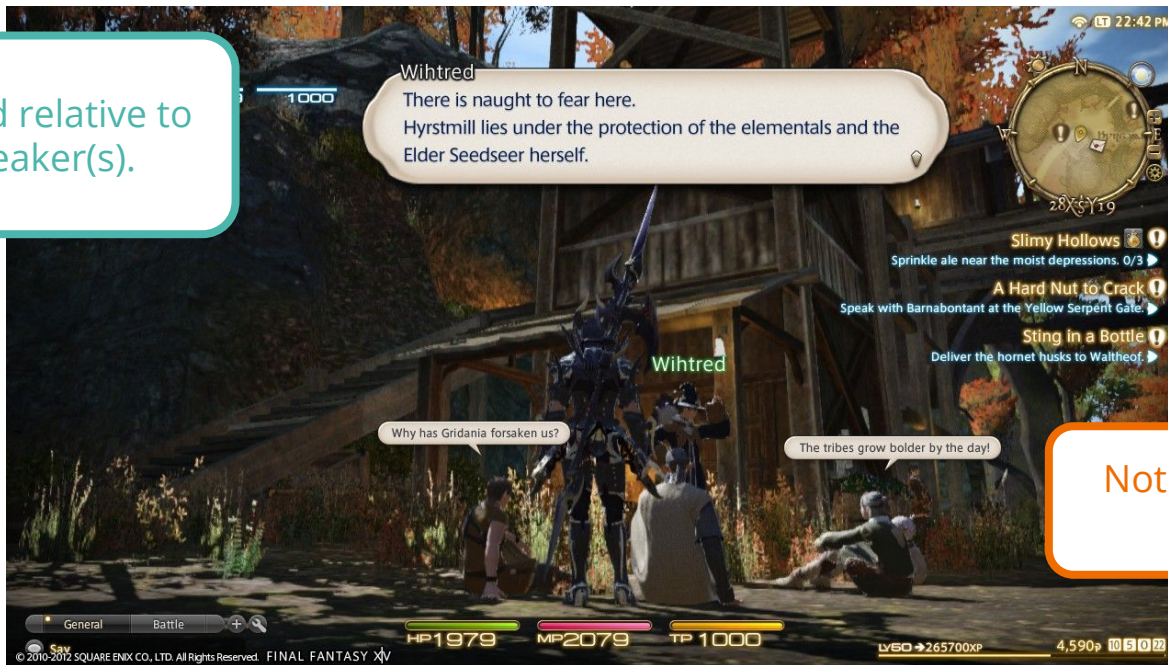


The dialogue is usually the main focus and requires active attention.

Game: Animal Crossing New Leaf

# Floating Dialogue Boxes

Positioned relative to the speaker(s).



Not all text requires attention.

Game: Final Fantasy XIV

Character Portrait

# Who's Speaking?

Dialogue Colours



Games: Maplestory 2 (Left), Mabinogi (Right)

# Deciding on how to display dialogue

- How important is the dialogue?
- Is the dialogue the focus of your game?
- Do you want to try force players to read it?

**Assume players won't read!**



Game: Maplestory 2

<https://youtu.be/20F6RsihU3c?t=517>

**Playtest your text choices!**



# Control Schemes



A bit harder to reach  
(but still easy)!  
Less important  
interactions.

Easiest to reach!  
Most used  
interactions here.

# Teaching Controls to your Player



**Playtest your controls!**

# Example: Opening an Inventory



# Example: Opening an Inventory



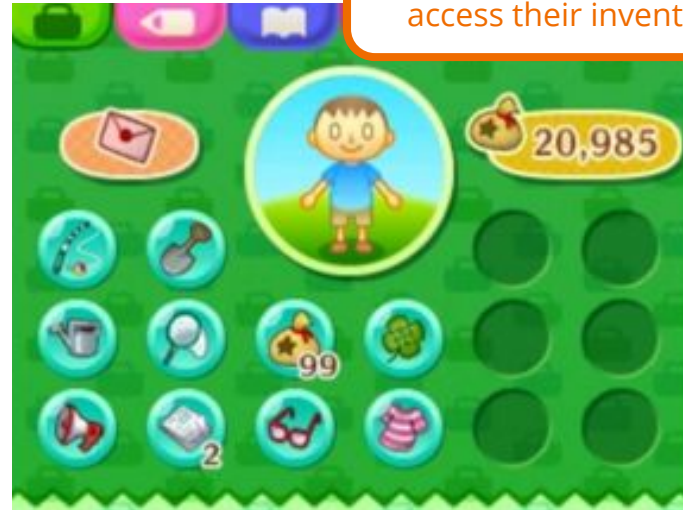
Games: Don't Starve (Left), Animal Crossing (Right)

# Heads Up Display

Inventory in HUD  
Players have to constantly  
check their inventory



Inventory not in HUD  
Players only occasionally  
access their inventory.



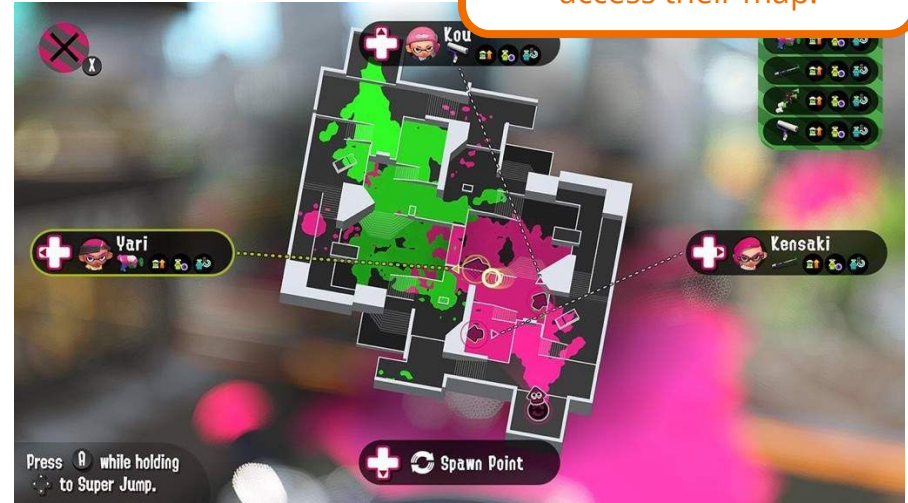
Games: Don't Starve (Left), Animal Crossing (Right)



Map in HUD  
Players have to constantly  
check their map



Map not in HUD  
Players only occasionally  
access their map.



Games: Mario Kart (Left), Splatoon 2 (Right)

# Keep HUDs Simple!



# HP / Damage Gauge Displays

- Lives?
- Large number/HP amount?
- Some other number?



Games: Legend of Zelda (Left), Pokemon (Middle), Super Smash Bros. (Right)

# HP / Damage Gauge Displays

Players should be able to see *roughly* how they're doing ***without having to read!***

# HP / Damage Gauge Displays



# HP / Damage Gauge Displays

3/5

# HP / Damage Gauge Displays



# HP / Damage Gauge Displays

10232/13000



# HP / Damage Gauge Displays



10232 / 13000

# HP / Damage Gauge Displays



# HP / Damage Gauge Displays



**Colours are a visual cue  
too!**

# Other Visual Cues



Game: Overwatch

# Other Visual Cues



Game: Don't Starve

# Other Visual Cues



Game: Don't Starve

# Targeting UI



Games: Overwatch (Left), Splatoon 2 (Middle), League of Legends (Right)

**Simple HUDs let players focus  
on the game!**



# Cameras

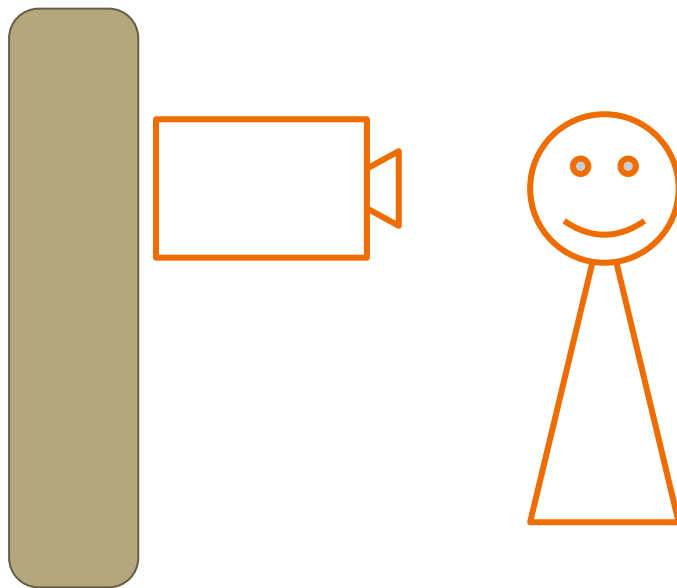
# Deciding on how to display dialogue

- 1st Person vs. 3rd Person
  - 1st Person: More immersive and more motion sickness
  - 3rd Person: Occlusion and camera positioning
- Keep motion sickness in mind!

# Occlusion: 3rd Person Perspective



# Occlusion: 3rd Person Perspective



# Occlusion: 3rd Person Perspective





Game: Tales of Zestiria  
<https://youtu.be/WDimte-mnPM?t=18>

**Playtest your Camera Settings!**

Camera Effects

# Cinematography



# Zooming In



Game: Tales of Vesperia

# Slow Motion



Game: Breath of the Wild

# Freezing



Game: Super Smash Bros. Ultimate

# Screen Shakes



Game: Nier Automata

# Sound

# Sound

- Mood








# Sound

- Mood
- Ambience

# Sound

- Mood
- Ambience
- Space

I love this game, but can we admit, footsteps have gone to shi [redacted] (self.FortNiteBR)

submitted 1 year ago \* (last edited 1 year ago) by [redacted] 

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It used to be so useful and it's now a joke. (Nb4 get a better headset: I play with Astro A40's and a mixamp)

Edit for clarification: -Footstep audio range has been greatly reduced, not giving you much time to react and easily losing players past 5-10 ft. range when tracking footsteps. -Crouch walking/running is loud and does not give much incentive to play stealthy as players can still hear you clearly when crouch walking/running. -difficult to gauge how much noise you're actually making when moving. I sound quiet through my headset but apparently am stomping around like an elephant to other players...even when crouch walking. -when crouch walking/running, your own footsteps continue playing after you have stopped moving -footsteps sound like they are coming from a couple feet behind you

# Hierarchy

Create

## ▼ LoadingScreen

Main Camera

Scene Loader

▶ Canvas

SoundManager

# Inspector



SoundManager

Static

Tag

Layer

## ▼ Transform

Position X  Y  Z

Rotation X  Y  Z

Scale X  Y  Z

▶  Audio Source

▶  Audio Source

## ▼ Sound Manager (Script)

Script

Effects Source

Music Source

Low Pitch Range

High Pitch Range

Add Component



Simlish	English
♪ Sul Sul	♪ Hello
♪ Oh Feebee Lay!	♪ I'm Hungry!
♪ Nooboo	♪ Baby
♪ Lalo	♪ Milk
♪ Checkmar	♪ Checkmate
♪ Za Woka Genava	♪ I think you are hot
♪ Ooh Be Gah	♪ Very Good!
♪ Woofum	♪ Dog
♪ Dag Dag	♪ Goodbye
♪ Xor	♪ Be
♪ Choo wagga choo choo!	♪ Something in the way!
♪ Whippna Choba Dog!	♪ This is cool!
♪ Sulsul! Plerg Majah Bliff?	♪ Hello! Can I do something else?
♪ Sherb	♪ Shake
♪ Gerb Woof Em	♪ Come Here
♪ Sass Awful	♪ That's Awful!
♪ Badeesh / Vadish	♪ Thanks
♪ Blursh! Meshaloob! Blursh!	♪ Excuse me! Get out of my way!





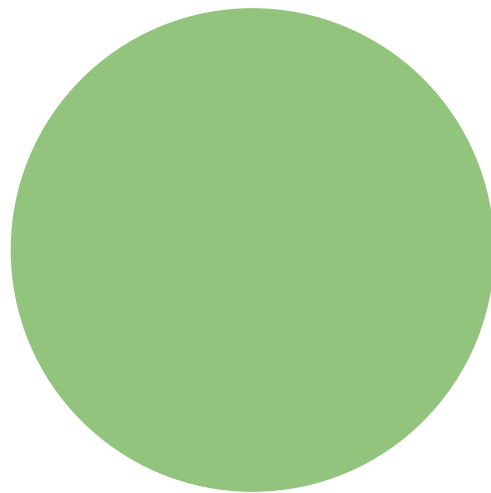
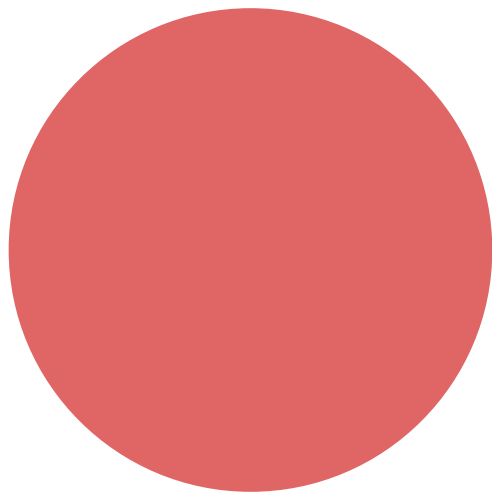
# Sound

- Mood
- Ambience
- Space
- Character Voices

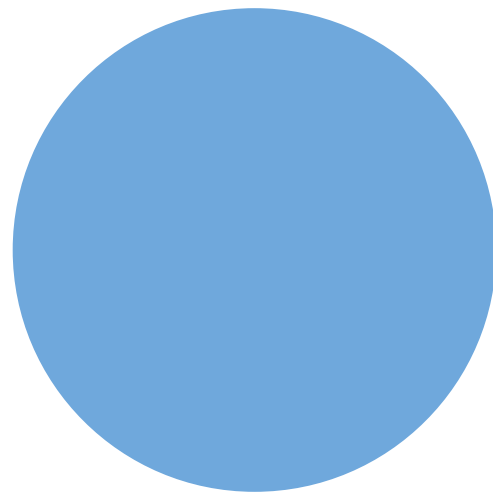
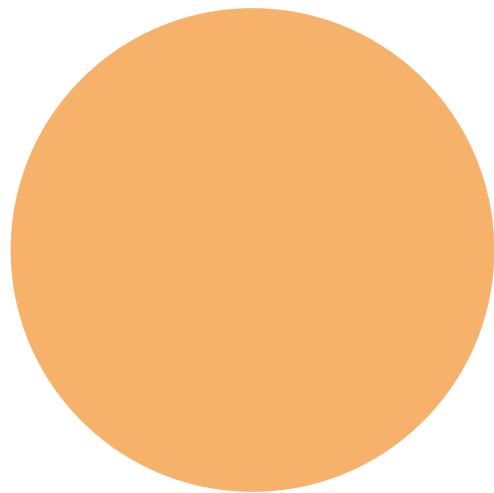


# Colours

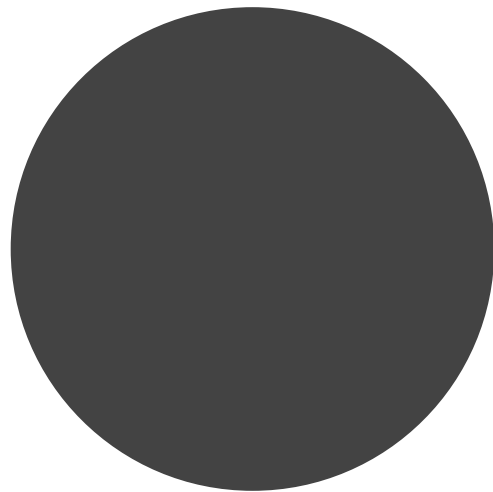
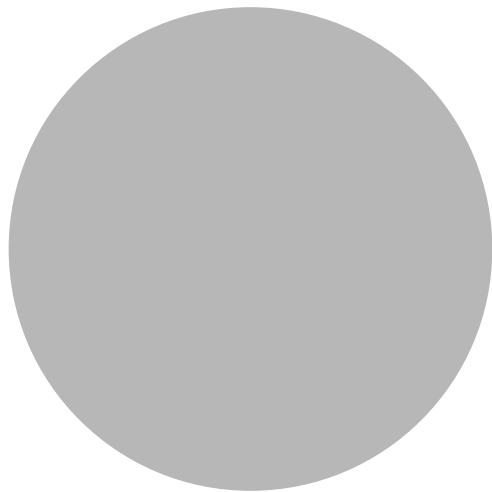
# Colour Blindness



# Colour Blindness

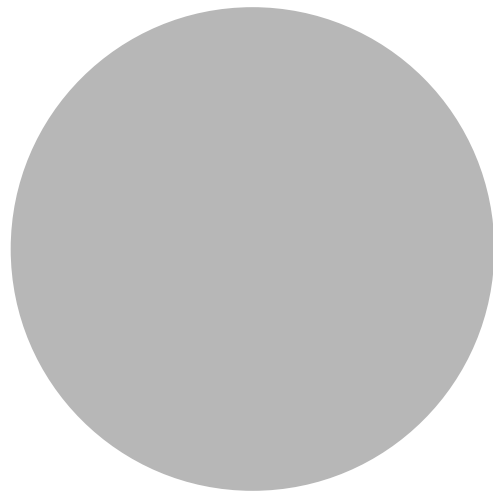
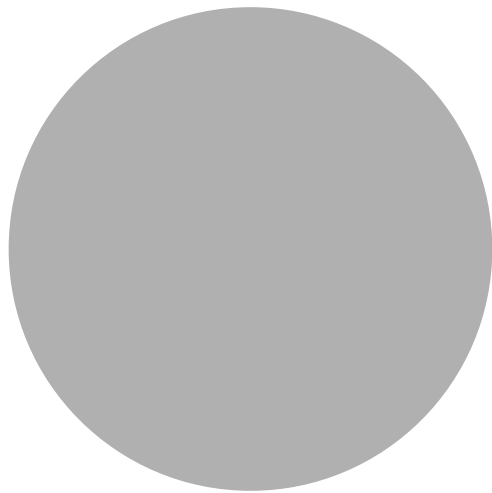


# Brightness



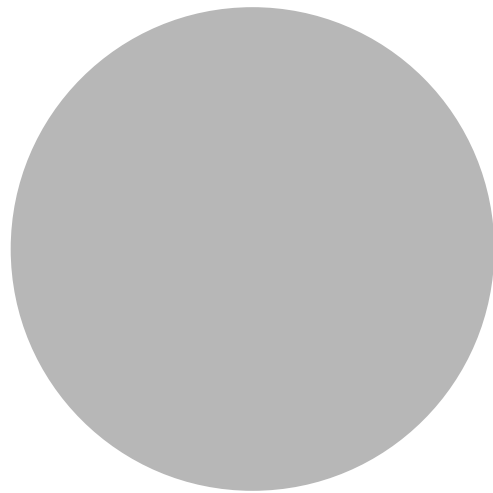
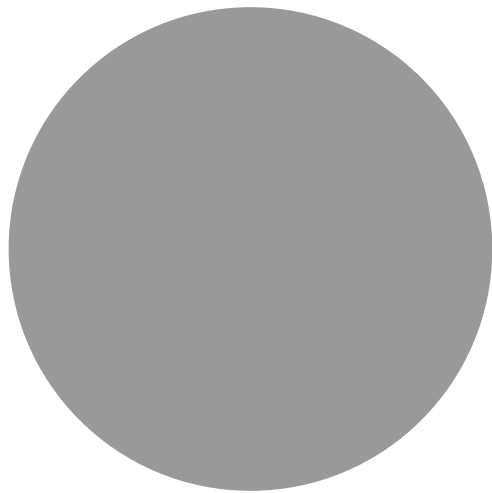
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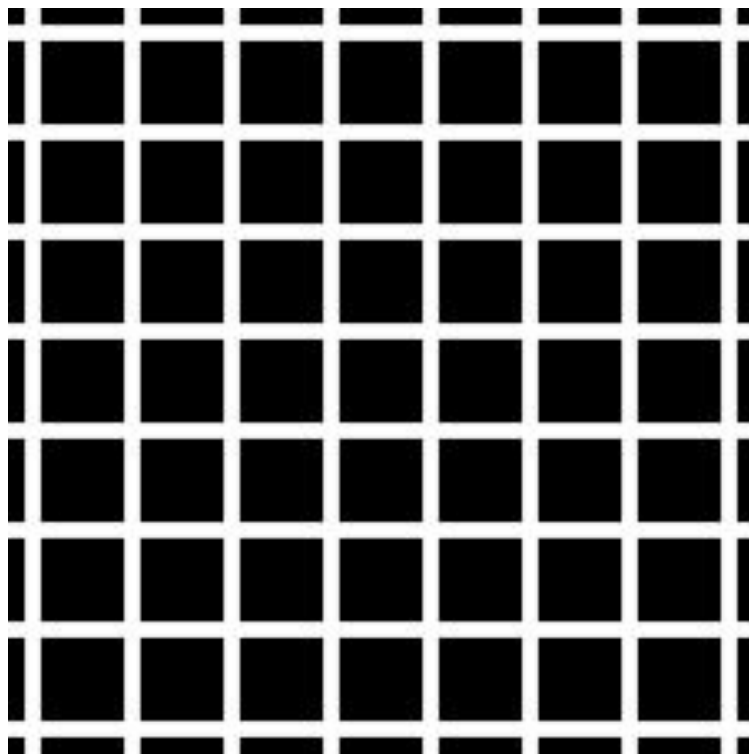
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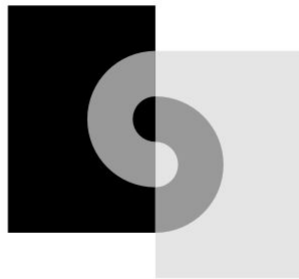
# Perception



# Perception



# Perception



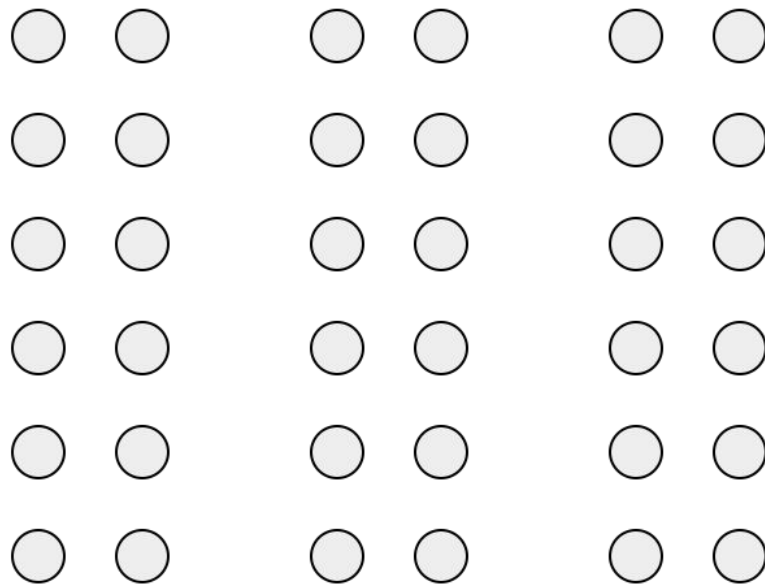
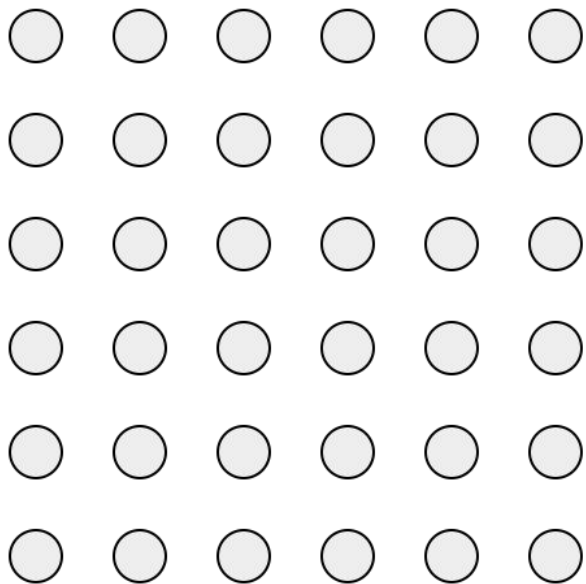
# Perception



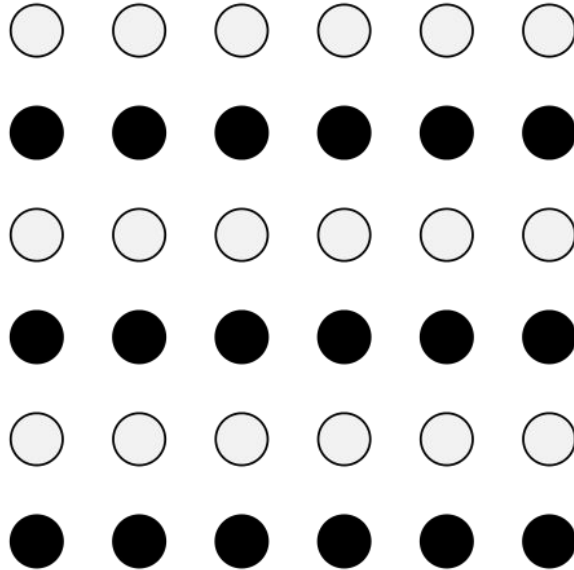
# Gestalt Psychology

"The whole is **something else** than the sum of its parts." (Kurt Koffka)

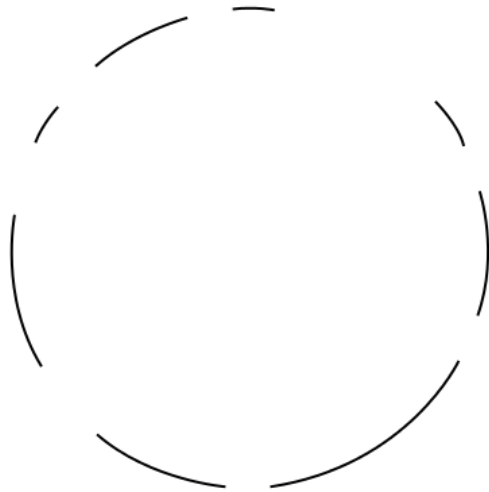
# Law of Proximity



# Law of Similarity



# Law of Closure

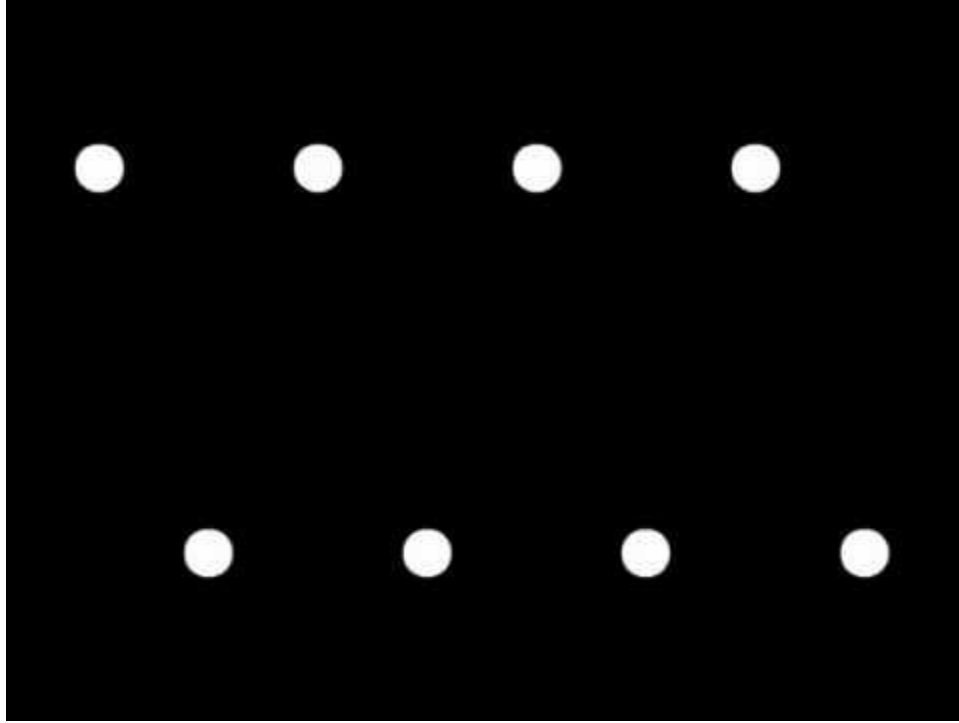




# Law of Continuity



# Law of Common Fate



# Law of Common Fate



# Awareness



# Animations

# Animations



# Animations

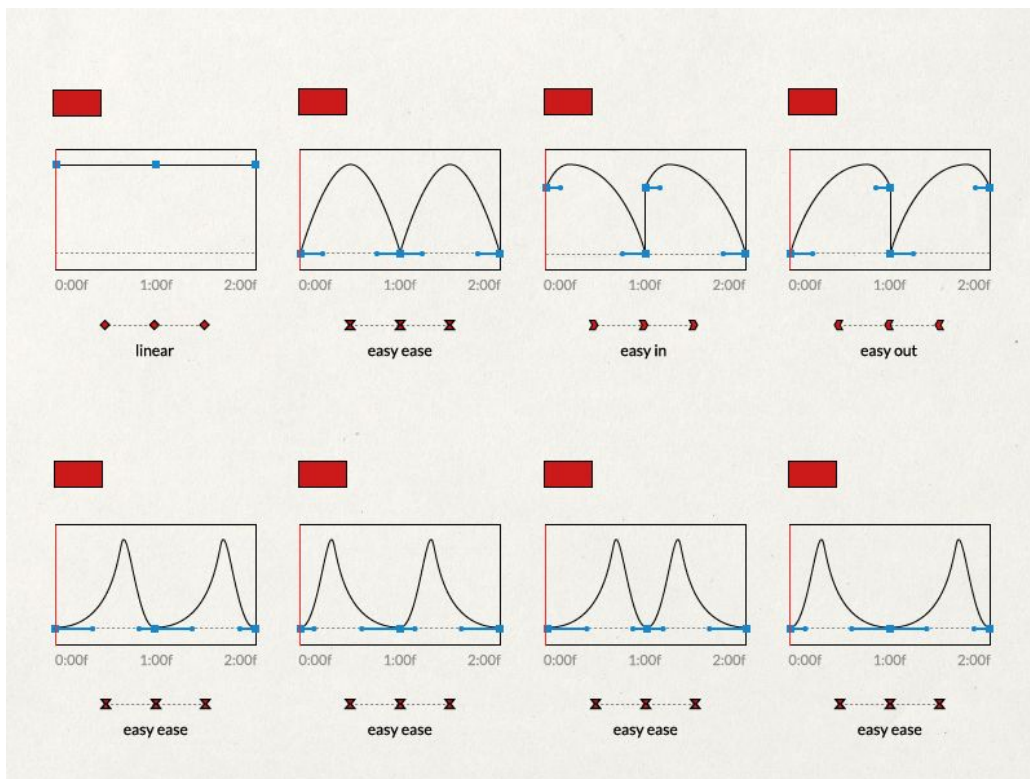


# Animations



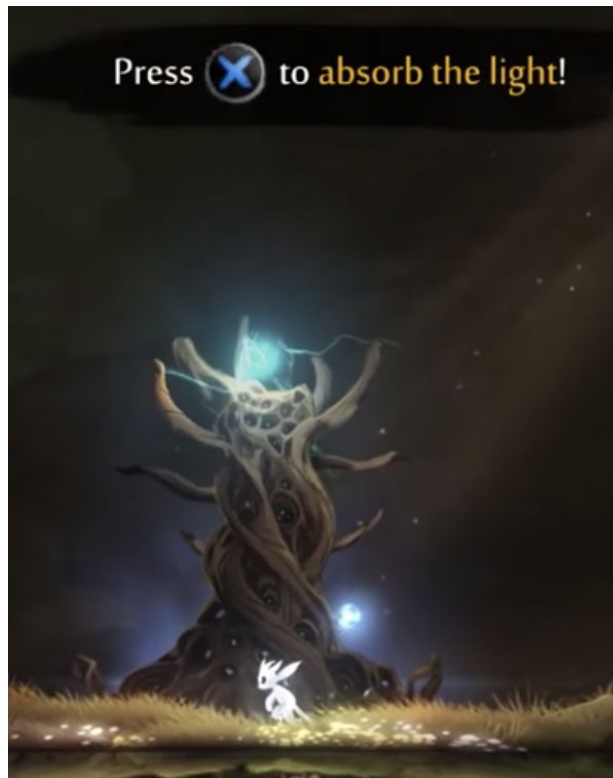
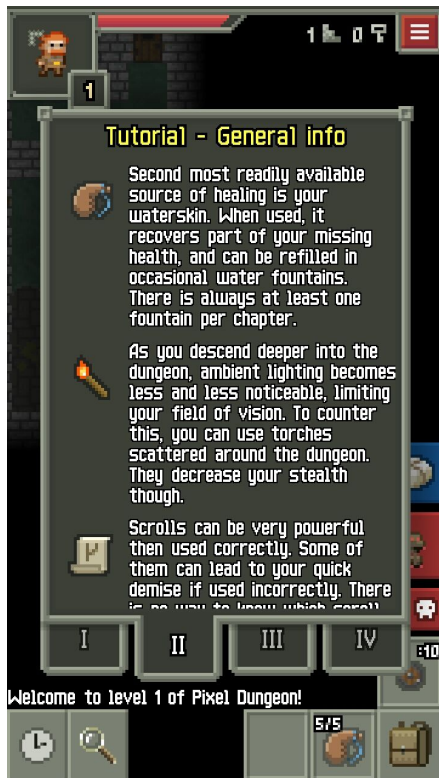


# Animation Curves



# Putting Stuff Together

# Guiding Players





# Guiding Players













# Guiding Players



# Guiding Players

- Text
- Contrast
- Outlines, overlays, highlights
- **Animation**
- Special effects
- Sound

# Guiding Players

- Text
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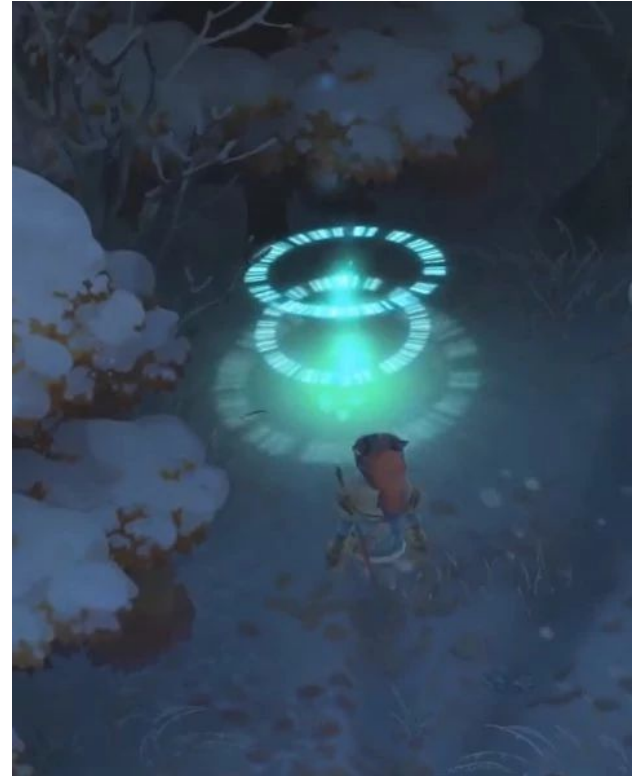
# Guiding Players

- Text
- Contrast
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- **Sound**

# Guiding Players



# Guiding Players



**Feedback**



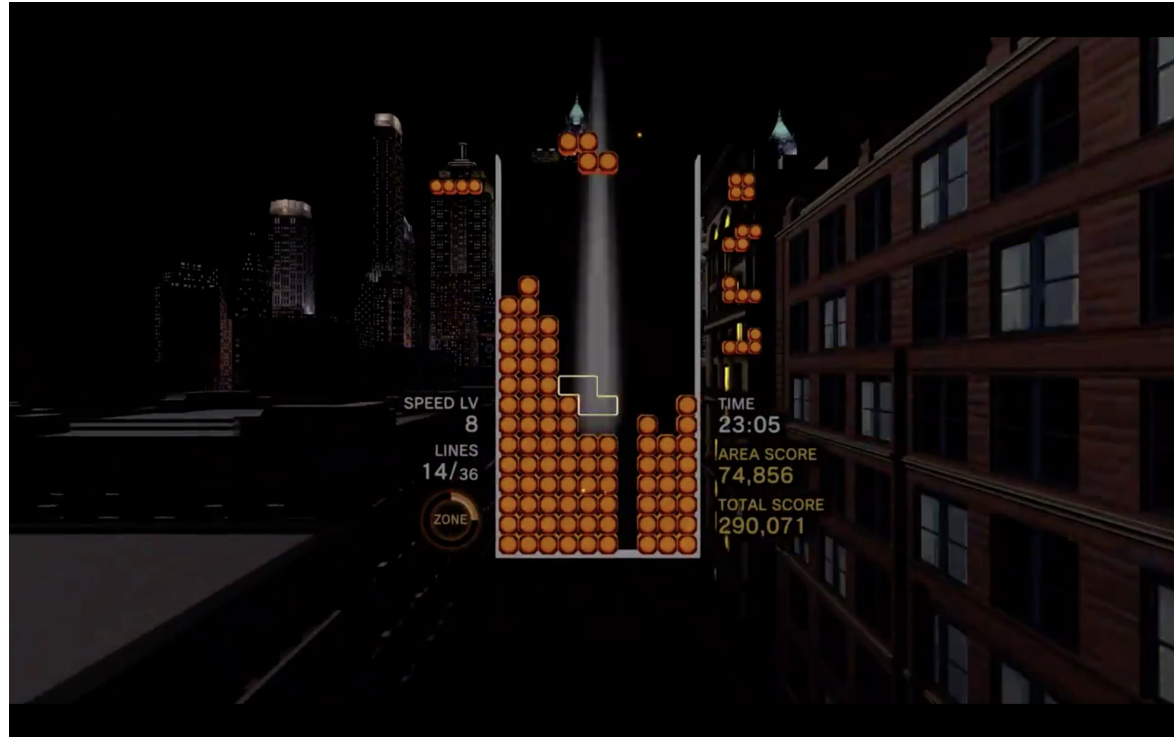
# Animation Feedback



# Animation Feedback



# Example (Tetris Effect)



<https://twitter.com/turd133/status/1060773730236932097?lang=en>

# "Correct Action" Feedback



Game: Tales of Vesperia

# "Incorrect Action" Feedback



Game: Tales of Vesperia

# Rhythm Game Feedback



Game: osu

# Rhythm Game Feedback



Game: Rhythm Heaven Fever  
<https://youtu.be/FdUhPG69PTo?t=176>

# UI & UX

- Art and technical details make a game.  
Good UI and UX make a game *good!*
- Pay attention to UI and UX!
- Playtest *a lot!*