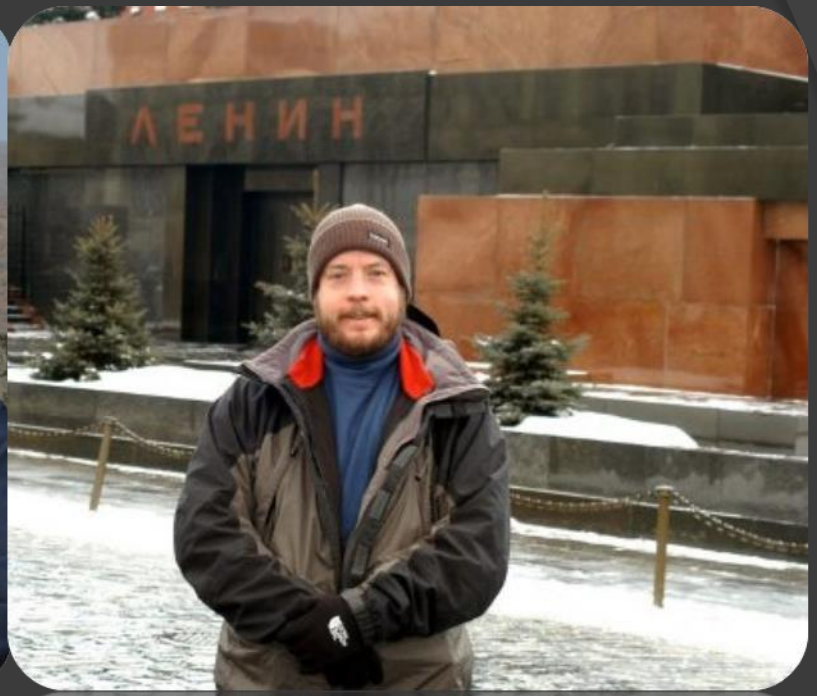
http://bit.ly/Portugal_JW

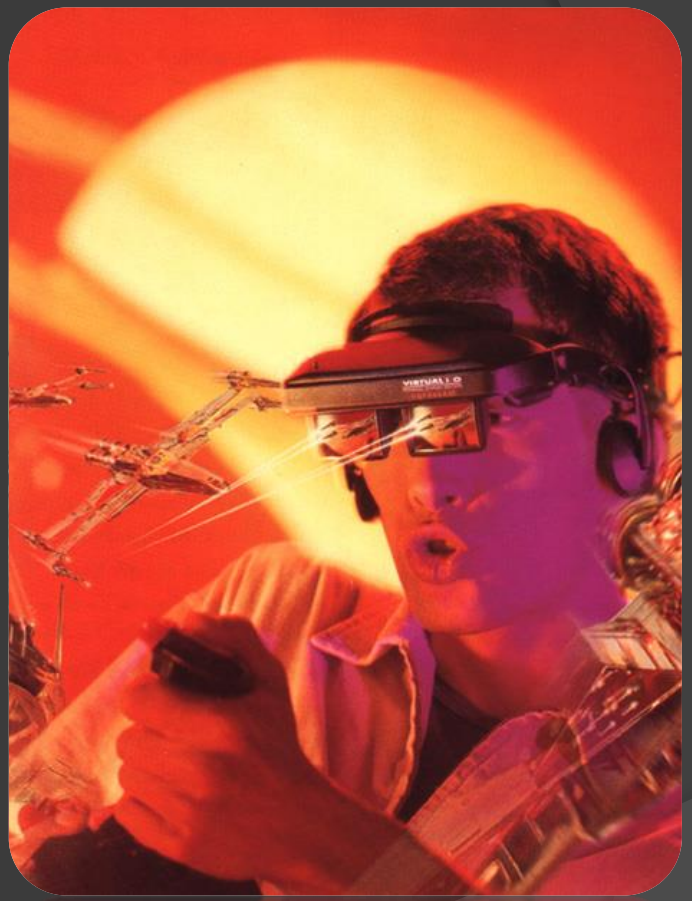
John E. Williamson



20 year Industry Veteran
B.S. and M.S. in Experimental Psychology

Virtual iO

Backed by Logitech and Amiga



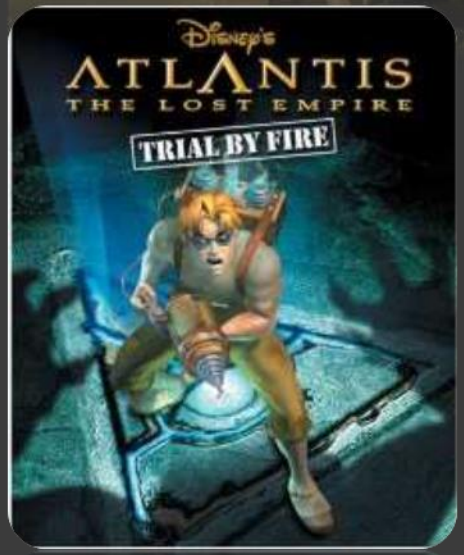
Platforms

iOS, Android, Wii, PSN, XBLA, PS3, PS1, Xbox 360, Xbox, Dreamcast, Web, PC, VR, Motion Based Ride

Genres

FPS, RTS, Survival Horror, Arcade/Casual, F2P, MOBA, Simulation

Writer/Producer/Designer



http://bit.ly/Portugal_JW

GOAL OF THIS PRESENTATION

LEARNING

IS

CREATION

NOT

CONSUMPTION

“Learning is **creation**, not consumption. Knowledge is not something a learner absorbs, but something a **learner creates**.”

There is nothing more creative than a video game

The goal is not to turn this

Into this

for ($i = 1; $i <= 10; $i++) {
echo $i;
}
switch ($i) {
case 0:
for ($i = 1; ; $i++) {
if ($i > 10) {
break;
}
echo $i;
}
case 1:
echo "i equals 1";
case 2:
echo "i equals 2";
$i = 1;
for (; ;) {
if ($i > 10) {
break;
}
echo $i;
$i++;
}
for ($i = 1, $j = 0; $i <= 10; $j += $i, print $i, $i++);
?>
<?php
for ($i1 = 0; $i1 < 2; $i1++) {
// Loop 1.
for ($i2 = 0; $i2 < 2; $i2++) {
// Loop 2.
switch ($i2 % 2) {
case 0:
continue;
break;
}
print '[' . $i2 . ']
';
}
print $i1 . '<br>';
}
?>
if ($i < 5) {
break;
}
$i *= $factor;
if ($i < $minimum_limit) {
break;
}
echo "finish";
} while (0);
?>
<?php
for ($i1 = 0; $i1 < 2; $i1++) {
// Loop 1.
for ($i2 = 0; $i2 < 2; $i2++) {
// Loop 2.
switch ($i2 % 2) {
case 0:
continue;
break;
}
print '[' . $i2 . ']
';
}
print $i1 . '<br>';
}
?>
switch ($i) {
case 0:
echo "i equals 0";
break;
case 1:
echo "i equals 1";
break;
case 2:
echo "i equals 2";
break;
}

But this.
Engaged, Curious Students

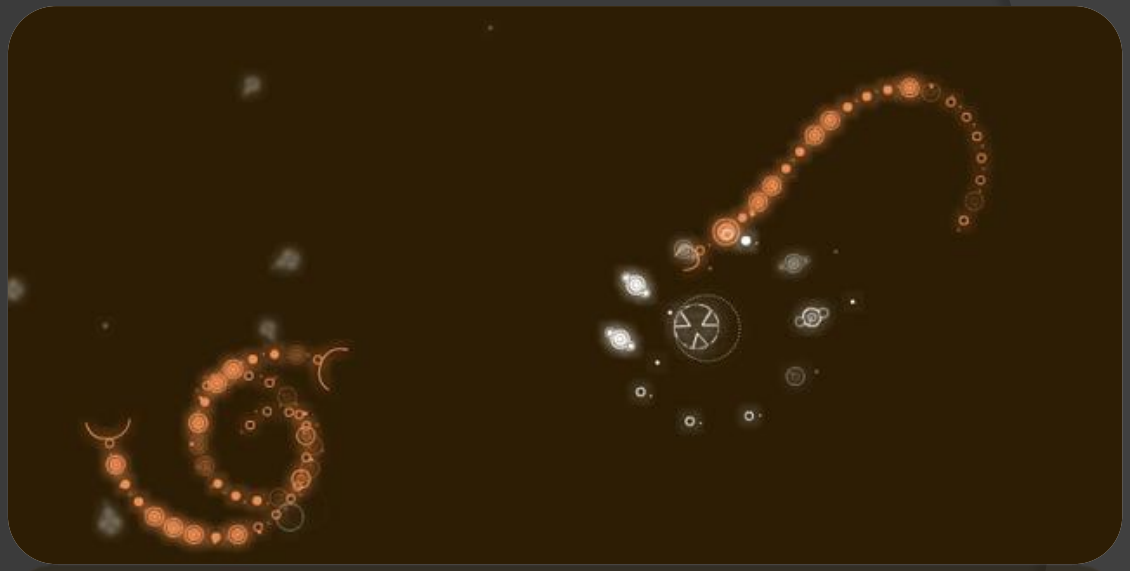
Curiosity
IS THE WICK IN
THE CANDLE OF
LEARNING

William Arthur Ward

VIDEO GAMES ARE
BAD FOR YOU?
THAT'S WHAT THEY
SAID ABOUT
ROCK 'N' ROLL
- SHIGERU MIYAMOTO

Video Games are art
Museum of Modern Art

- Pac-Man (1980)
- Tetris (1984)
- Another World (1991)
- Myst (1993)
- SimCity 2000 (1994)
- vib-ribbon (1999)
- The Sims (2000)
- Katamari Damacy (2004)
- EVE Online (2003)
- Dwarf Fortress (2006)
- Portal (2007)
- flOw (2006)
- Passage (2008)
- Canabalt (2009)



https://moma.org/explore/inside_out/2012/11/29/video-games-14-in-the-collection-for-starters/

Video Games are art
US Supreme Court

CNN Tech » Gadgets | Cyber Security | Innovation Nation

Supreme Court sees video games as art

By **John D. Sutter**, CNN
June 27, 2011 8:33 p.m. EDT | Filed under: Gaming & Gadgets

The "God of War" games from Sony are considered violent, but the Supreme Court says such games still have protection as art.

STORY HIGHLIGHTS

- Supreme Court rules against California ban on violent video game sales to minors
- A sub-point of majority opinion: Video games are art
- The court says games deserve First Amendment protections
- The fact that they are "interactive" does not change their nature, court says

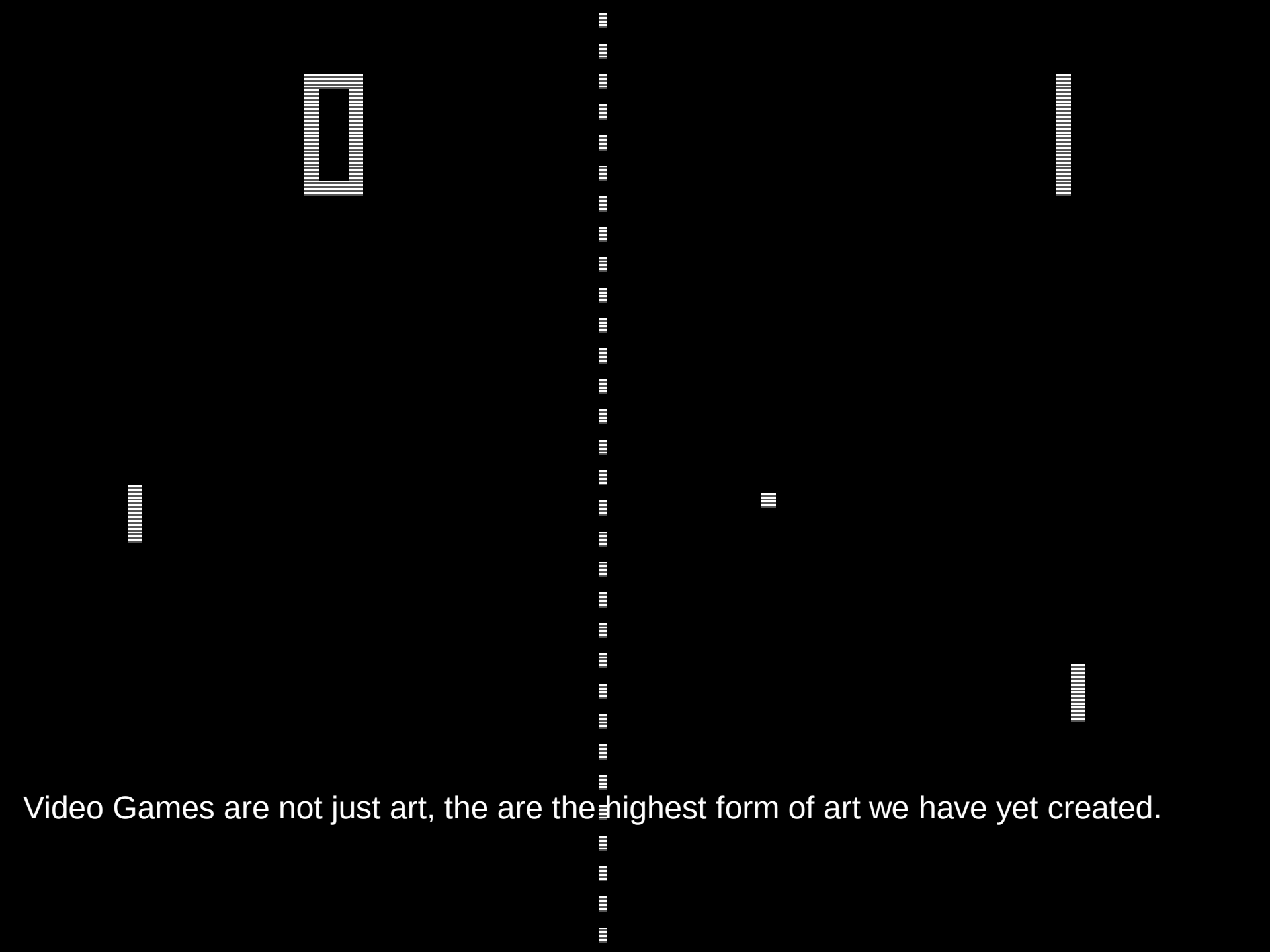
(CNN) -- Maybe it helps for the nation's highest court to say it, too?

Video games are art, and they deserve the exact same First Amendment protections as books, comics, plays and all the rest, the U.S. Supreme Court said Monday in a ruling about the sale of violent video games in California.

California had tried to argue that video games are inherently different from these other mediums because they are "interactive." So if a kid has to pick up a controller and hit the B button -- over and over again until he starts to get thumb arthritis -- to kill a person in a video game, that's different from reading about a similar murder, the state said.

http://www.cracked.com/blog/5-things-video-games-do-better-than-any-other-forms-art/

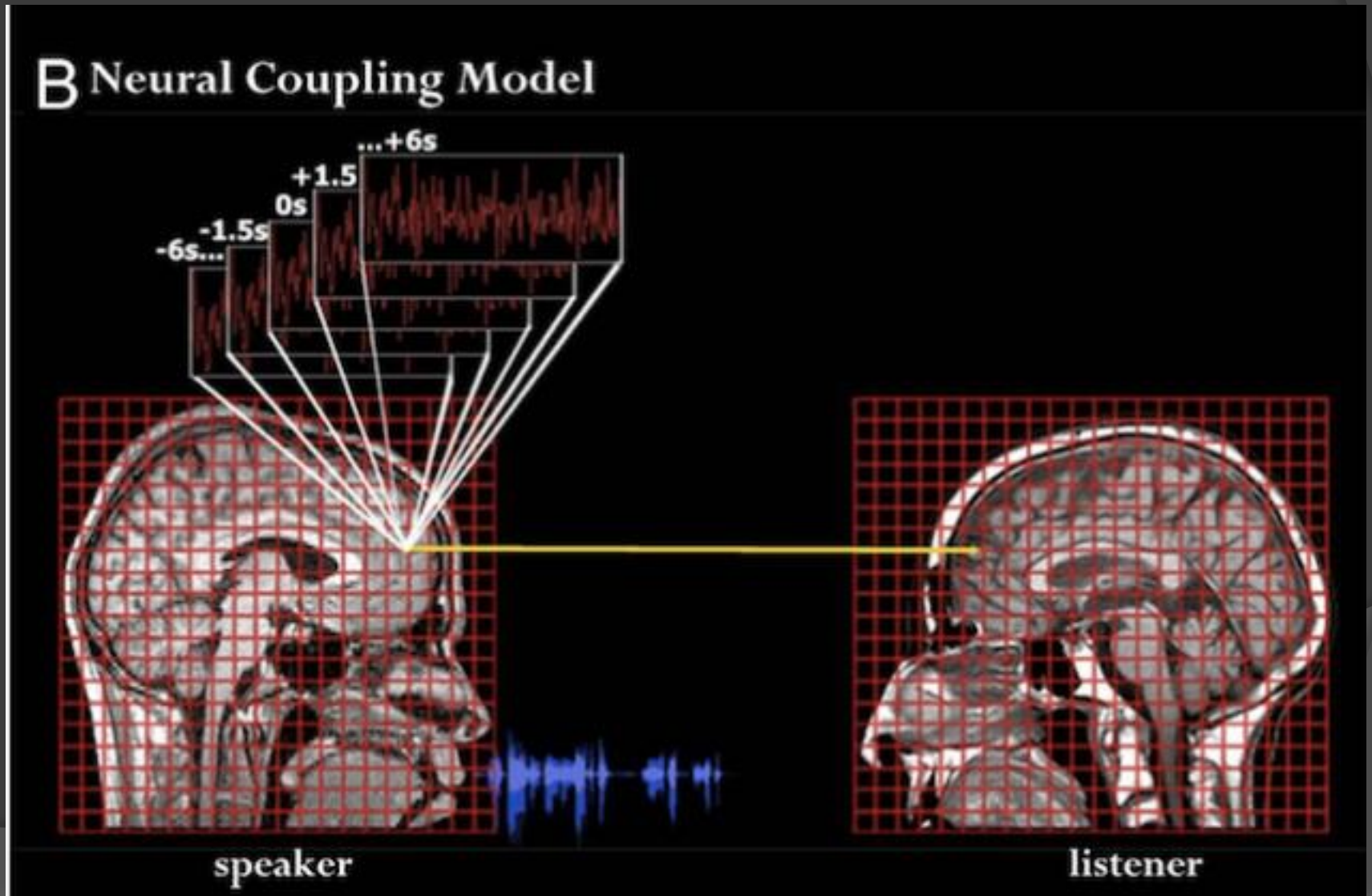
STORY TELLING



Video Games are not just art, the are the highest form of art we have yet created.

Art has always been about telling stories.

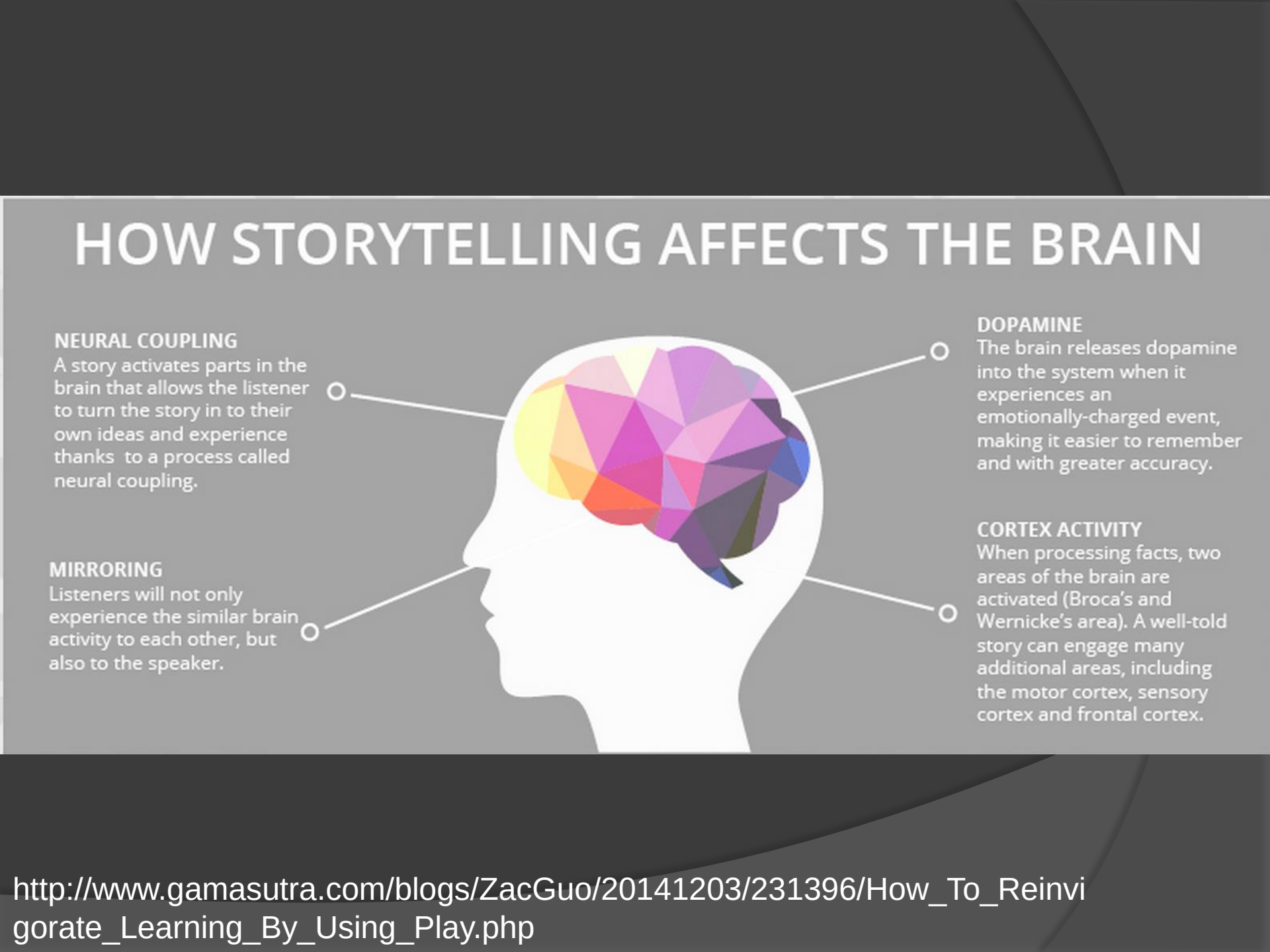
We are evolved for story telling
Similar parts of the brain light up.



Climbing Mt. Rainier

Columbia Crest
14,411'
13,500'
"High Break"
12,300'
Disappointment Cleaver
Emmons Glacier
11,200'
The "Flats"
Ingraham Glacier
Cathedral Gap
Cowlitz Glacier
Camp Muir
10,030'
The Disappointment

HOW STORYTELLING AFFECTS THE BRAIN

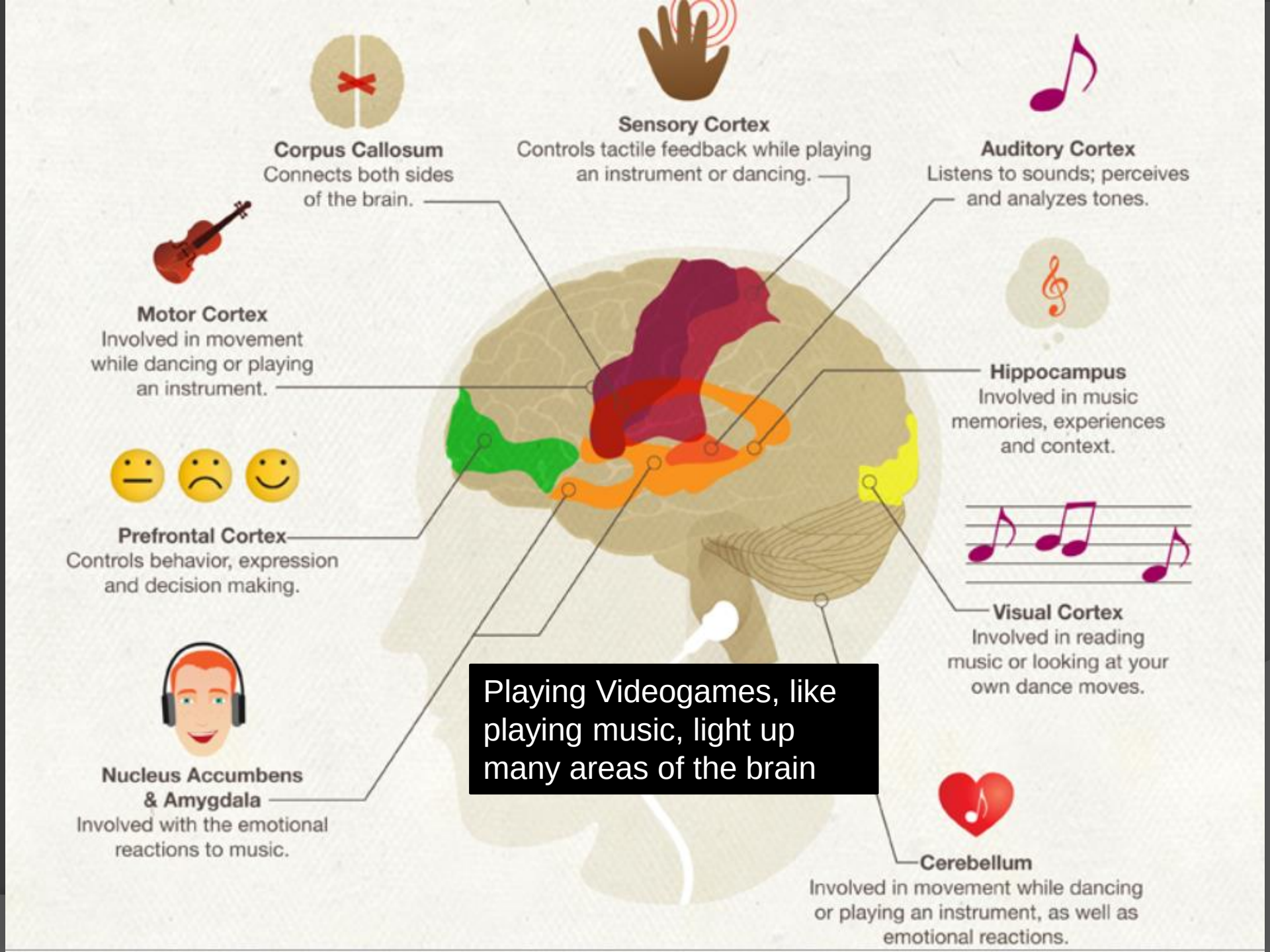


http://www.gamasutra.com/blogs/ZacGuo/20141203/231396/How_To_Reinvigorate_Learning_By_Using_Play.php

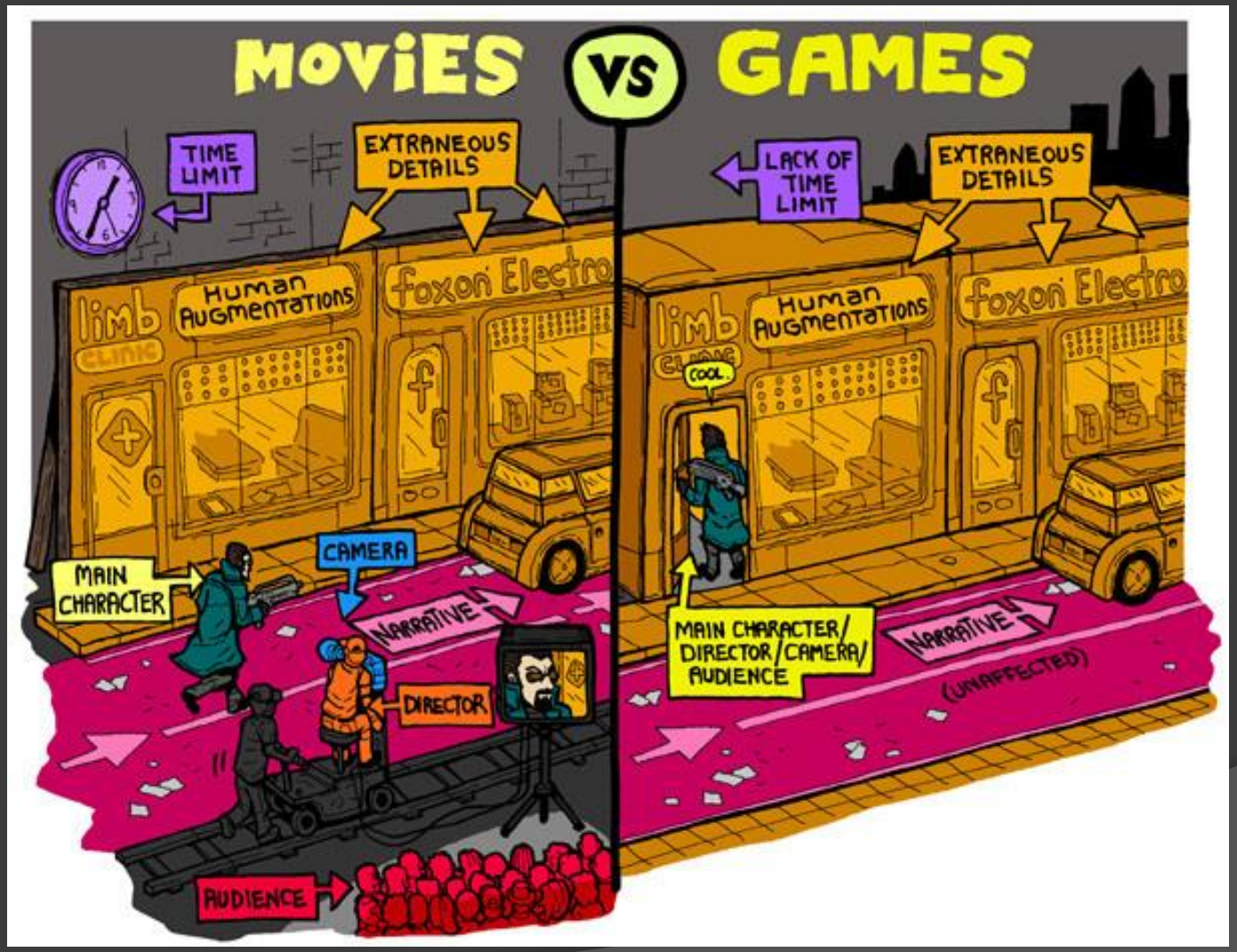
To get empathy for a character, you need choices. Empathy can release Oxytocin

Random Reinforcement = Dopamine Hit
Games have random loot tables

http://www.psychologyofgames.com/2009/12/phat-loot-and-neurotransmitters-in-world-of-warcraft/

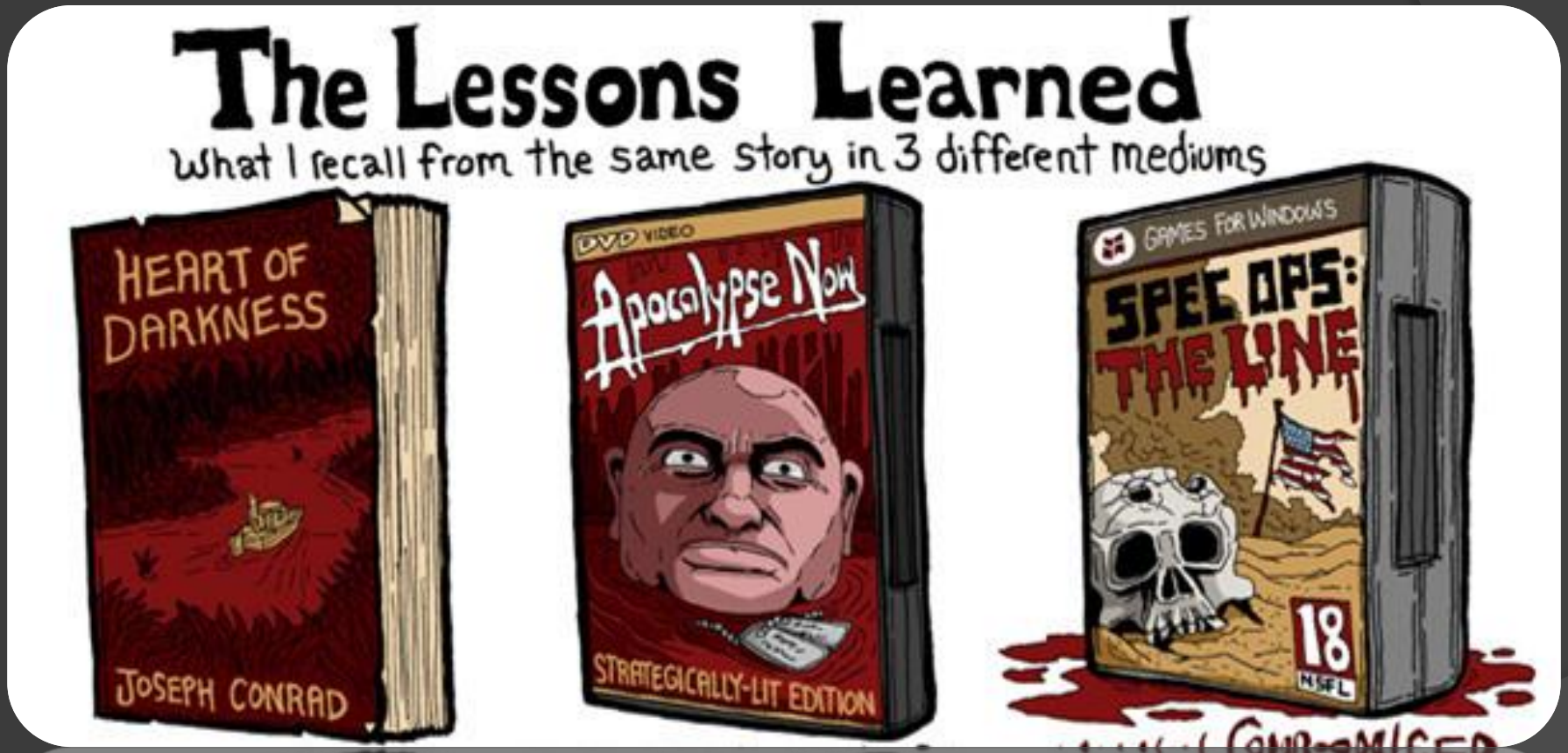

Corpus Callosum
Connects both sides of the brain.
Sensory Cortex
Controls tactile feedback while playing an instrument or dancing.
Auditory Cortex
Listens to sounds; perceives and analyzes tones.
Motor Cortex
Involved in movement while dancing or playing an instrument.
Hippocampus
Involved in music memories, experiences and context.
Prefrontal Cortex
Controls behavior, expression and decision making.
Visual Cortex
Involved in reading music or looking at your own dance moves.
Playing Videogames, like playing music, light up many areas of the brain
Nucleus Accumbens & Amygdala
Involved with the emotional reactions to music.
Cerebellum
Involved in movement while dancing or playing an instrument, as well as emotional reactions.

Video Games Allow Better Stories



http://www.edutopia.org/blog/neurologist-makes-case-video-game-model-learning-tool

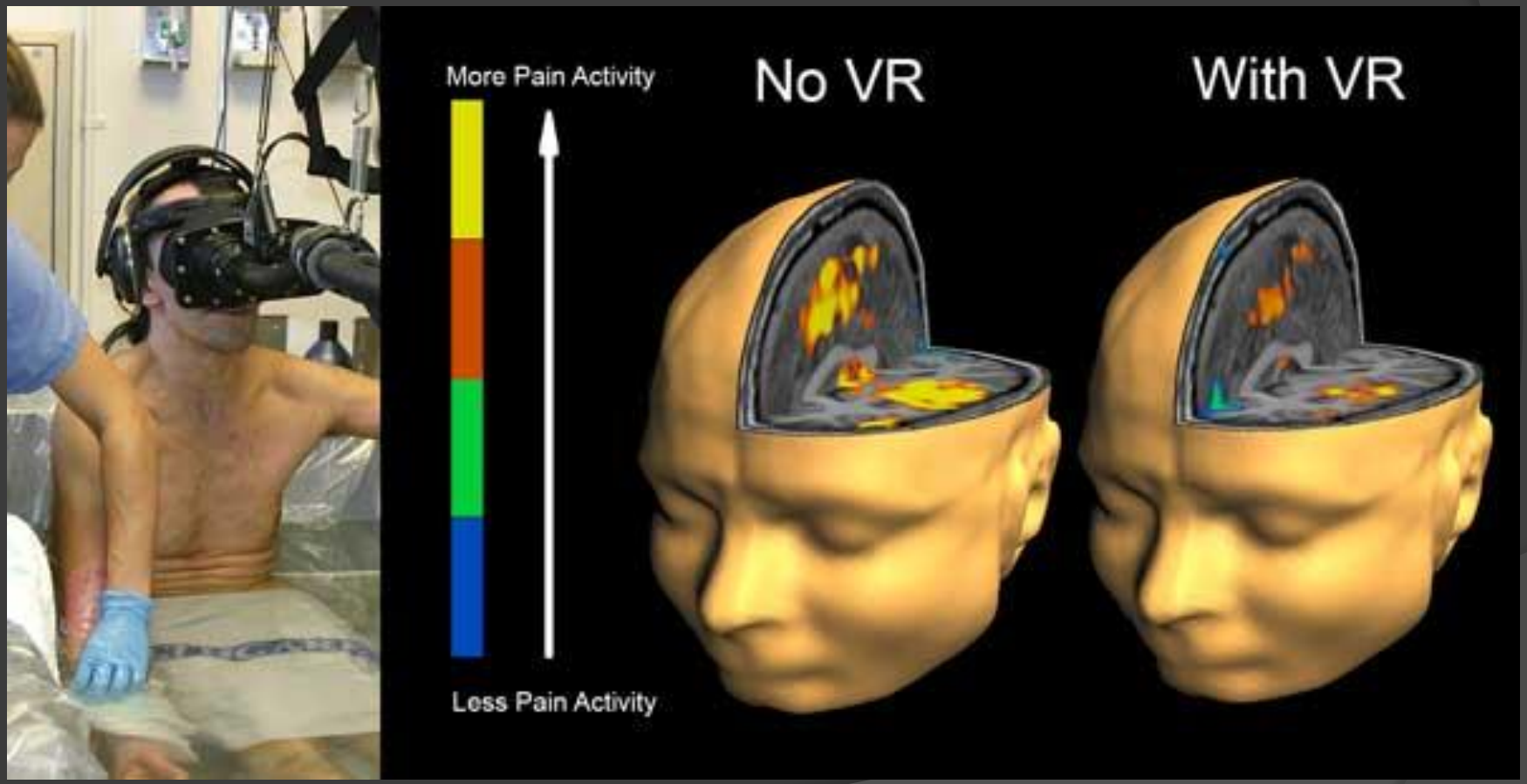
Video Games Allow Better Stories



http://www.edutopia.org/blog/neurologist-makes-case-video-game-model-learning-tool

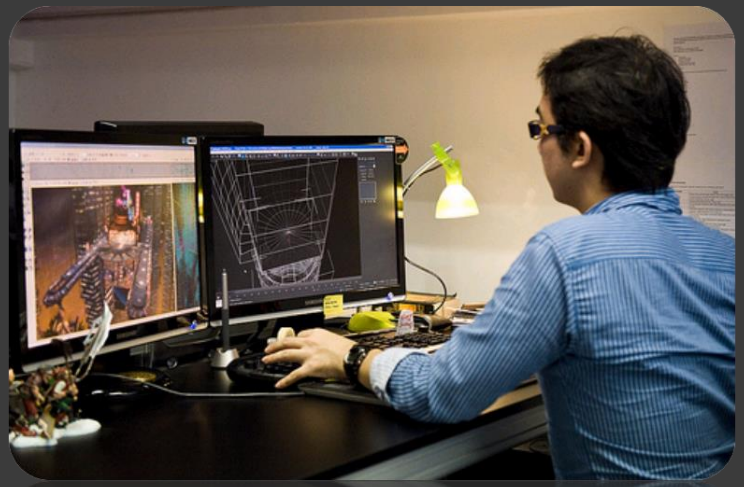
VR Games Change Pain Perception

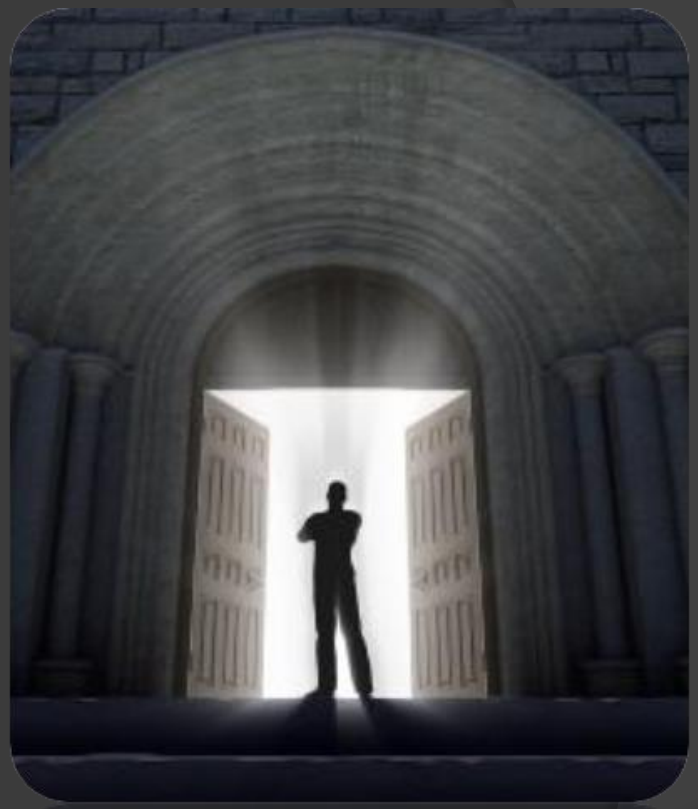
VR Games Change Pain Perception



GAMES PRODUCTION

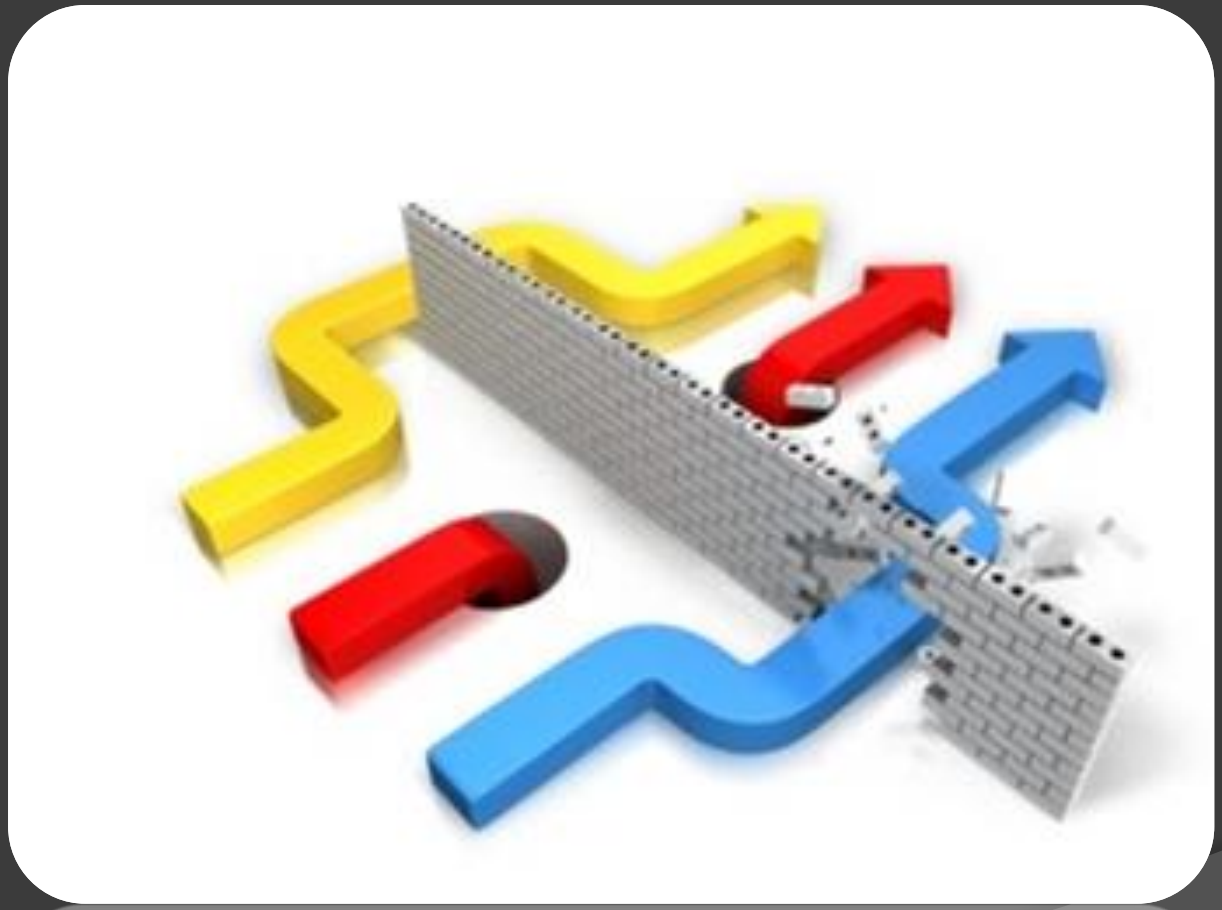
Barriers to Entry





Hardware
Software
Distribution
Licensed Developer
Training
Financing

No Barriers to Entry
EverY tool is free



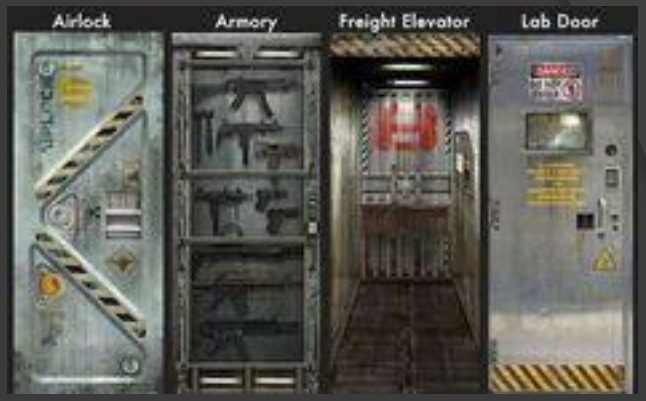
Game Developers

- Designer
- Producer
- Programmer
- Artists 2D/3D
- Audio
- QA
- Publisher
- PR

Doors

http://www.lizengland.com/blog/2014/04/the-door-problem/

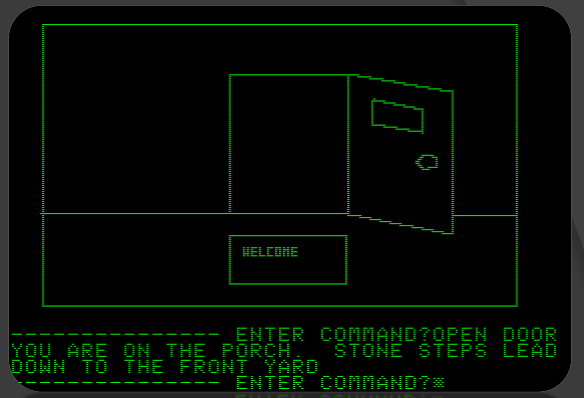
Game Developers



Designer

- Are there doors in your game?
  - Can the player open them?
  - Can the player open every door in the game?
- Or are some doors for decoration?
  - How does the player know the difference?
  - Are doors you can open green and ones you can't red?
  - Is there trash piled up in front of doors you can't use?
  - Did you just remove the doorknobs and call it a day?
- Can doors be locked and unlocked?
  - What tells a player a door is locked and will open, as opposed to a door that they will never open?
  - Does a player know how to unlock a door? Do they need a key?
  - To hack a console?
  - To solve a puzzle?
  - To wait until a story moment passes?
- Are there doors that can open but the player can never enter them?
- Where do enemies come from?
  - Do they run in from doors?
  - Do those doors lock afterwards?

Game Developers

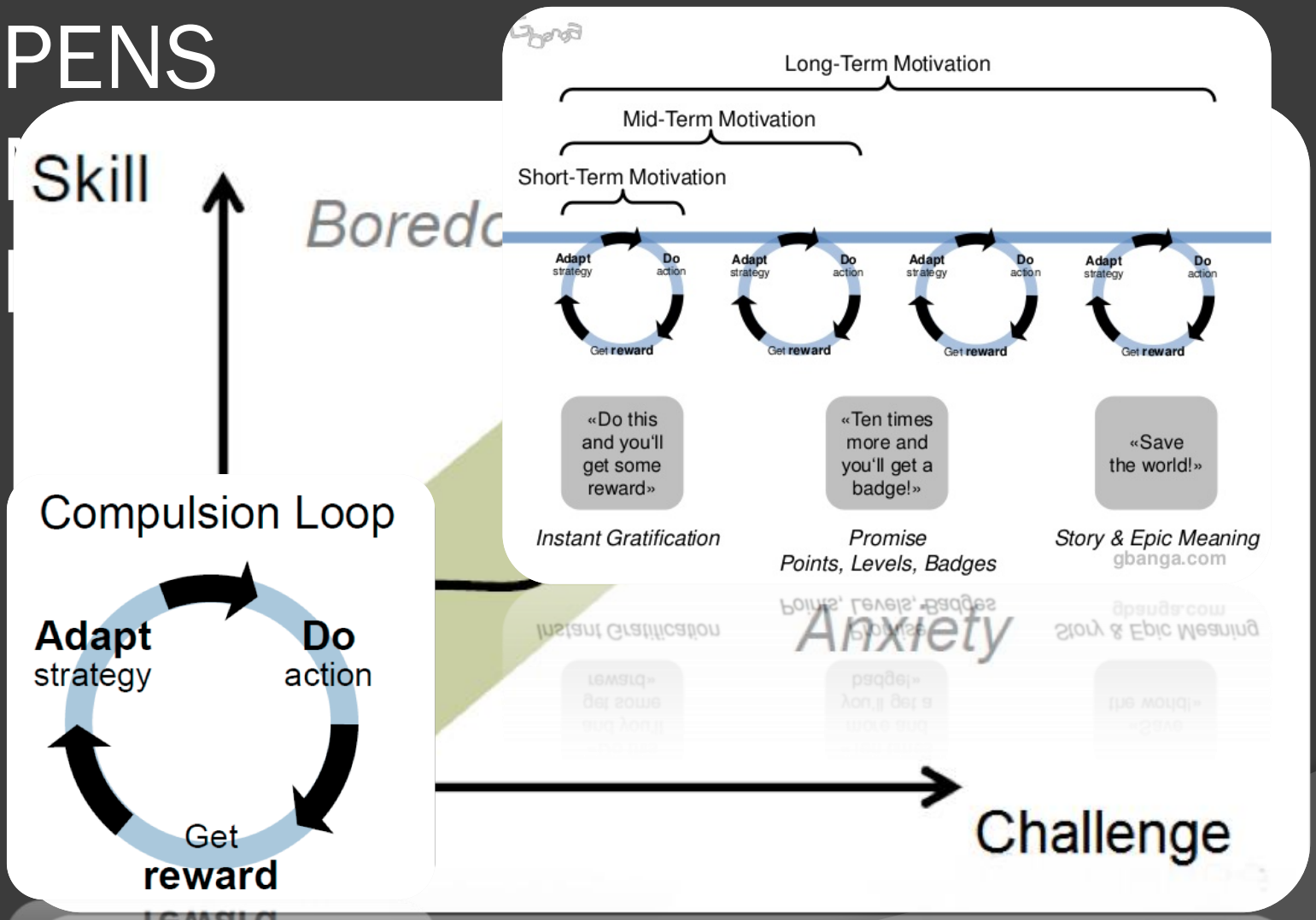


- Designer
- How does the player open a door?
  - Do they just walk up to it and it slides open?
  - Does it swing open?
  - Does the player have to press a button to open it?
- Do doors lock behind the player?
- What happens if there are two players?
  - Does it only lock after both players pass through the door?
  - What if the level is REALLY BIG and can't all exist at the same time?
  - If one player stays behind, the floor might disappear from under them. What do you do?
  - Do you stop one player from progressing any further until both are together in the same room?
  - Do you teleport the player that stayed behind?
- What size is a door?
- Does it have to be big enough for a player to get through one at a time or both?
- What about co-op players?
  - What if player 1 is standing in the doorway – does that block player 2?
  - What about allies following you?
  - How many of them need to get through the door without getting stuck?
- What about enemies? Do mini-bosses that are larger than a person also need to fit through the door?

What Professions Worked On That Game?

- Designers
  - Game Designers
  - Level Designers
  - Art Designers
  - UX Designers

Game Theory: What Is Fun? PENS



What Professions Worked On That Game?

- Programmers (make the door open)
  - AI
  - Physics
  - Graphics
  - Rendering
  - Tools
  - Gamelogic
  - Menu

What Professions Worked On That Game?

- Artist (make the door)
  - 2D Artists (concept art)
  - Menu Artists
  - 3D Artists
  - SFX Artists
  - Texture Artists
  - Animators
  - Character modelers
  - Level Builders

What Professions Worked On That Game?

- Musicians (give the door sound)
  - Composers
  - Sound FX
  - Menu
  - Voice Overs (actors)

What Professions Worked On That Game?

- Writers (tell the player how to open door)
  - Story
  - Dialogue
  - Loading Screens/Menus

- Creative Director: “Yes, we definitely need doors in this game.”
- Project Manager: “I’ll put time on the schedule for people to make doors.”
- Designer: “I wrote a doc explaining what we need doors to do.”
- Concept Artist: “I made some gorgeous paintings of doors.”
- Art Director: “This third painting is exactly the style of doors we need.”
- Environment Artist: “I took this painting of a door and made it into an object in the game.”
- Animator: “I made the door open and close.”
- Sound Designer: “I made the sounds the door creates when it opens and closes.”
- Audio Engineer: “The sound of the door opening and closing will change based on where the player is and what direction they are facing.”
- Composer: “I created a theme song for the door.”
- FX Artist: “I added some cool sparks to the door when it opens.”
- Writer: “When the door opens, the player will say, ‘Hey look! The door opened!’ “
- Lighter: “There is a bright red light over the door when it’s locked, and a green one when it’s opened.”
- Legal: “The environment artist put a Starbucks logo on the door. You need to remove that if you don’t want to be sued.”
- Gameplay Programmer: “This door asset now opens and closes based on proximity to the player. It can also be locked and unlocked through script.”
- AI Programmer: “Enemies and allies now know if a door is there and whether they can go through it.”
- Network Programmer: “Do all the players need to see the door open at the same time?”
- Release Engineer: “You need to get your doors in by 3pm if you want them on the disk.”

- Release Engineer: “You need to get your doors in by 3pm if you want them on the disk.”
- Core Engine Programmer: “I have optimized the code to allow up to 1024 doors in the game.”
- Tools Programmer: “I made it even easier for you to place doors.”
- Level Designer: “I put the door in my level and locked it. After an event, I unlocked it.”
- UI Designer: “There’s now an objective marker on the door, and it has its own icon on the map.”
- Combat Designer: “Enemies will spawn behind doors, and lay cover fire as their allies enter the room. Unless the player is looking inside the door in which case they will spawn behind a different door.”
- Systems Designer: “A level 4 player earns 148xp for opening this door at the cost of 3 gold.”
- Monetization Designer: “We could charge the player $.99 to open the door now, or wait 24 hours for it to open automatically.”
- QA Tester: “I walked to the door. I ran to the door. I jumped at the door. I stood in the doorway until it closed. I saved and reloaded and walked to the door. I died and reloaded then walked to the door. I threw grenades at the door.”
- UX / Usability Researcher: “I found some people on Craigslist to go through the door so we could see what problems crop up.”
- Localization: “Door. Puerta. Porta. Porte. Tür. Dør. Deur. Drzwi. Drws. 문”
- Producer: “Do we need to give everyone those doors or can we save them for a pre-order bonus?”
- Publisher: “Those doors are really going to help this game stand out during the fall line-up.”
- CEO: “I want you all to know how much I appreciate the time and effort put into making those doors.”
- PR: “To all our fans, you’re going to go crazy over our next reveal #gamedev #doors #nextgen #retweet”
- Community Manager: “I let the fans know that their concerns about doors will be addressed in the upcoming patch.”
- Customer Support: “A player contacted us, confused about doors. I gave them detailed instructions on how to use them.”
- Player: “I totally didn’t even notice a door there.”

GAMES ARE HUGE TO YOUR STUDENTS

Games are a huge part of your student's life

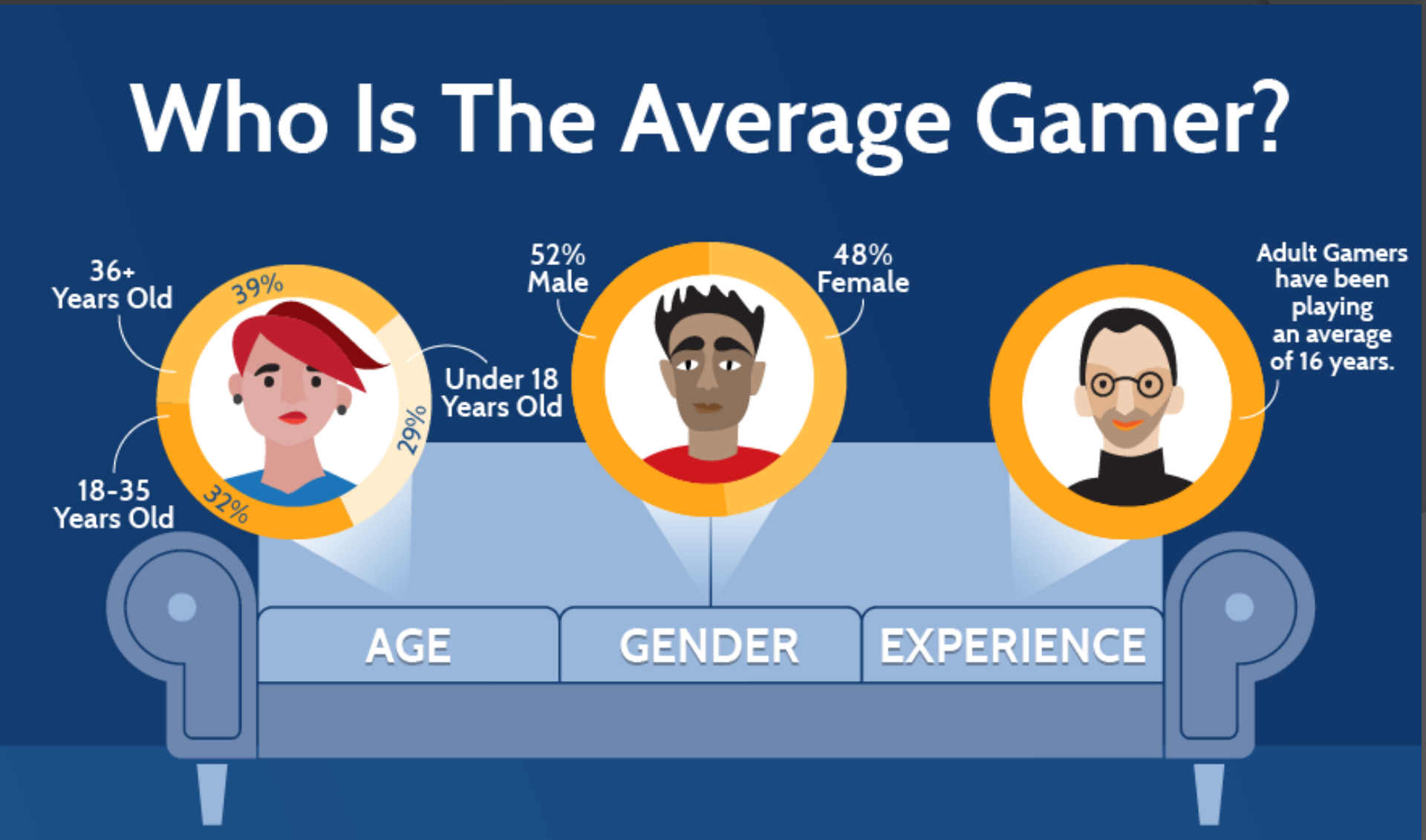
How Gaming Content is Taking Over YouTube

Minecraft was the second most searched query on YouTube in 2014. Gaming commentator PewDiePie ranked as 7th.

2014 Top YouTube Searches

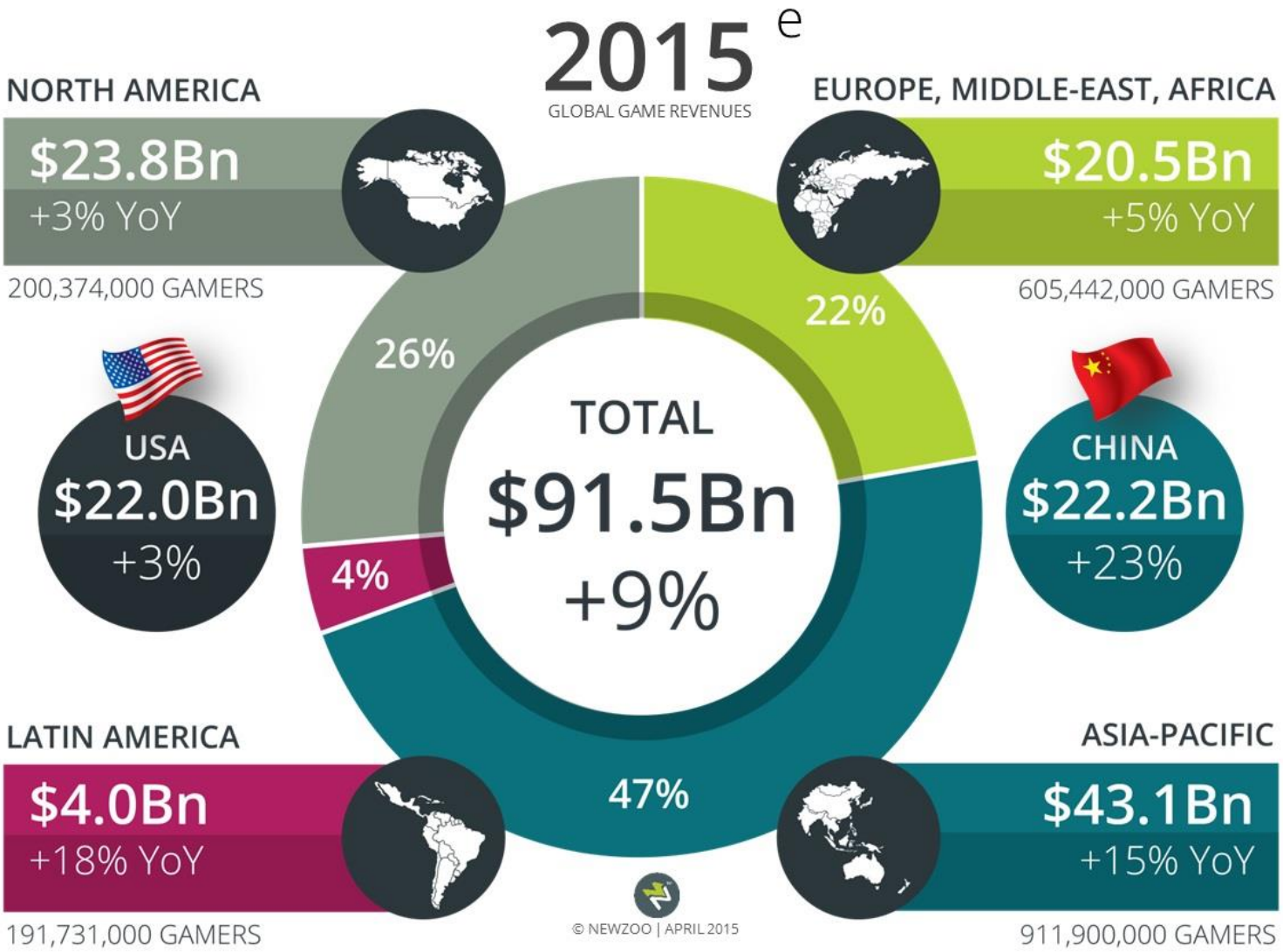
1. Music
2. Minecraft
3. Movies
4. Frozen
5. Drake
6. Beyonce
7. PewDiePie
8. Happy
9. Eminem
10. Taylor Swift

Gamers are older



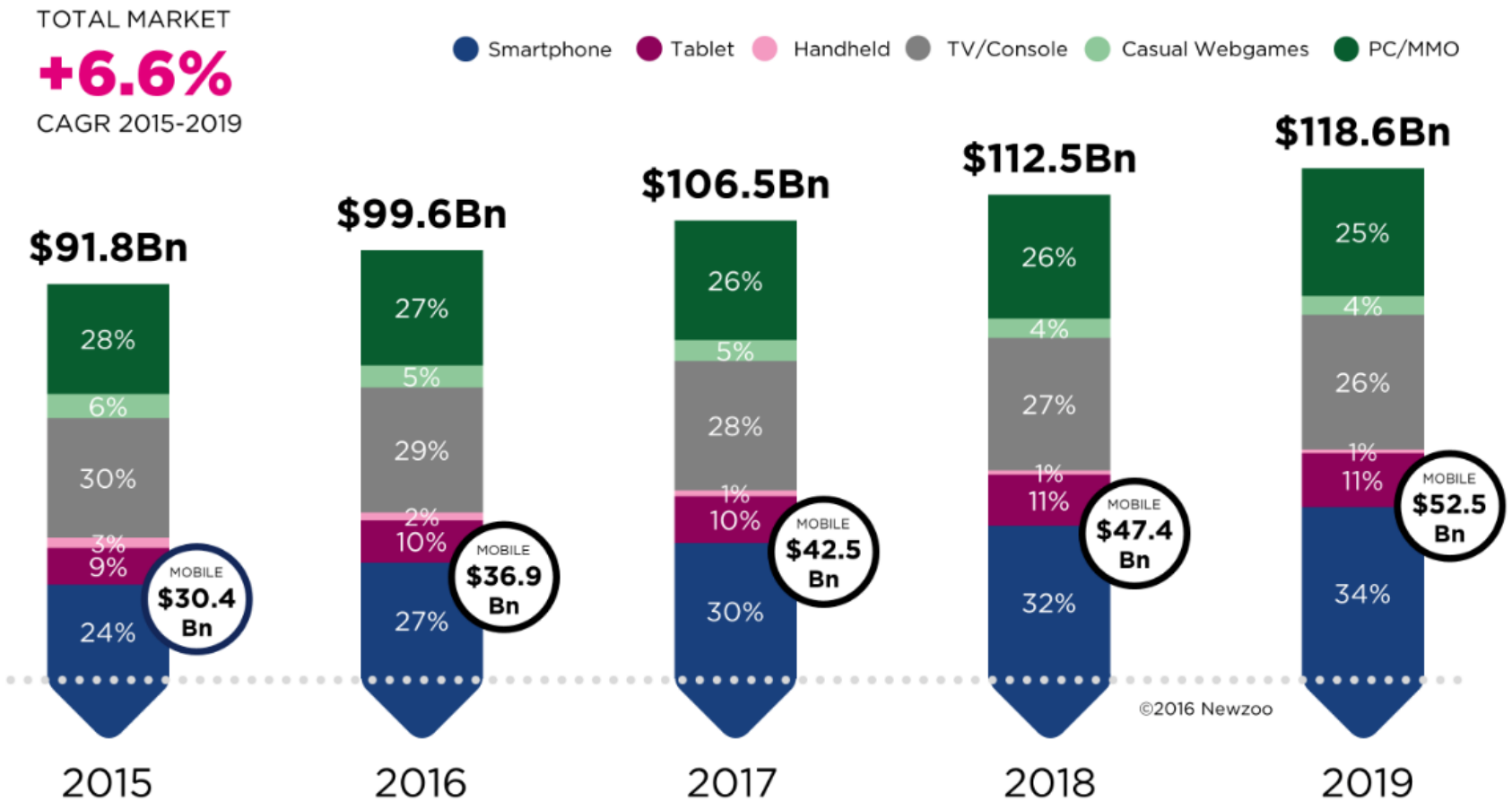
The Global Games Market | 2015e

Per Region | US and China Competing for Number 1



2015-2019 GLOBAL GAMES MARKET

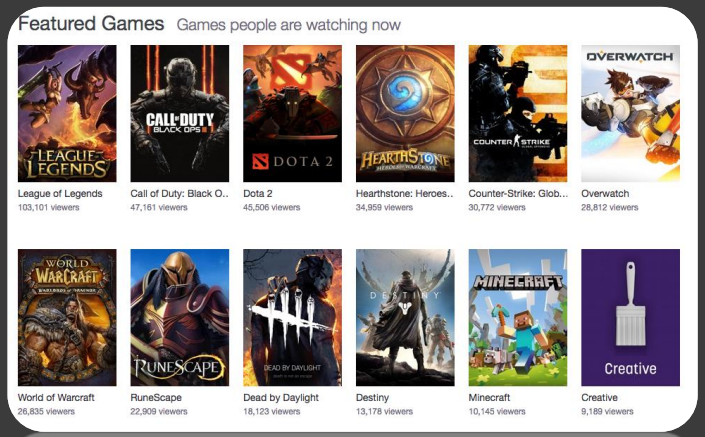
FORECAST PER SEGMENT TOWARD 2019

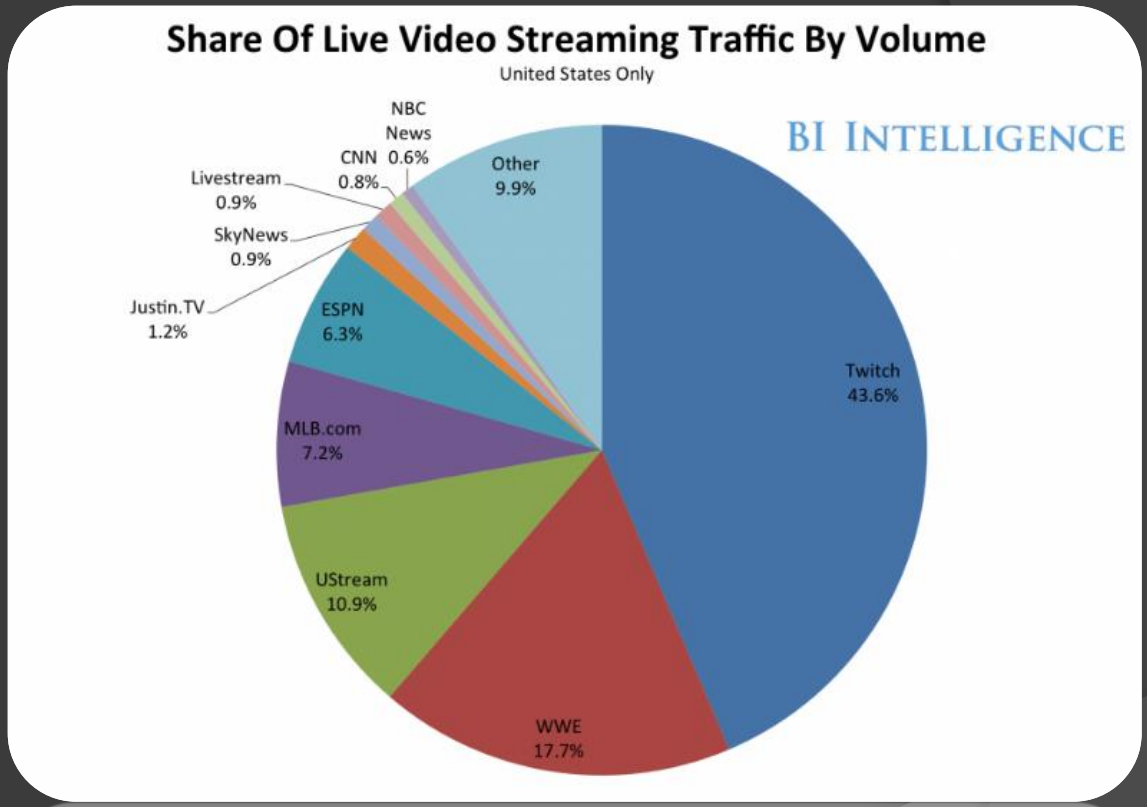


Source: ©Newzoo | Q2 2016 Update | Global Games Market Report Premium
newzoo.com/globalreportpremium/

newzoo

Amazon paid $1Billion





2 Companies Seek FDA Approval for Brain Games to Treat ADHD

SCIENTIFIC AMERICAN™

http://www.scientificamerican.com/article/2-companies-seek-fda-approval-for-brain-games-to-treat-adhd2/

Games are a huge part of your student's life

FAVORITES

Log in to ESPN or join to view your favorites

Sign Up

Log In

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Provided by Robert Paul

10h - Timothy Lee

Pro wrestler The Cleaner on Street Fighter V: 'Sometimes you lose sleep for the hobbies you love'

Hoping to bring an element of pro wrestling into the arena, The Cleaner managed to impress the audience at CEO 2016 who might've been unfamiliar with his name.

LATEST NEWS

Latest League of Legends new
As the League of Legends 2016 underway, follow all the news a

Latest Dota 2 news
Read news and notes about Do here.

Latest Hearthstone news
News and notes from the best players and matchups.

FEATURED

eSports = College Scholarships

INDUSTRY | LEGAL & REGULATORY | VERTICALS | ESPORTS BETTING FAQ | ODDS TRACKER

Home / Industry / The Old College Try: Pac-12 Conference Exploring Esports Launch This Year

The Old College Try: Pac-12 Conference Exploring Esports Launch This Year

Will Green, June 22, 2016 05:00 PDT @wfcgreen

The **Pac-12 Conference** is considering launching its new televised esports initiative with a short competition in **late Fall of 2016**, and a possible follow-up competition in **early 2017**, ESBR has learned.

The conference is reportedly considering organizing **shorter, three- or four-day tournaments**, pegged to **existing Pac-12 championship events** in NCAA-sanctioned sports, as opposed to a multi-week league.

The tournaments would be among the first collegiate esports competitions ever to take place entirely within the parameters of an existing Division I athletic conference. Current collegiate esports tournaments, such as the **University League of Legends Championship**, involve several schools across several NCAA divisions and conferences.

Polygon NEWS REVIEWS FEATURES VIDEOS FORUMS OPINION PLATFORMS MORE Search Games & Reviews

University of California, Irvine announces a League of Legends scholarship

UC Irvine will be the first public, state-run school to officially support esports

By Philip Kollar on Mar 30, 2016 at 2:00p @pkollar

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It's no shock that *League of Legends*, arguably the most popular game in the world, is huge on college campuses. By the start of 2016, six different private schools had developed scholarships based on the game, and hundreds more have student-run clubs dedicated to it. But today marks a huge milestone for *League* as an esport and for developer Riot

eSports Growth = Gambling

Gambling = Match Fixing

Casino.org WORLD'S ONLINE GAMING

NEWS HOME | FINANCIAL | LEGISLATION | SCANDALS | FAMOUS PLAYERS | SPORTS | M

News » Rumors » Esports' Match-fixing Problem Exposed by Korean Prosecutors Report

Esports' Match-fixing Problem Exposed by Korean Prosecutors Report

APRIL 25, 2016 BY DAVID SHELDON

A Korean police report into a StarCraft match-fixing scandal makes depressing reading for followers of esports and the nascent betting industry that is growing up around professional video gaming.

StarCraft "SuperStar" Lee "Life" Seung Hyun, whose arrest for mat
shocked the esports world. (Image: telkongaming.co.za

In January, Lee "Life" Seung Hyun, 19, the 2014 world champion and 2015 runner-up, was arrested by authorities on suspicion of throwing matches to benefit a betting syndicate.

He was indicted over the weekend along with another top player, Bung "Bbyong" Woo Yong, eight others, including financial backers and brokers. Seung Hyun is accused of throwing tw during the KeSPA Cup, for which he received $60,000 from the gambling ring. Woo Yong has charged with throwing one match, in January, for around $26,000.

GAMING

Esports Gambling Takes Off, But Match Fixing Remains

Professionalized video game play breeds gambling and scandal, because humans

By Joe Lemire

Jun 24, 2016 at 9:00 AM ET

SHARE SHARE

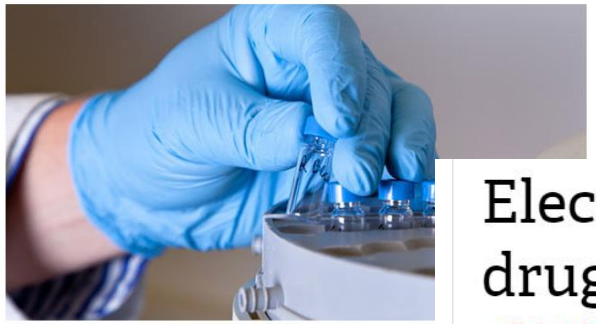
Gambling = Drug Testing

KOTAKU

Pro Gaming League Will Drug Test Its Players

Luke Plunkett
7/22/15 7:30pm · Filed to: ESPORTS

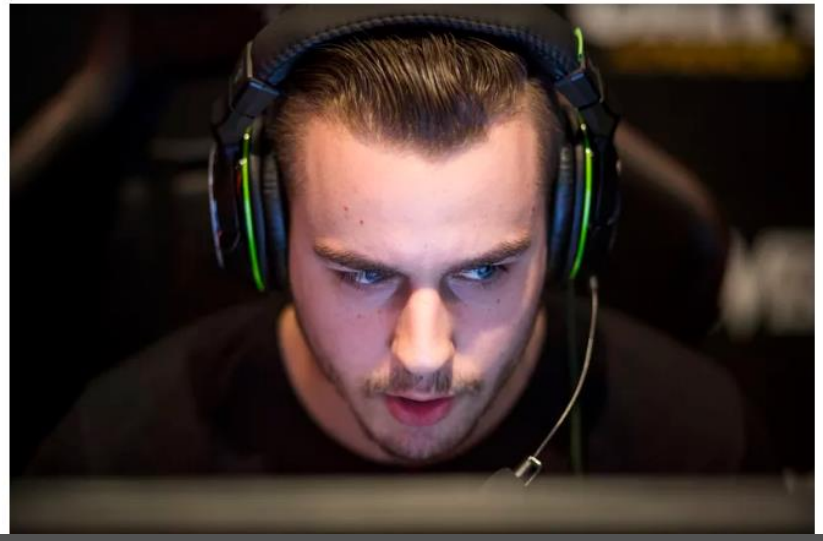
49.4K 154 11



In the wake of public admissions that a whole bunch of players have been taking the ADHD drug Adderall, the E Sports League) have announced plans to start drug test competitors.

Electronic Sports League reveals list of drugs banned from e-sports

By Chris Welch on August 12, 2015 03:12 pm Email @chriswelch



THE LATEST HEADLINES

Fujifilm announces a newer, faster instant printer for your phone

Play a new episode for old Quake from the Wolfenstein: The New Order studio

How many catch phrases did you catch in the Game of Thrones finale?

Save Browser

RESOURCES: GAME ENGINES

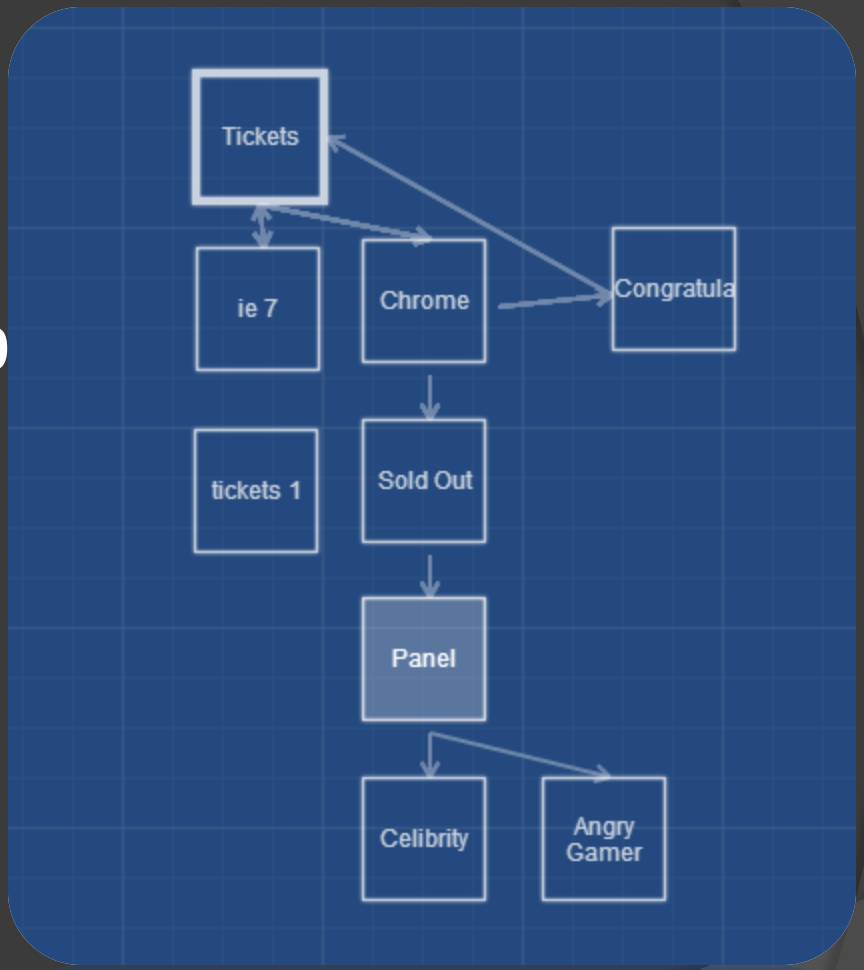
Text Game

Simple Graphics

Simple to Complex Op

- Difficult to Share

Advice: Plan Ahead

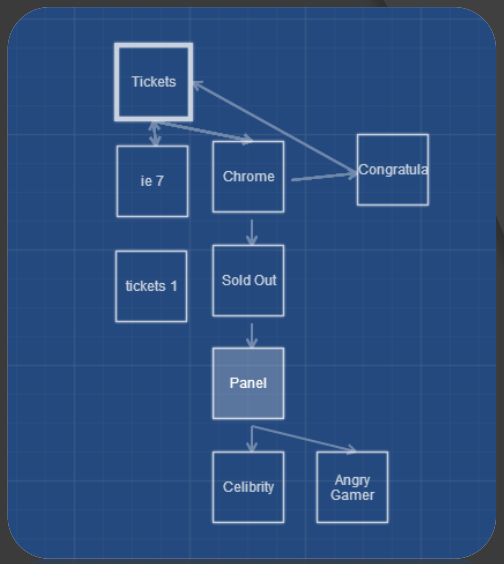


TWINERY.ORG
Free

Simple Graphics

Simple to Complex Options

- Difficult to Share



Gamepress
iPad: Free

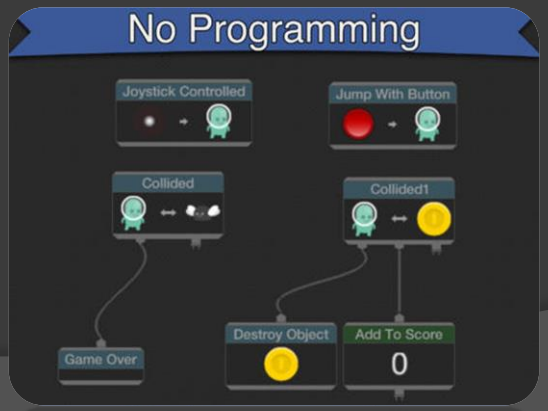
Complete Graphical Object Programming Tool Chest

No Typing Required

Make Complete Games

(score, lives, jumping, shooting, levels, etc.)

Use your own art.



Sploder.com
Web: Free

Make Your Own Games

Existing Templates

(platformer, topdown shooter, Angry Birds/Physics games)

Complete Tool Chest, but restrictions.

Can’t import art

Scratch.mit.edu
Web: Free

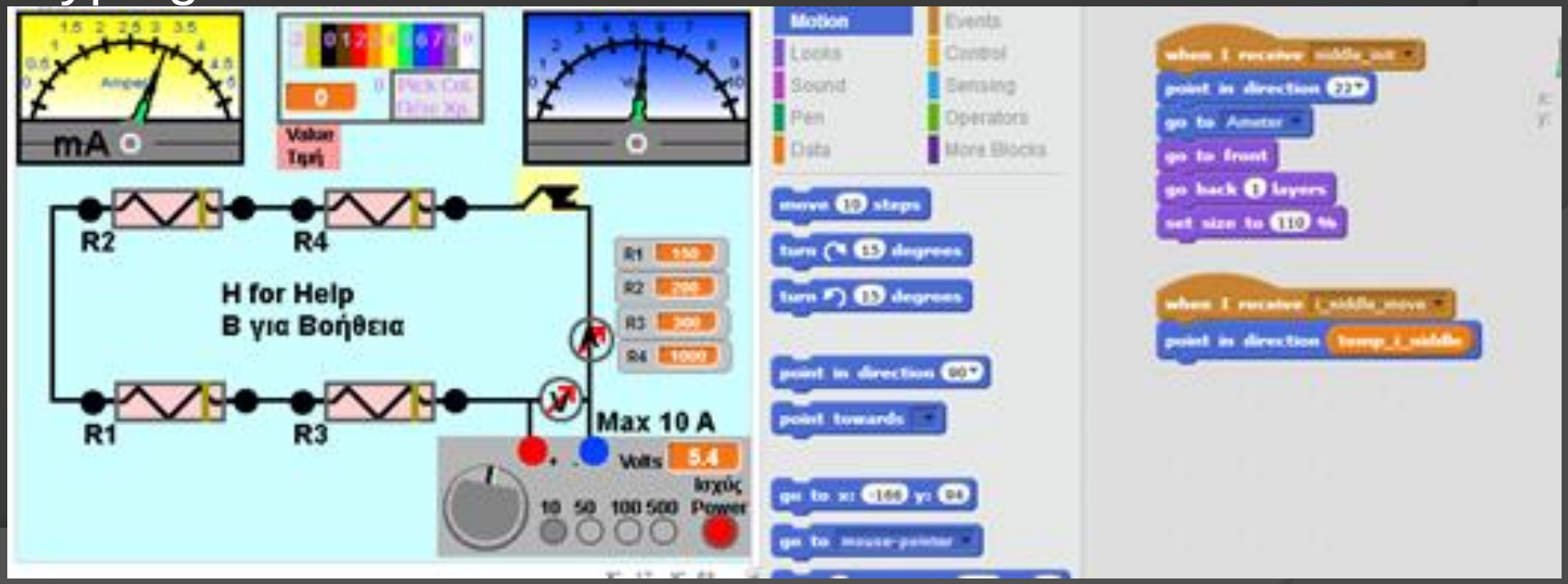
Robust Graphical Object Programming

Extremely Flexible

Great Tutorials, Books, Lesson Plans

2D Only

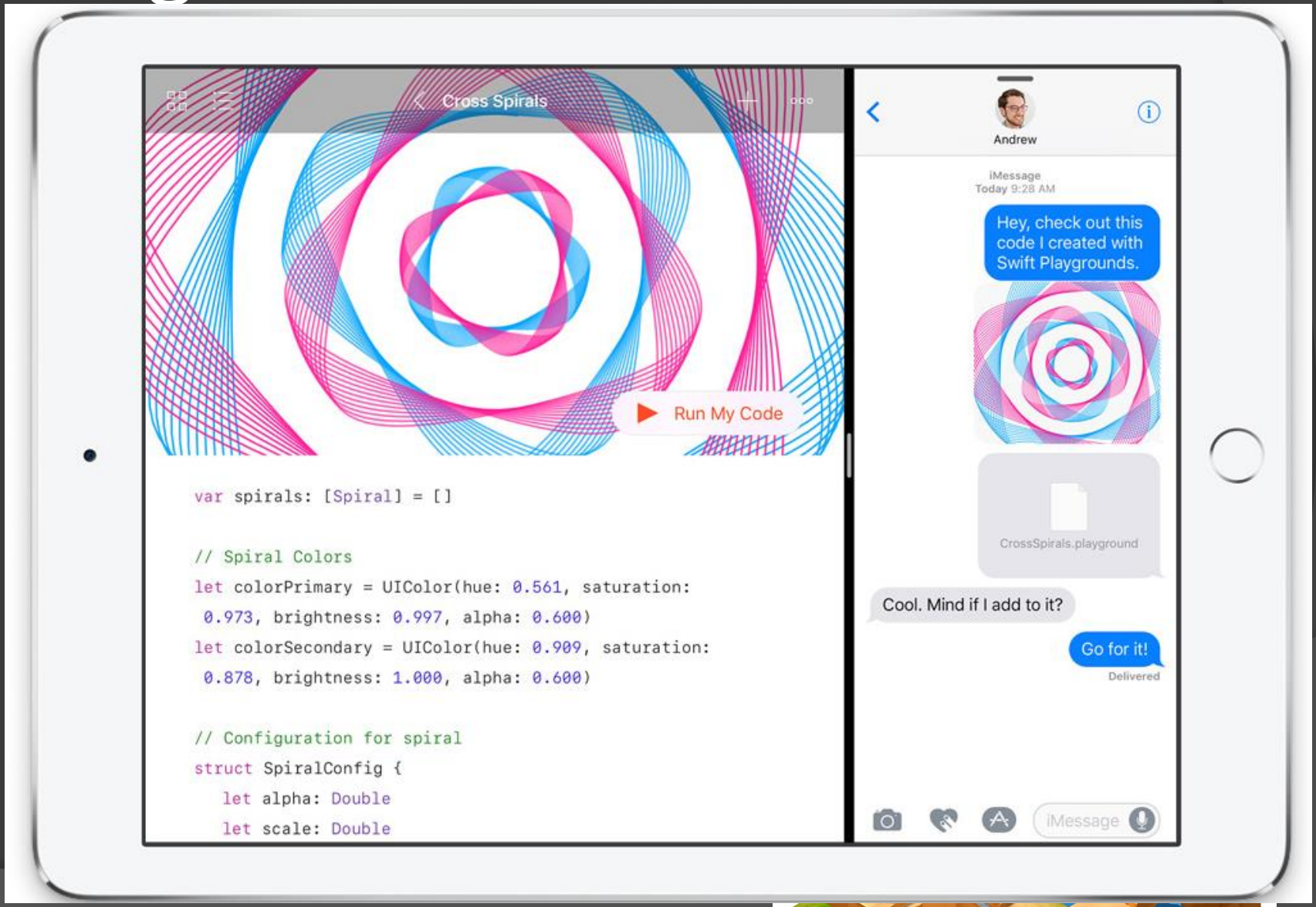
No Typing



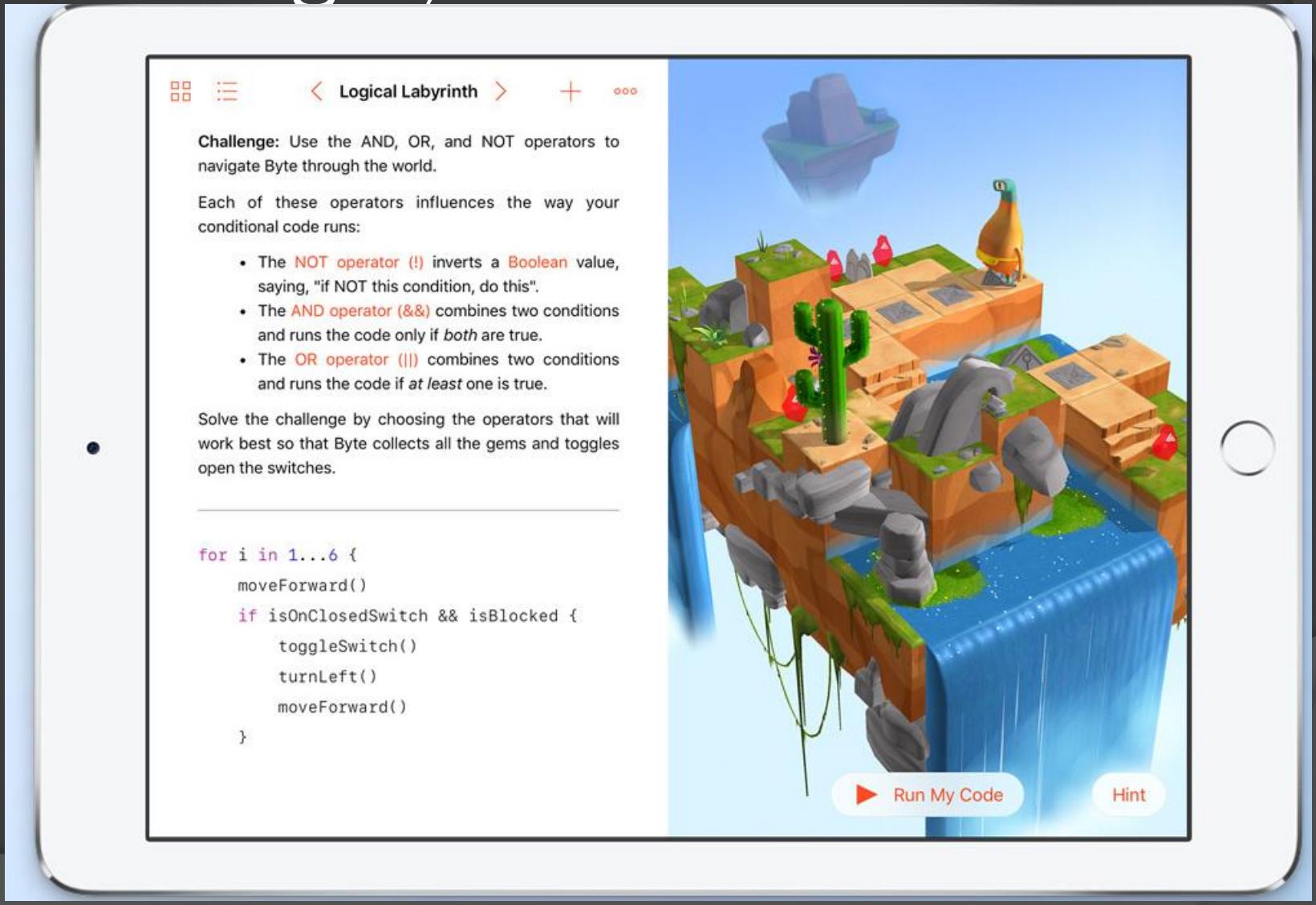
Swift Playgrounds From Apple

- Not a popular language
- But will run on all Apple products
- Designed to be concise and “resilient”
- New iPad support due this Fall

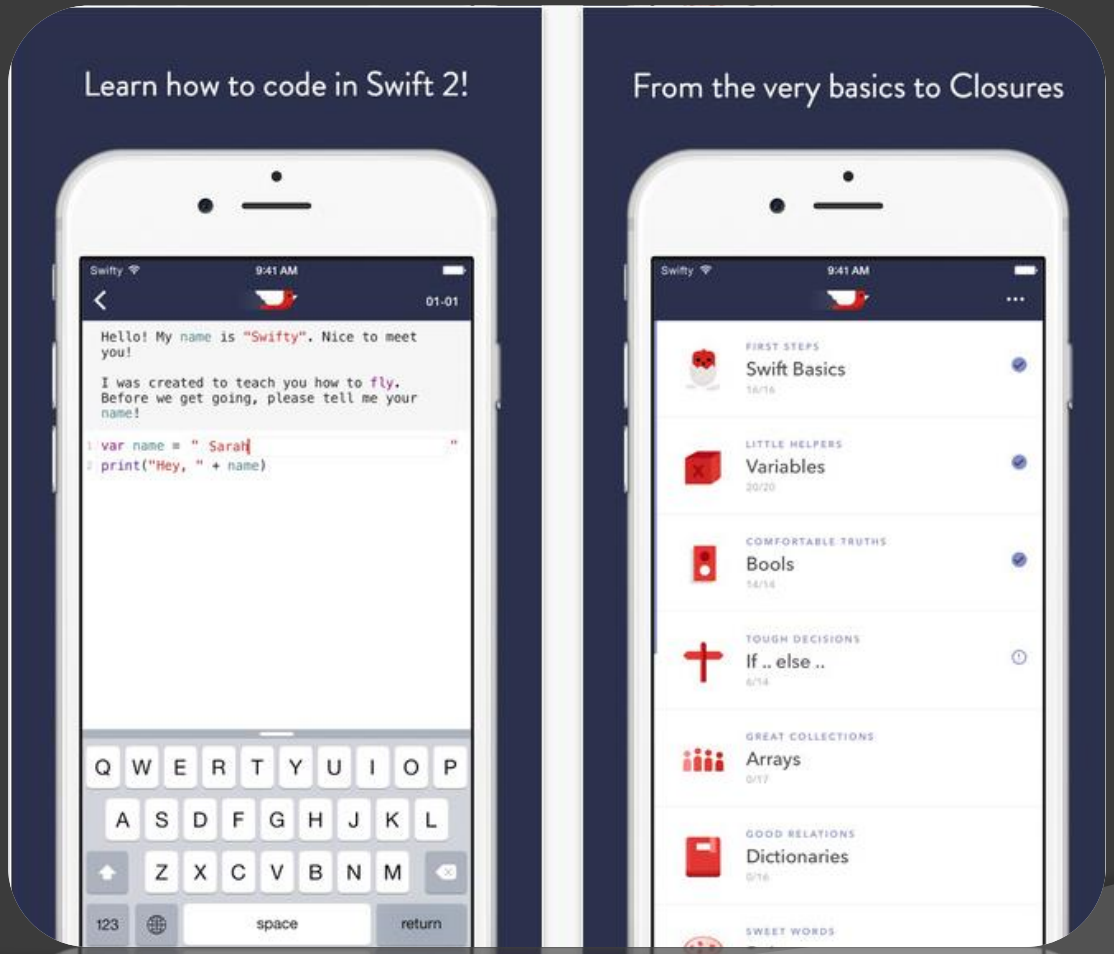
Swift Playgrounds
Integrated lessons



Swift Playgrounds Challenges, Tests



Swifly
iPhone/iPad, out now



Gamemaker

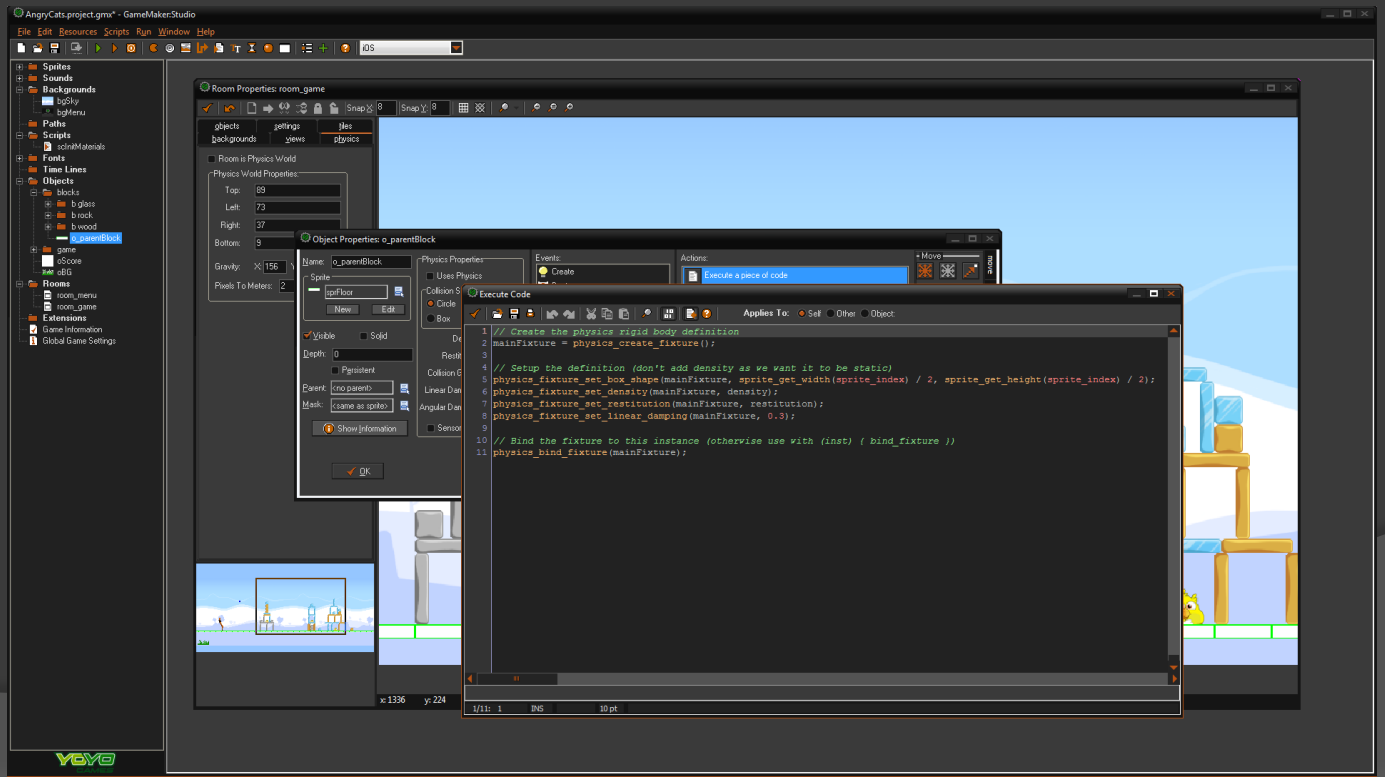
PC (Mac not supported) $50-$800

Graphical Object Programming and “Real” Code

Very Robust, Built for Games

Can Publish to iOS, Android, PC,

Not as Easy as Stencyl



Unity3D
PC Essentially Free -

"Real" Dev Tool, No Hand Holding

Very Robust, Built for Games including 3D

Can Publish to iOS, Android, PC, Wii, PSN, XBLA and more

Professional Development Tool

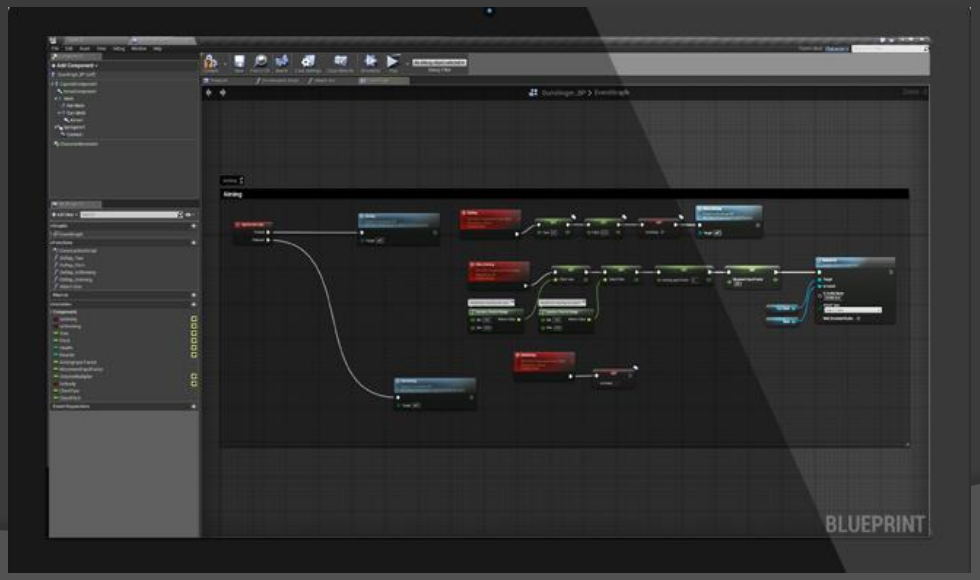
Unreal

"Real" Dev Tool, No Hand Holding

Very Robust, Built for Games including 3D

Can Publish to iOS, Android, PC, Wii, PSN, XBLA and more

Professional Development Tool



Sorting Hat

- www.sortingh.at
- Help decide which engine to use

GAMES FOR GOOD

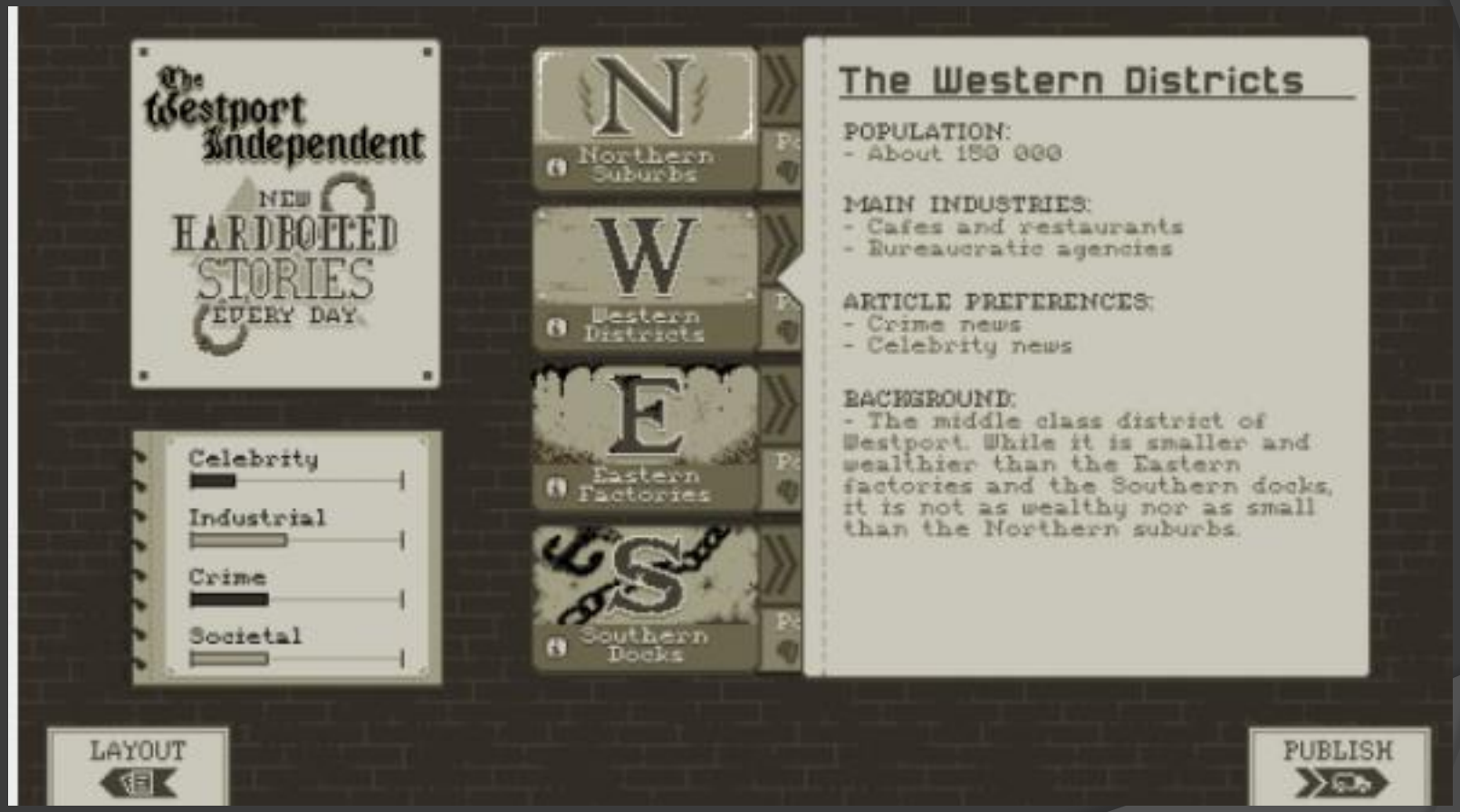
THIS
WAR
OF
MINE
IN WAR, NOT EVERYONE IS A SOLDIER

This War of Mine

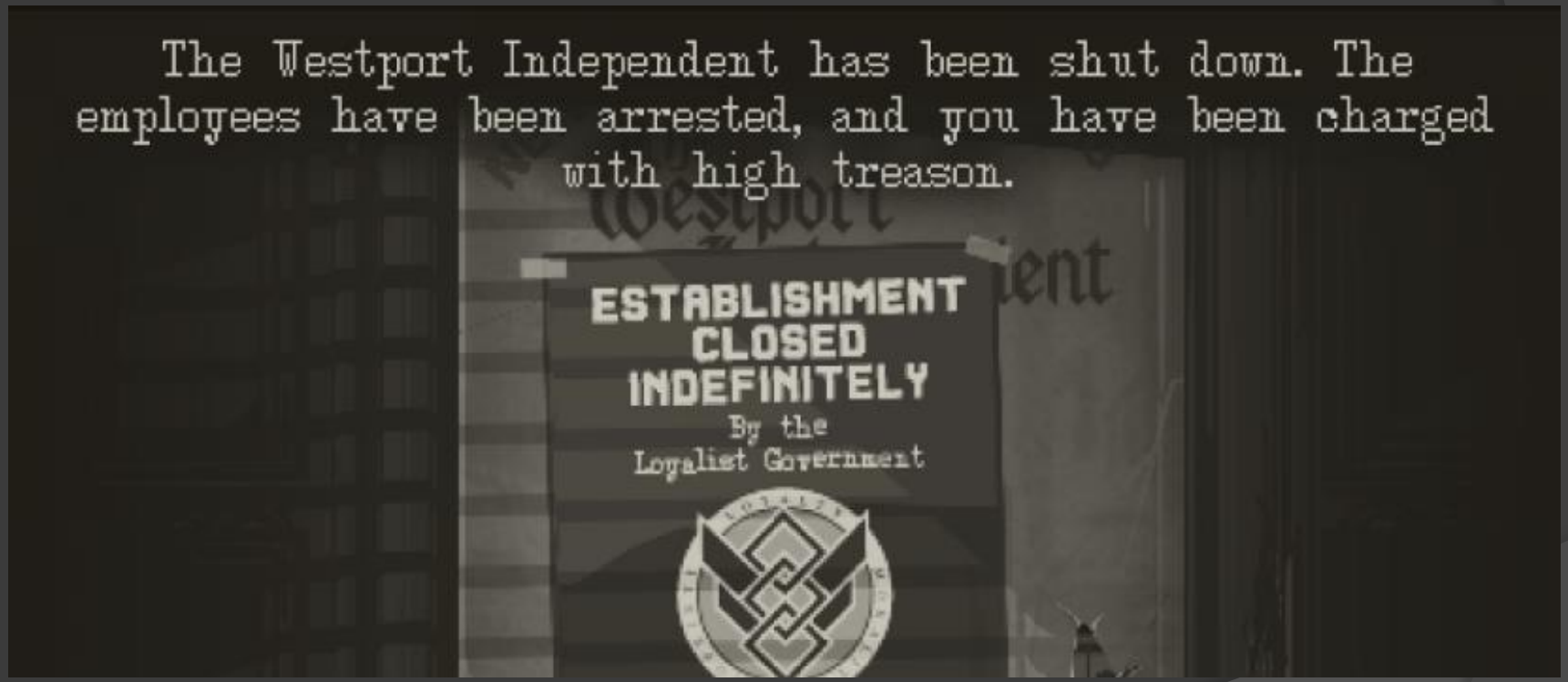
- Survive as a civilian in a war zone
- Food, Shelter, Medicine, Sleep, Warmth

Westport Independent

A game about Newspaper censorship



Stay open, keep staff alive, increase circulation. Do you lead population in revolt or roll over?



1979: Iranian Revolution

Photography the revolution. Which side do you support?

Cart Life
A game about income inequality

https://www.dropbox.com/s/dge9upd33fil3me/cartlife_1-6.zip

CHARACTER SELECT

ANDRUS SMOKING

PRESS THE LEFT OR RIGHT ARROW KEY TO NAVIGATE THIS MENU.

TO CONFIRM YOUR CHOICE, PRESS ENTER.

NAME: ANDRUS PODER

OPERATION: NEWSPAPER STAND

PRODUCT: | PRICE | SPEED

MONEY: $2250.00

NOTES: FOLLOWING MONTHS OF TURMOIL, ANDRUS IS SEEKING TO REBUILD HIS LIFE BY STARTING A NEWSPAPER STAND IN A NEW TOWN WITH HIS CAT, MR. GLEMBOVSKI.

CHALLENGE:

SPECIAL:

ADDICTION:

WORK HARDER.
HARD WORKER.
TM

Papers, Please

Time/Resource Management

Dystopian Future, catch smugglers, feed your family

SimCity/Skylines

Urban Planning (taxes, roads, police and Aliens)

SimCity
SAN FRANCISCO
CITY
BUDGET
DISASTERS
ENERGY
POPULATION
MAXIS
Distributed By
Broderbund
The City Simulator

Football Manager Rules Education

LOCAL

FOOTBALL MANAGER COULD BECOME PART OF PE HOMEWORK AT SCHOOLS

A TEACHER today said video games, such as Football Manager, could be introduced to PE classes in North-east schools.

The potential plans were discussed during a meeting of the Scottish Association of Teachers of Physical Education.

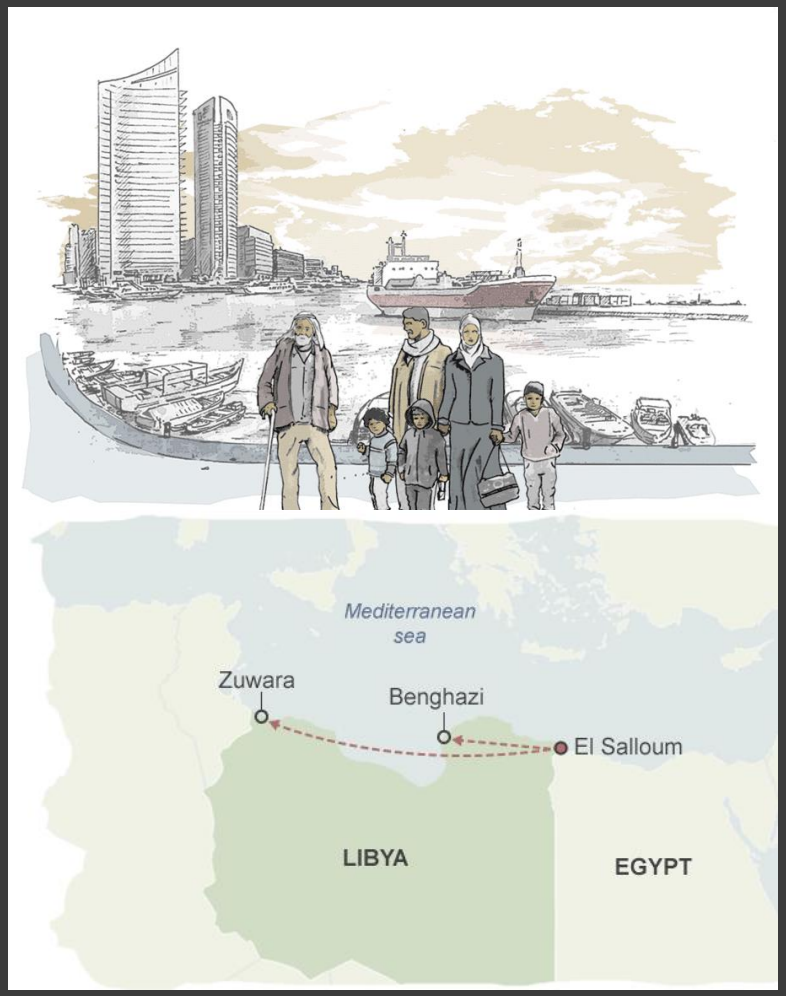
The concept was brought forward by Len Almond, former foundation director of the British Heart Foundation National Centre, and could see games such as Football Manager and Just Dance being introduced to physical education lessons.

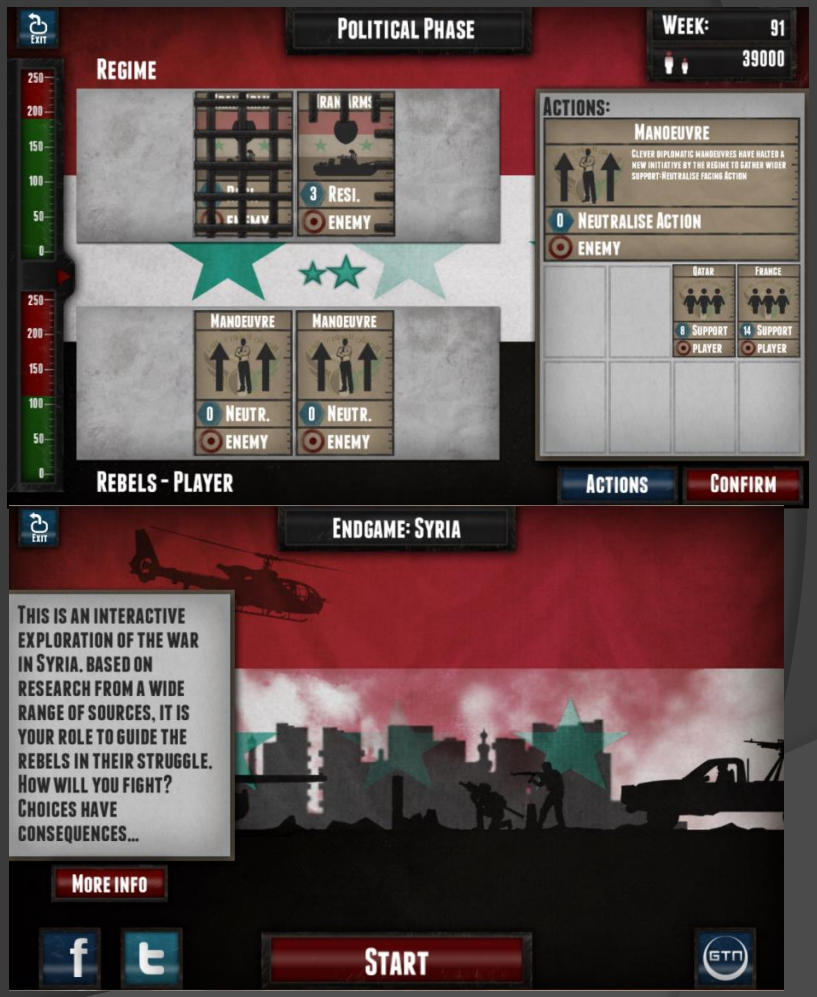
Football Manager

- Salary/Wage Budgets
- Math Principles, Averages
- Economic Basics Supply and Demand
- Wage Structure

http://www.guidetofootballmanager.com/squad/player-wages

Syria

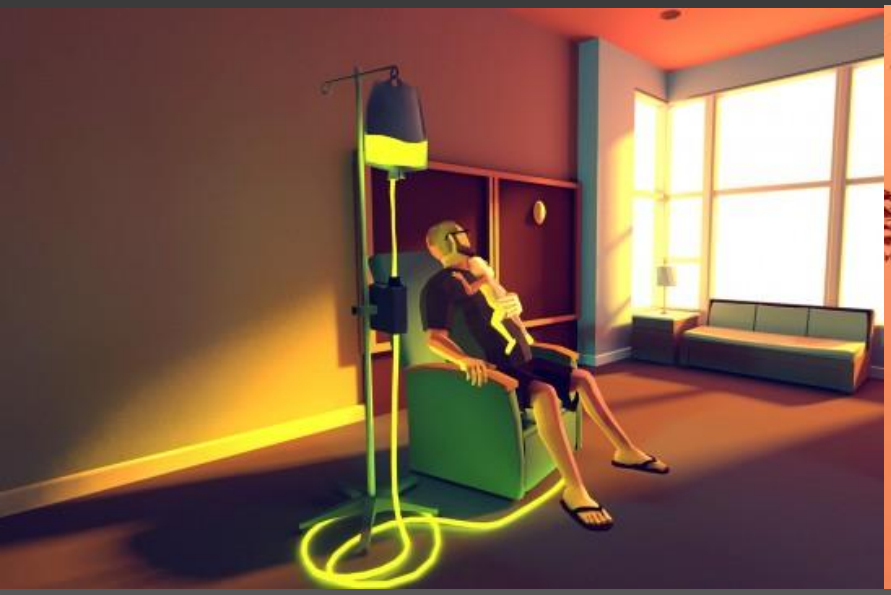




http://www.bbc.com/news/world-middle-east-32057601
http://www.desura.com/games/endgamesyria

That Dragon Cancer

- One family's interactive story of cancer, faith, love, hope and loss



ANNOUNCING MINECRAFT: EDUCATION EDITION

Arriving this summer, the new title aims to reach more educators around the world with a richer set of features and a thriving community.

MINECRAFT
EDUCATION EDITION

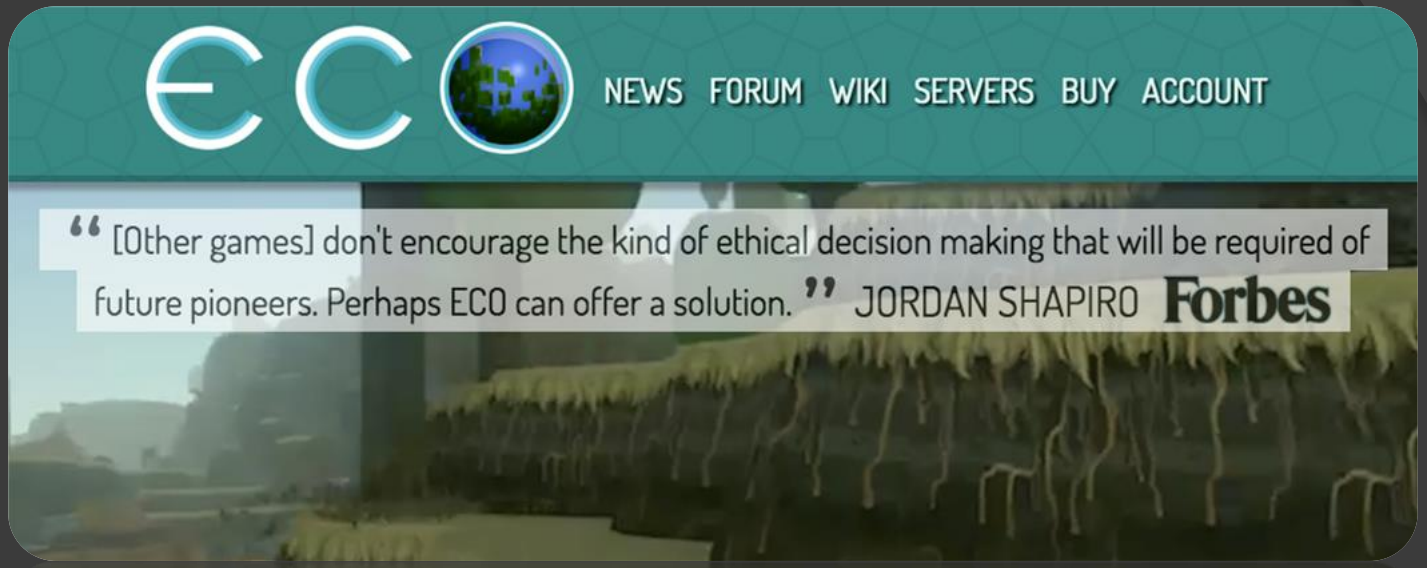
Lesson Plans

We have provided lessons spanning primary, intermediate, and secondary school for use with your students. Also consider existing curriculum that could be adapted to use Minecraft: Education Edition.

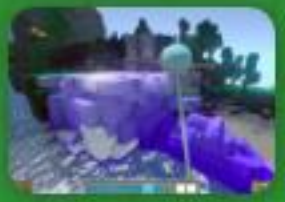
Ages 5-9	Ages 10-13	Ages 14+
Creating A Virtual Community	Preventing Urban Sprawl	City Planning
Factors & Multiples	Loss of Biodiversity	Sustainable Living
Landmarks In The Community	Ignoring Climate Change	Solar Planning
Story Setting	Fraction Stories	Rube Goldberg Machines
State History	Deforestation	
	Storytelling (Baddlands)	

Hey educators, want to submit your lesson plans and provide curricular resources for your peers? Click below to upload your lesson, and we'll get in touch when it's published.

http://education.minecraft.net/


ECO
NEWS FORUM WIKI SERVERS BUY ACCOUNT
“ [Other games] don't encourage the kind of ethical decision making that will be required of future pioneers. Perhaps ECO can offer a solution. ” JORDAN SHAPIRO Forbes

Follow Player
Show Property
Show Players
Day 1, 8:00 am
(487,21,499)
Nutrition: 5.8 daily skill points
Skill Points
4



How Pollution And Hydrology Work

How The Player-Run Criminal Justice System Works (PvP)

How Land Ownership Works

How The Player-Run Economy Works

CLASSROOM SPECIAL

$500

A digital copy of the game for every student and teacher in a classroom of your choice. Students for the next five years in that class will receive the game for free (up to 100 keys per year). Students will have the option to alpha/beta test the game as a group and participate in the development, listing their names in the credits if desired.

Unique ability to tame a wolf and a hare (applies to one user).

Access to source code and art assets of Eco. Ability to submit changes for possible integration. Direct connection with the team and ability to chat with them and share task planning.

Includes four digital copy of the game. Includes versions alpha, beta and final (Steam key). In-game icon as an alpha backer.

One membership on the development forums and Slack.

Civilization EDU (2017)

- Educational Support for Civilization
- Franchise since 1991
- Lesson Plans

www.engadget.com/2016/06/24/civilizationedu-takes-the-strategy-franchise-to-school/

Queue

KOLEJKA
BOARD GAME
行列
WARTESCHLANGE
LA QUEUE
QUEUE
ОЧЕРЕДЬ
QUEUE
INSTRUCTIO
WARTESCHLANGE
SPIELANLEITUN
行列
ОЧЕРЕДЬ
ИНСТРУКЦИЯ
LA QUEUE
INSTRUCTION
KOLEJKA
INSTRUCCIA

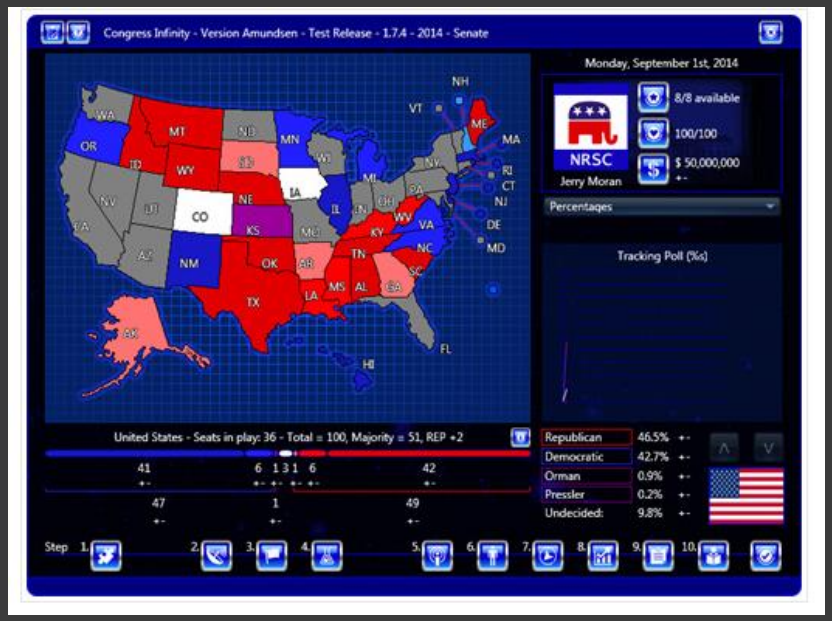
Videogames to treat PTSD via Exposure Therapy

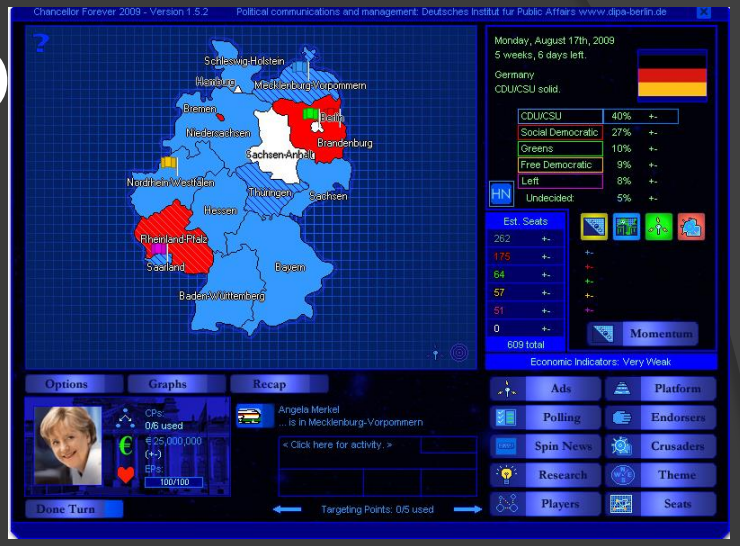
Tetris used to treat PTSD

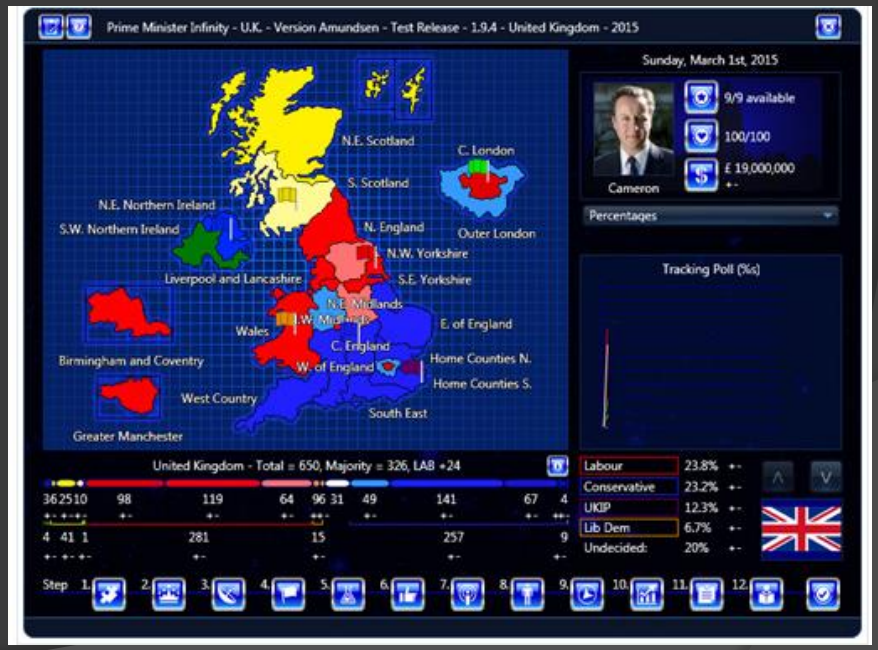
interrupts involuntary recall of traumatic events

http://www.militarytimes.com/story/military/benefits/health-care/2015/07/16/tetris-video-games-could-be-key-to-preventing-ptsd/30191539/

Election Simulatio

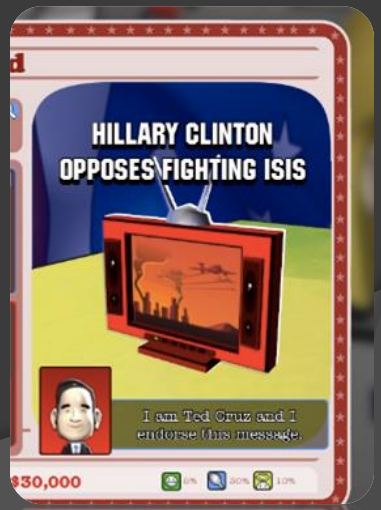






http://270soft.com/us-election-games/president-election-game-2016/

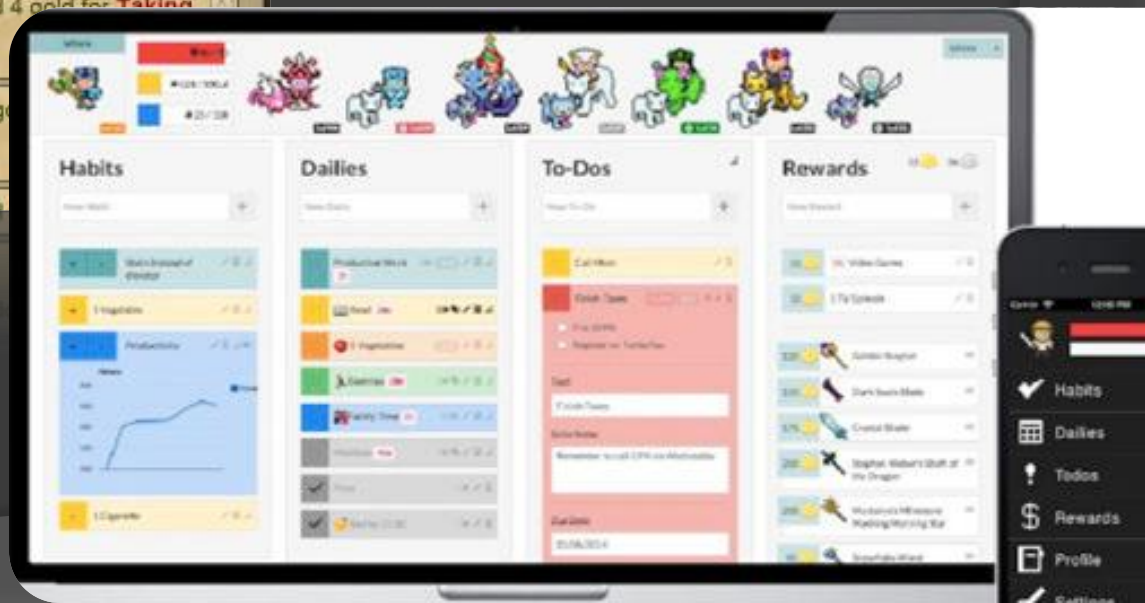
Buy ads
Hire advisors
Give speeches
Raise money
Win Endorsements



http://www.politicalmachine.com/

Chore Wars/Habit RPG

Turn Doing the Dishes and Taking Out the Trash into an RPG



CLASSCRAFT

- Gamification of your Classroom
- Reward students, analytics

Increases student motivation
through real risks and rewards.

Teaches meaningful collaboration
by placing students in teams and making their success interdependent.

Improves classroom behavior
by gamifying the classroom experience and making learning fun!

http://classcraft.com/

RESOURCES: ASSETS/TOOLS

Extra Credits

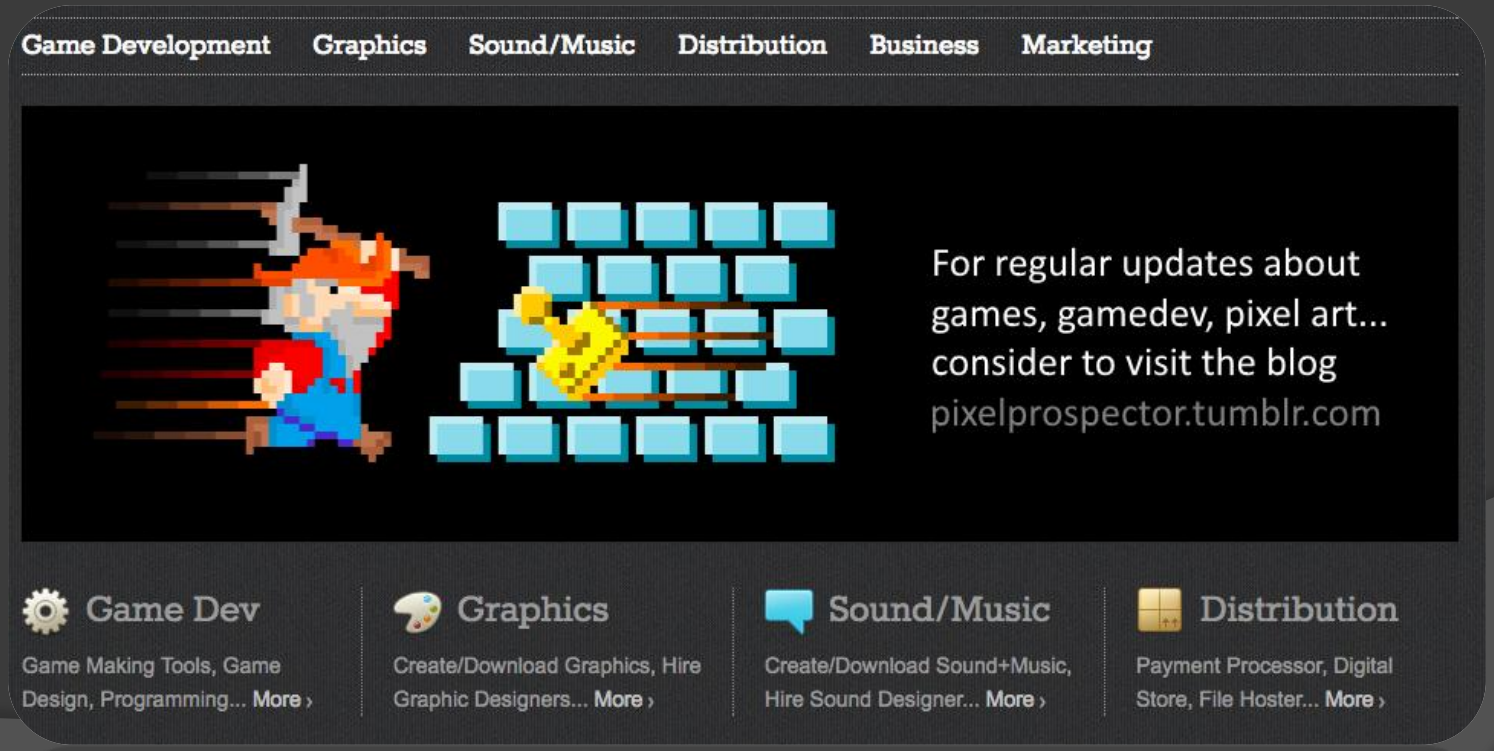
- www.youtube.com/user/ExtraCreditz
- Videos about game design, theory, history

Gamasutra

- www.gamasutra.com/
- Tech, Career tutorials

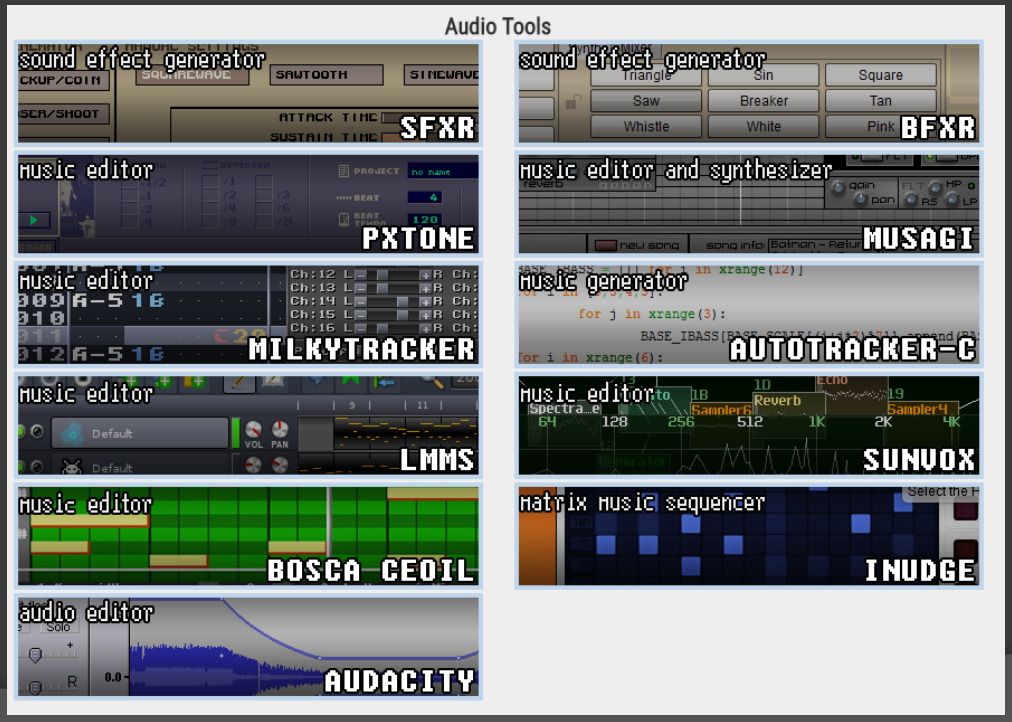
Pixel Prospector

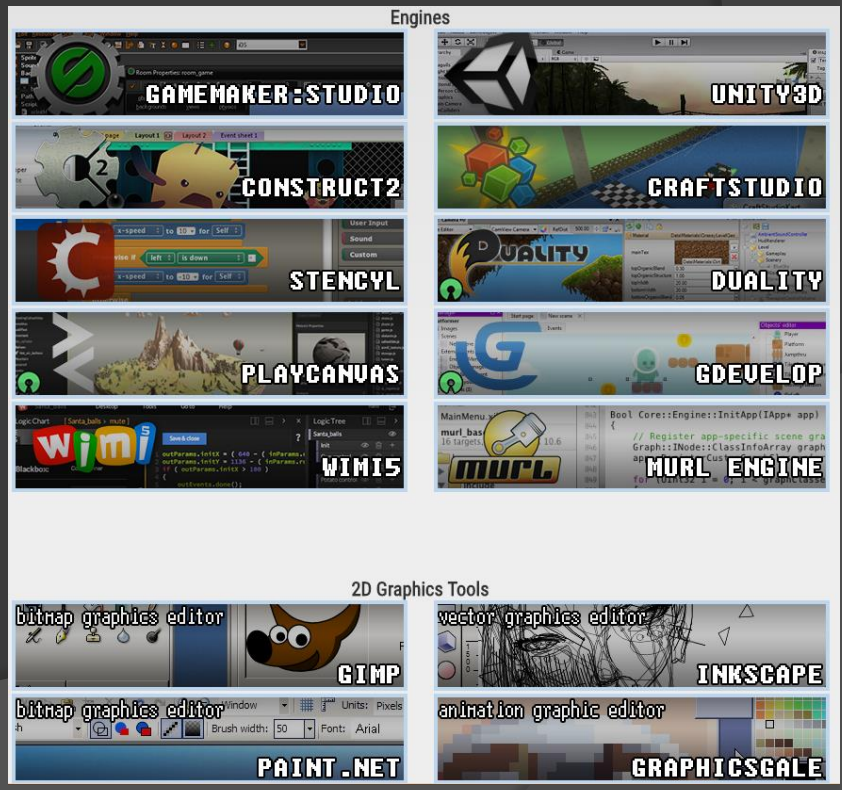
- www.pixelprospector.com
- Collection of Indie development assets and links



Ludum Dare Tool List

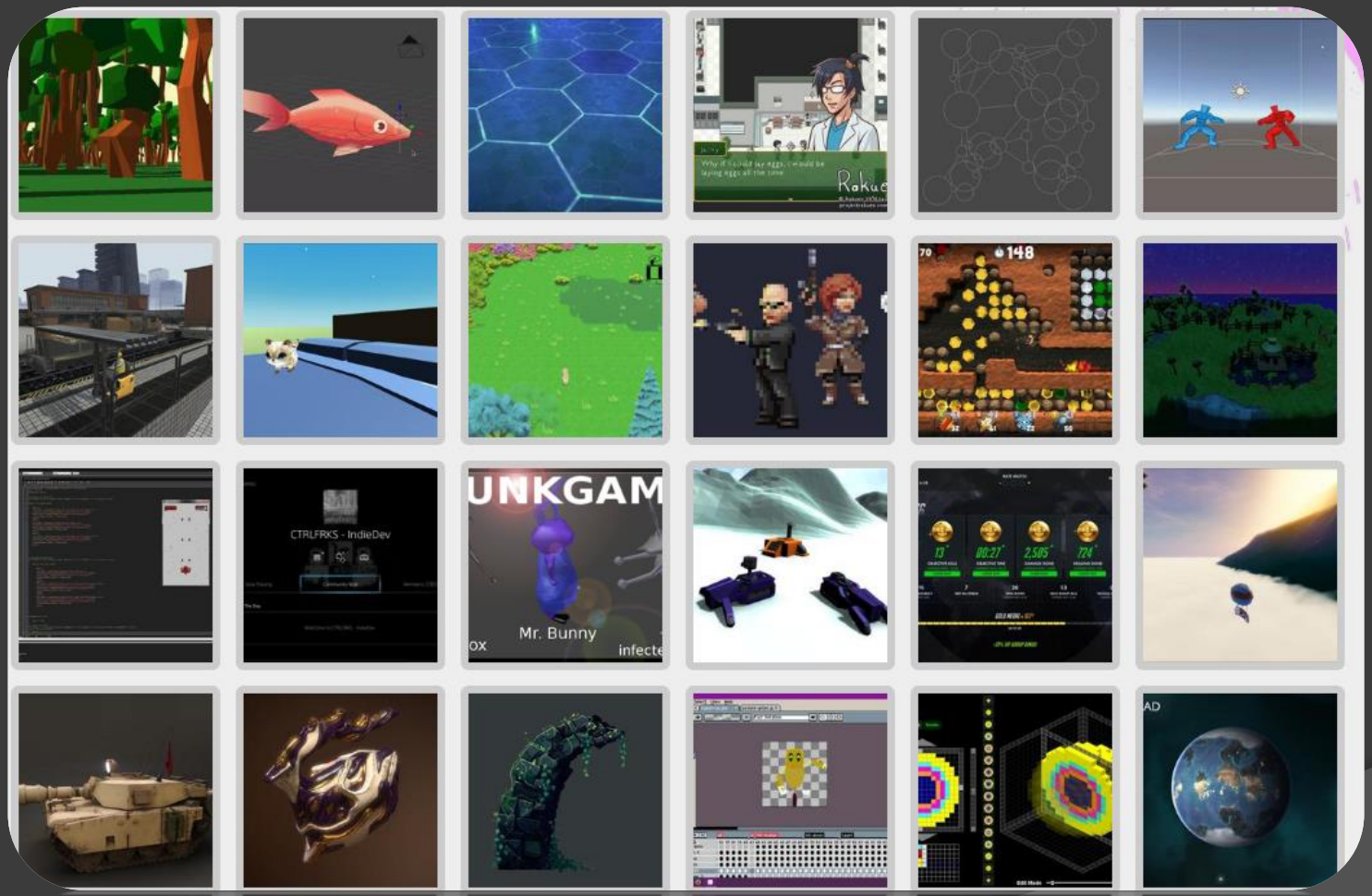
- http://ludumdare.com/compo/tools/
- Collection of Indie development assets and links





Hour of Code
Code.org

#screenshotsaturday



Engines (very partial list)

- Unity
  - unity3d.com
- Unreal
  - unrealengine.com
- GameMaker
  - yoyogames.com/gamemaker
- Scratch
  - scratch.mit.edu
- Twine
  - twinery.org

Miscellaneous Resources

- Business and Legal
  - www.gamesindustry.biz/
- Art Critic and Technical
  - polycount.com/
- VR Overview
  - www.roadtovr.com/
- Curated links to tutorials and assets
  - zeef.com
- VR Tutorials
  - github.com/misslivirose/learnvr
  - www.packtpub.com/books/content/cardboard-virtual-reality-everyone

Miscellaneous Resources

- International Game Developer Association
  - www.igda.org/
- Programming lessons
  - www.codecademy.com
- Math, Physic, Programming lessons
  - www.khanacademy.org
- Games for Change
  - www.gamesforchange.org/
- Pixar in a Box
  - www.khanacademy.org/partner-content/pixar

Miscellaneous Resources

- Black Girls Code
  - www.blackgirlscode.com/
- Girls Who Code
  - girlswhocode.com
- Women Programmer Bootcamp
  - adadevelopersacademy.org/
- learntocodewith.me/posts/13-places-women-learn-code/
- Women Programmer Support
  - www.girldevelopit.com

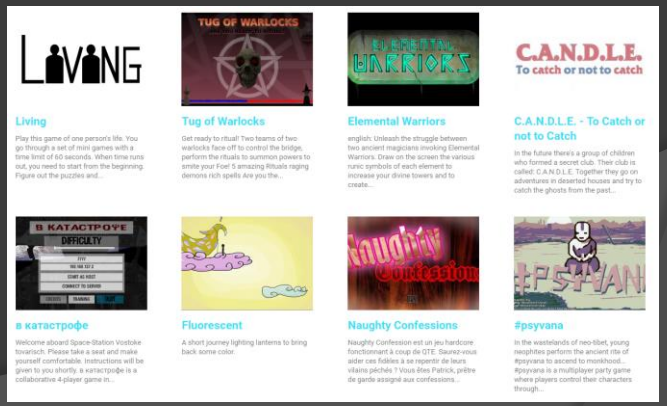
RESOURCES: GAME JAMS

Game Jam

- Make a game in a short time (2 – 7 days)
- Build a Community
- Learn new skills
- Hold your own
- Or join on line
- Theme Based

Global Game Jam

- World Wide
- Annual
- Very Large
- Very Organized
- Next one: January 20-22 2017
- Has events in Portugal



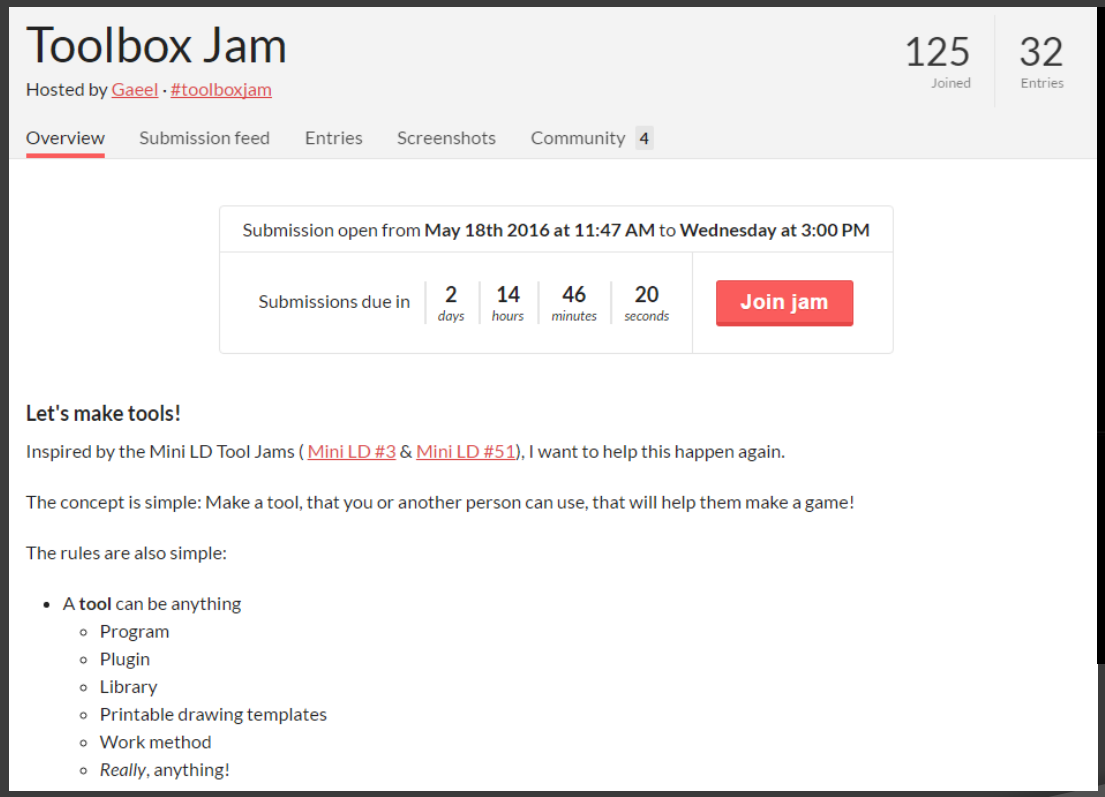
http://globalgamejam.org/

Ludum Dare

- World Wide
- More Frequent (every few months)
- Mini Ludum Dare

http://ludumdare.com/compo/

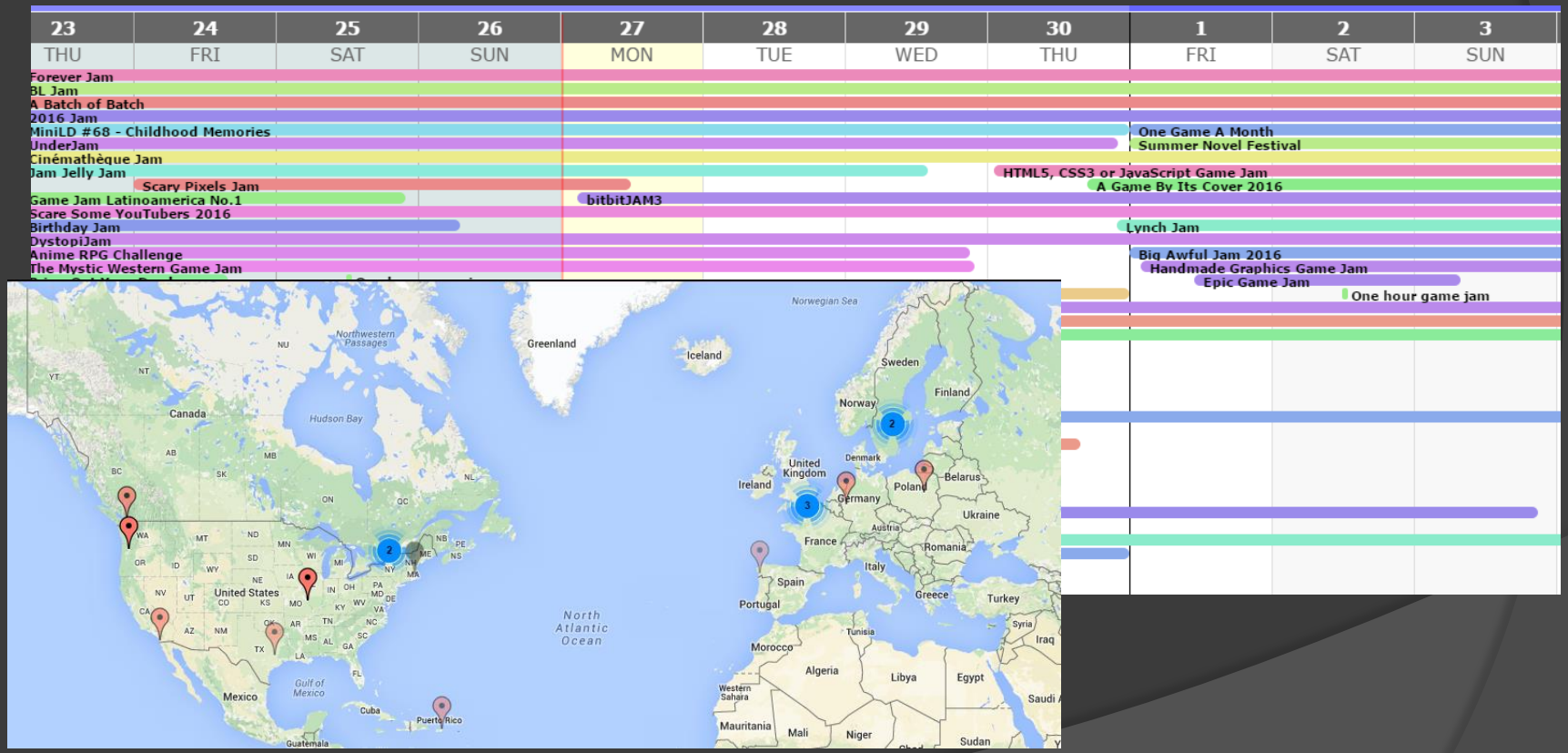
- Host Your Own Game Jam Construction Set



itch.io/docs/creators/game-jams/

INDIE GAME JAMS

- Find a Game Jam Near You



http://www.indiegamejams.com/

Train Jam

- Make a game on a train
- February 22-25 2017 on way to GDC
- (Game Developer Conference)

http://trainjam.com/faq/

RESOURCES: SPACE GAMES

SPACE GAMES

KERBAL
SPACE PROGRAM

Kerbal Space Program

- An approachable, serious simulation, with a goofy exterior.
- Design, test, build and fly your own rocket designs using realistic physics principles
- Educational version with lesson plans and standards alignment

http://www.kerbaledu.com/teaching

Orbiting Kerbin
Gene Kerman
Timewarping... T- 1h, 36m, 56s
[Esc] to Cancel
Pods
Name
Mass
Cost
Size
Launchpad
Place
113,734
kerbalspaceprogram.com

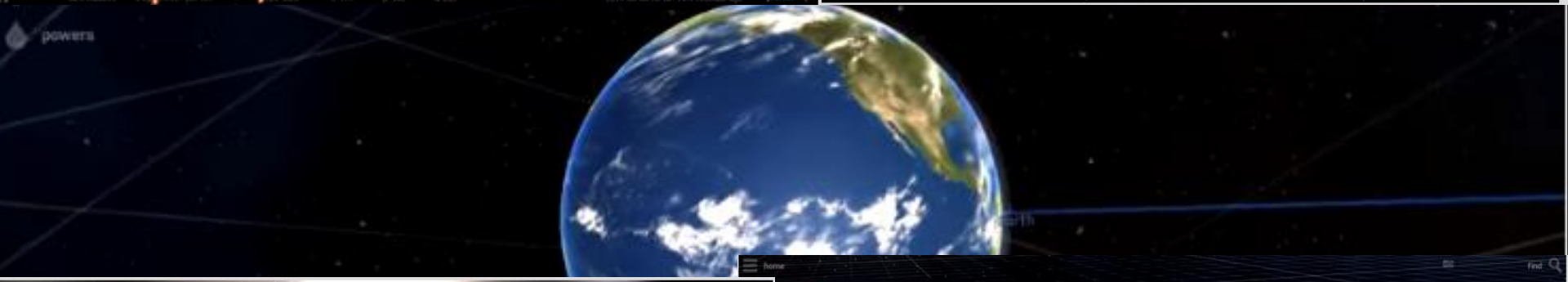
Apollo 11
VR EXPERIENCE

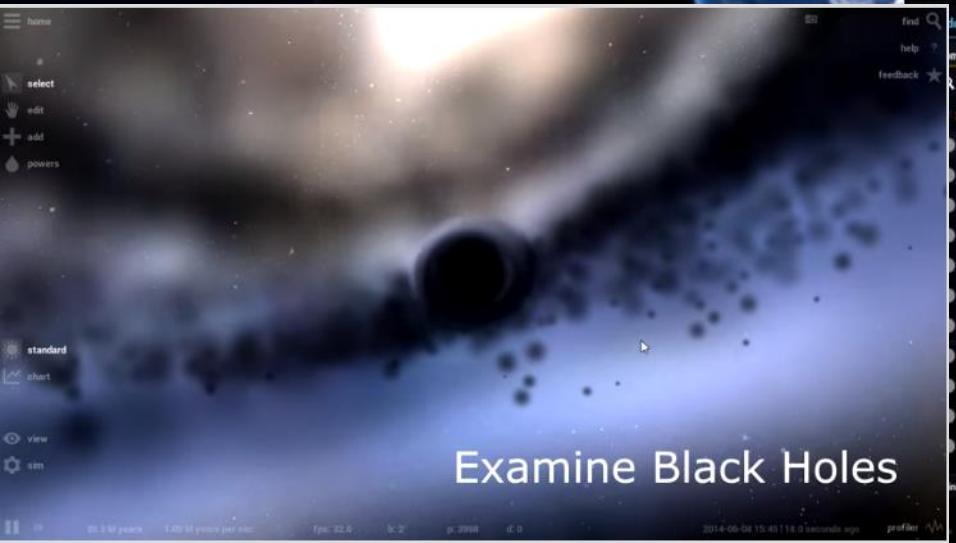
Apollo VR Mission

- Historically accurate spacecraft interiors and exteriors
- Original NASA cockpit audio and data from 1969
- Relive the entire mission

Bombard the Moon

Collide Galaxies




Examine Black Holes

Create Supernovas

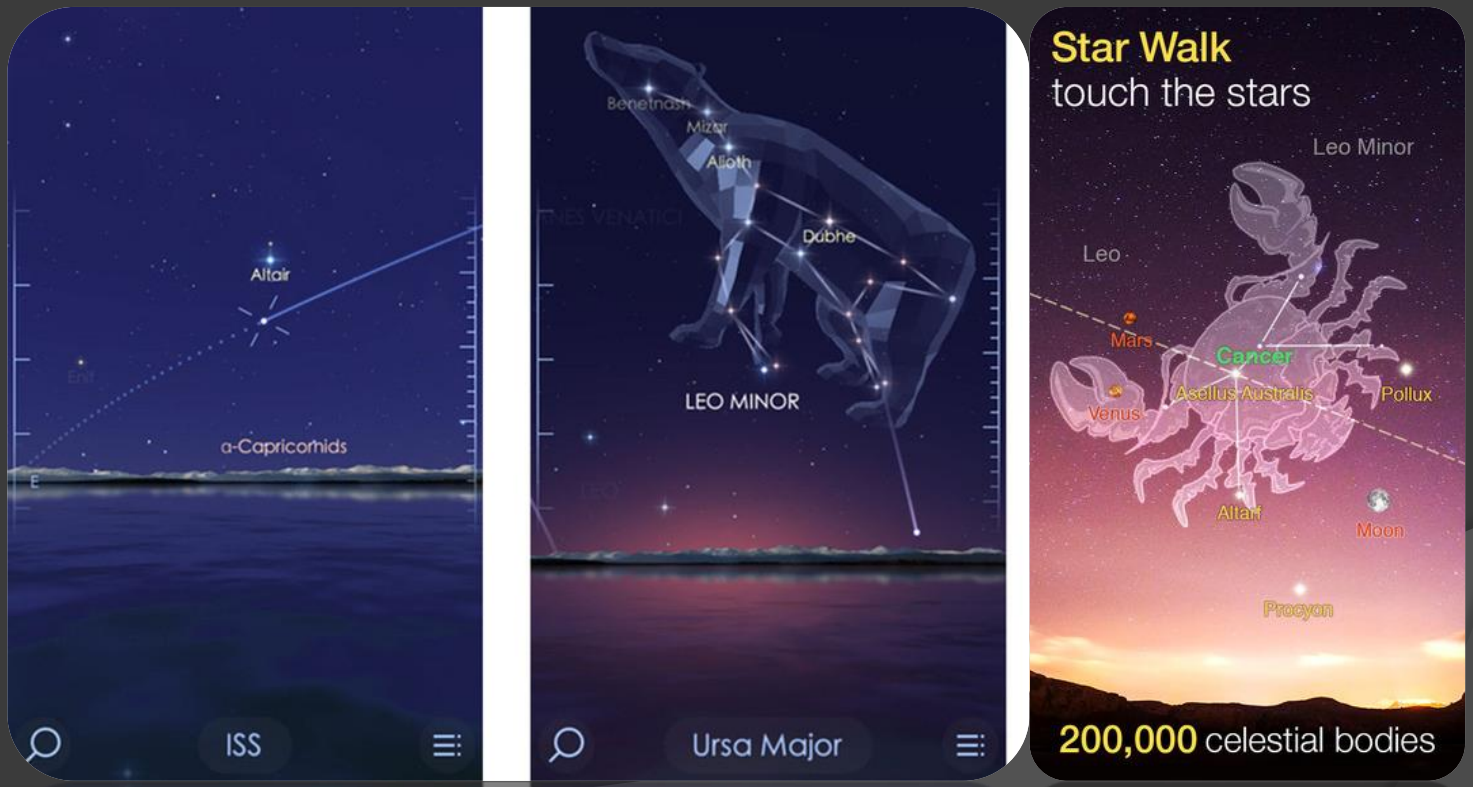
Universe Sandbox

- Simulate Gravity/Compress Time
- Collide Planets and Stars
- Model Climate Change
- Create Supernovas
- Build Planets, Stars, Solar Systems
- Examine Black Holes

http://universesandbox.com/

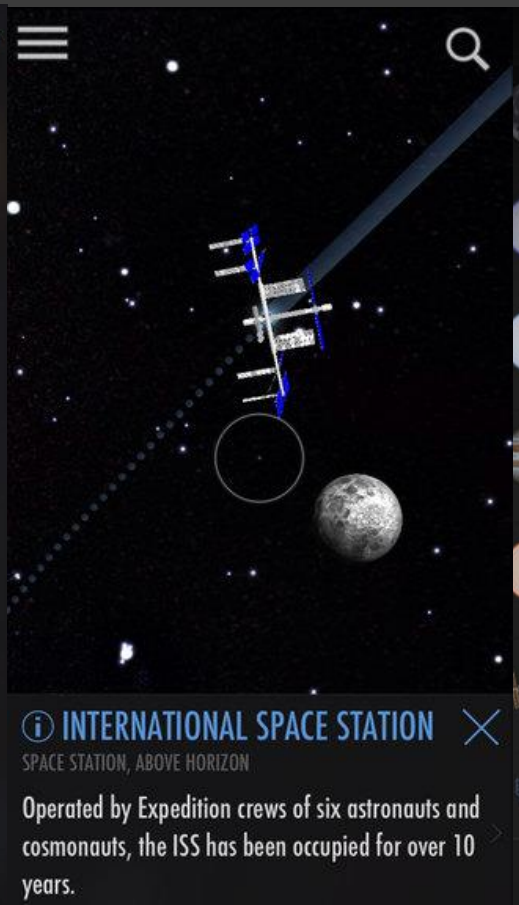
Starwalk for Smartphone

- Point your phone at the sky and find stars, consolations and more.



SkyView for Smartphone

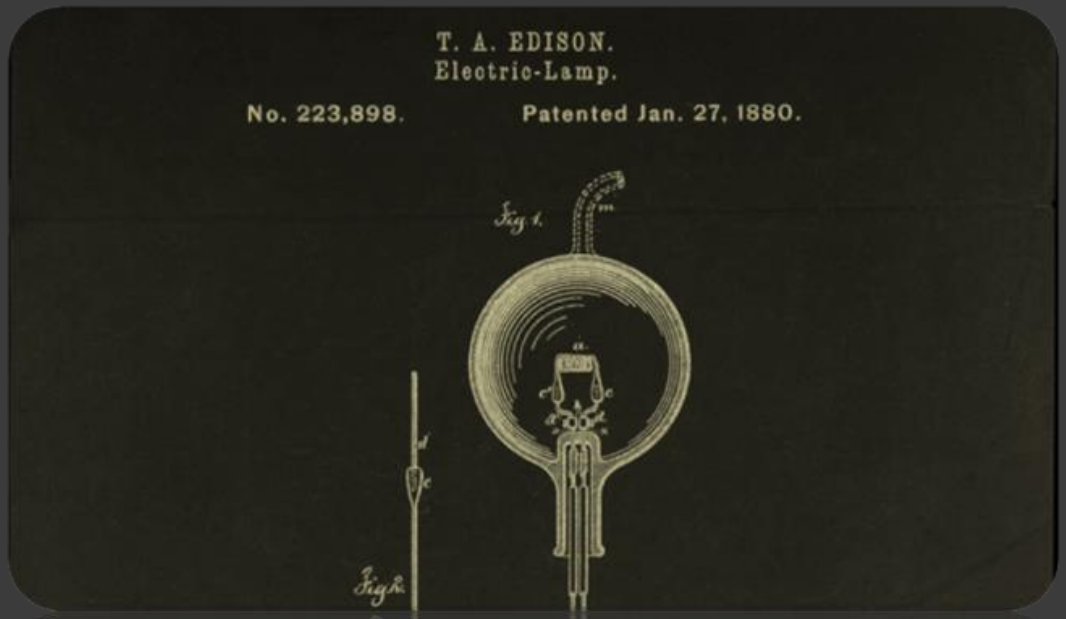
Point your phone at the sky and find stars, consolations and more



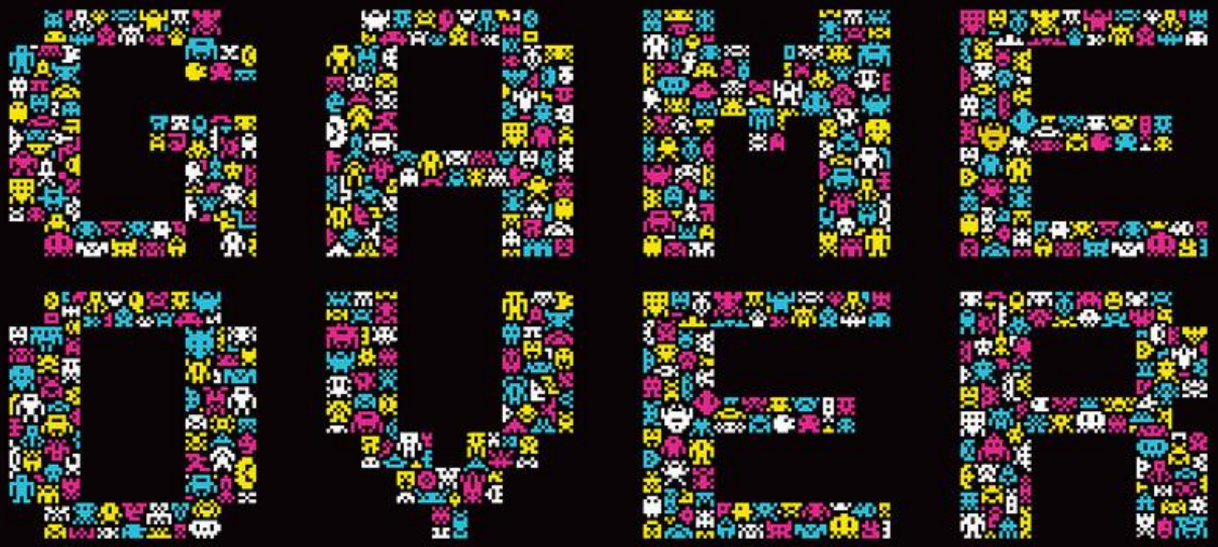
CONCLUSIONS

“Failure isn’t only an option, it is a requirement.”
Games Are Iteration

"I have not failed. I've just eliminated one thousand ways that won't work."
Thomas Edison



QUESTIONS?



Download this talk at: http://bit.ly/Portugal_JW

RESOURCES: VR

VR/AR HMD

SAMSUNG
Gear VR
oculus
VIVE
htc | STEAM VR
oculus
rift
PlayStation.VR
htc
oculus
tom's

VR/AR Success

- Untethered
- Social
- Walled Garden
- Killer App

VR/AR

- Untethered
  - No cables to trip over
- Social
- Walled Garden
- Killer App

VR/AR

- Untethered
- Social
  - We are social animals
- Wall Garden
- Killer App

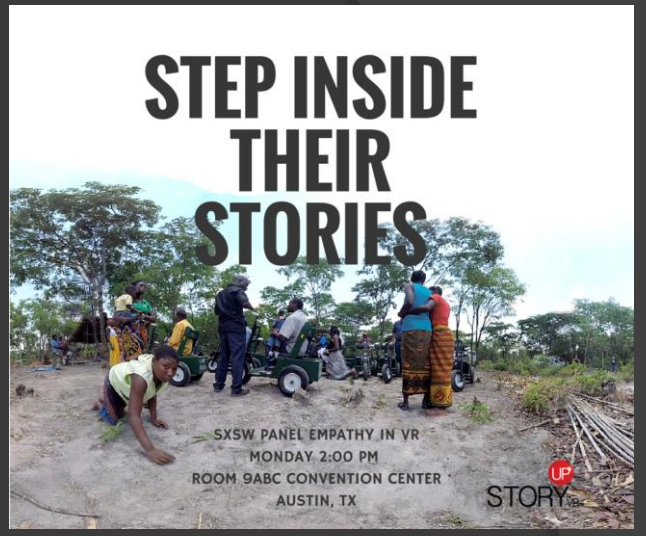
VR/AR

- Untethered
- Social
- Walled Garden
  - High enough walls to protect customers, low enough walls to allow innovation
- Killer App

VR/AR

- Untethered
- Social
- Walled Garden
- Killer App
  - We will forgive any limitation, if it is fun

VR/AR



- Empathy Machine
- Time Machine
- High Consequence Training
- Desencencitization/Stress Inoculation
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