CDI Student Case

How Do We

Play

Games Sha Li

PC - KEYBOARD & MOUSE

http://listrose.com/top-10-reasons-desktop-better-laptop/

http://dota2gifs.com/fear-meets-navi/

http://www.guildwars2guru.com/topic/19155-best-razer-keyboard-and-mouse/
http://www.techspot.com/news/49541-razer-unveils-customisable-ambidextrous-ouroboros-gaming-mouse.html
http://www.razerzone.com/gaming-keyboards-keypads/razer-lycosa

Operation
Press
Click
Combined Operation
Weight

The rich meanings of mouse events

Fun Fact
The excitement usually cannot be seen from player's motion

CONTROLLER - GAMEPAD

http://knewsmart.com/news/8596/

http://www.nintendo.com/wiiu/features

The Evolution of the Nintendo Controller

The Evolution of the Playstation Controller

The Evolution of the Xbox Controller

So much FUN at home!

Buttons

Fun Fact
Player's body sometimes reacts to the games, as well as the face!

Motion sensing input devices
e.g. Kinect

The Original Game Boy

http://en.wikipedia.org/wiki/Handheld_game_console

http://knewsmart.com/news/8596/

http://giphy.com/search/hearthstone

<u>One Unit</u>
Console
Screen
Speakers
Controls

<u>Portable</u>
Lightweight
Anytime, Anywhere

Press, press, press…

What is the future?

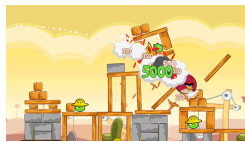**Nintendo 3DS Review**

https://www.youtube.com/watch?v=yeQGkadrCkE

e.g. Nintendo 3DS
 - 3D screen
 - 3D Depth Slider
 - 3D camera
 - Motion sensor & gyro sensor
 - Analog control
 - Stylus
 - Two screens
 - HOME Menu Themes
 - SD Memory Card included
 - Backwards compatibility
 - StreetPass™
 - SpotPass™
 - Built-in software

http://www.nintendo.com/3ds/features

Angry Birds
https://www.angrybirds.com/play/angry-birds

Fruit Ninja
http://fruitninja.com

Turns millions of people into gamers!

How?! **- Provides more possibilities in interactions**
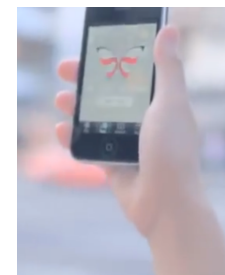
<u>Accessibility</u>
Anytime, Anywhere
Rich game types

<u>Internet</u>
GPS
Social events

<u>Gestures</u>
e.g. iOS
 - Long Press
 - Pan
 - Pinch
 - Rotation
 - Swipe
 - Tap

<u>Motions</u>
e.g. iOS
 - Acceleration
 - Relative altitude, Pressure
 - Attitude, Rotation rate
 - Magnetic field
 - Motion activities
  · stationary
  · walking
  · running
  · automotive
  · cycling
  · unknown
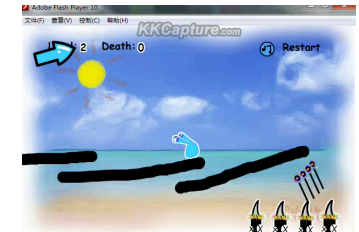 - Pedometer
  · distance
  · floors
 - Step counter

iButterfly

Augmented Reality/ What
technologies does it use?

Hair Salon Me

Why I do feel I'm doing
the hair?!

Run Sasa!

How to transfer it from PC to iPad?

Birdly

Hey buddy, how you feel…?

Enhanced virtual reality experience
Eyes, Brain, Body
Motion, Feel
Simulation sickness

e.g. Oculus Rift
Development Kit 2
  - Positional Tracking
  - Low Persistence OLED Display
  - Built-In Latency Tester
  - Engine Integrations
  - Oculus SDK

Collaborate with other devices
Wii, Xbox, Phone…
Fan, Kite…
Keyboard, Mouse…
Sounds…

Movie: Wreck-It Ralph

What can we learn from the arcade games?

Rich Interactions
Joysticks & Buttons
Racing
Shooting
Dancing
Music, Band
OMG…

Apply to other media

Joystick
motions and the feedbacks

Future
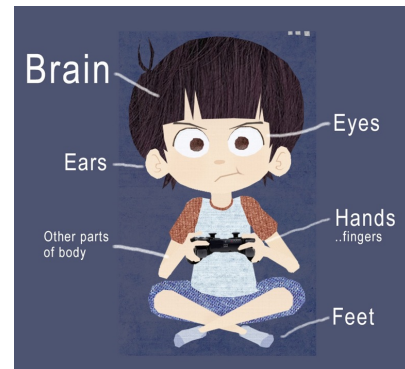
Get rid of game controllers?

Reading Minds?

…

Traditional Senses
Sight
Hearing
Taste
Smell
Touch

Other Senses
Balance and acceleration
Temperature
Kinaesthetic sense
Pain
Other internal senses

Perception not based on a specific
sensory organ
Time

"Leonard, the people at Nintendo can only go so far in helping us **recreate** an **actual** athletic **experience**. We have to do our part, too."

The Big Bang Theory - S4,E20

Re-design interactions for a game

What kind of **experience**?

What are they going to do in your game?

What are the actions?

How many players?

What's the feedbacks?

…

What are the techniques?

MAY HAVE A LOOK…

Marshall, Damien, Tomas Ward, and Séamus McLoone. "From chasing dots to reading minds: the past, present, and future of video game interaction." *Crossroads* 13.2 (2006): 10-10.

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Cheok, Adrian David, et al. "Touch-space: Mixed reality game space based on ubiquitous, tangible, and social computing." *Personal and ubiquitous computing* 6.5-6 (2002): 430-442.

Prensky, Marc. "The motivation of gameplay: The real twenty-first century learning revolution." *On the horizon* 10.1 (2002): 5-11.

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Wilcox, Tom, et al. "Gaze and voice based game interaction: the revenge of the killer penguins." *SIGGRAPH Posters* 81 (2008).

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Nacke, Lennart Erik, et al. "Biofeedback game design: using direct and indirect physiological control to enhance game interaction." *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2011.

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