

Principles of Engagement

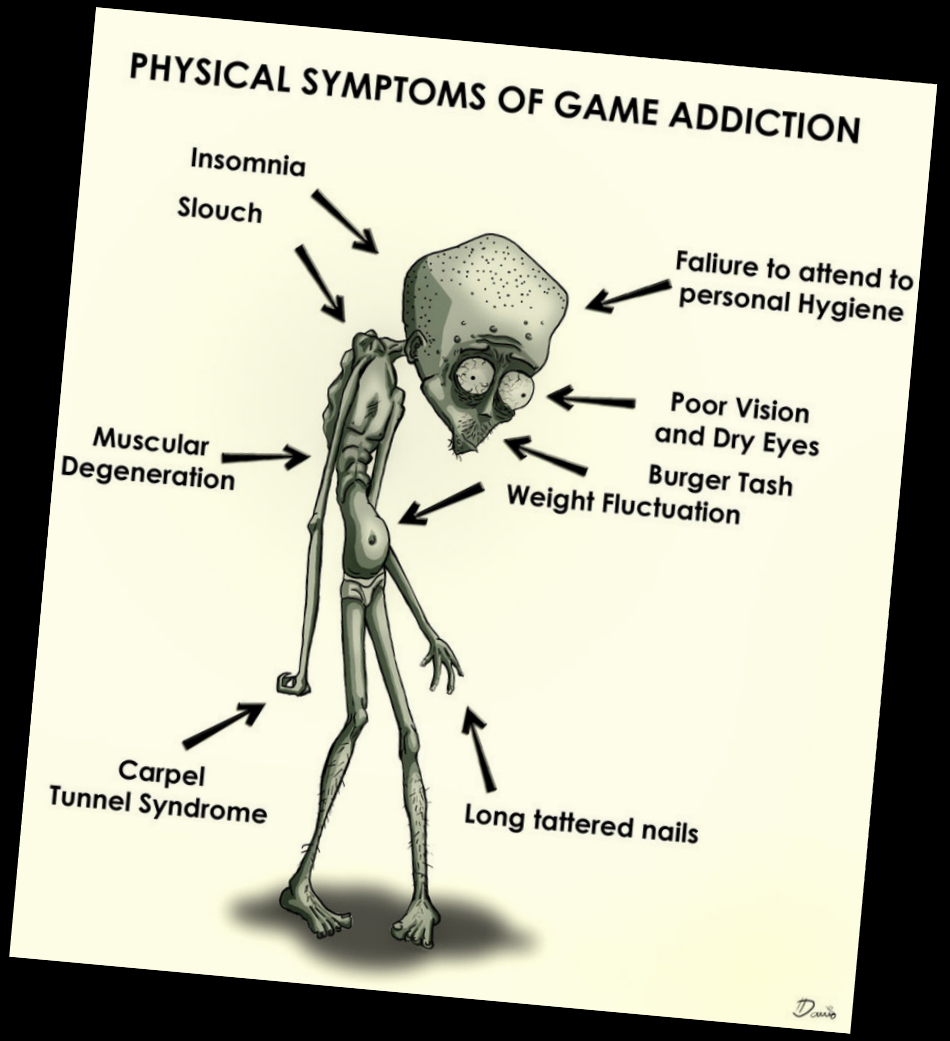
designing games for
maximum player engagement

Chuck Clanton

24 May 2017

Stanford EE380


Video games
ruined my life.
Good thing I have
two extra lives.


PHYSICAL SYMPTOMS OF GAME ADDICTION
Insomnia
Slouch
Faliure to attend to personal Hygiene
Poor Vision and Dry Eyes
Muscular Degeneration
Burger Tash
Weight Fluctuation
Carpel Tunnel Syndrome
Long tattered nails




GDC
GAME DEVELOPERS CONFERENCE
THE ART OF COMPUTER GAME DESIGN
REFLECTIONS OF A MASTER GAME DESIGNER
Chris Crawford
Hamlet on the Holodeck
The Future of Narrative in Cyberspace
updated edition
Janet H. Murray
A Theory of Fun
2nd Edition
10th Anniversary
for Game Design
Raph Koster
Foreword by Will Wright
O'REILLY
Game Mechanics
Advanced Game Design
Ernest Adams
Joris Dormans


VIDEOS




Saba Cloud
ME
MY TEAM
PEOPLE
GROUPS
INFO CENTRAL
ADMIN
Browse
TIM, The intelligent Mentor
Teach TIM
Recommendations for Jim Martin
Top 5 recommendations for you...
Pat Rose
Melissa Rogers
Communicating with the ...
Best Practices in Train...
Customer Service Train...
36
ESSENTIAL DOCUMENTS
Communicating with the Unsatisfied Customer
Customer Service Training Manual (WBT)
LINKS AND WEBSITES
Best Practices in Training via the Virtual Classroom
Customer Service info from Twitter


A Fork in the Tale
Laugh in the Face of Danger!
Harry Potter
And the Sorcerer's Stone
EA GAMES
EVERYONE
Populous
The Beginning
Welcome to
SIM Theme Park
Dungeon Keeper 2
Temple
The very rock yawns with anticipation of your next fascinating move

Definitions

- Game: a fictional reality with physics, goals, obstacles, means to overcome obstacles, and success conditions
- Game mechanics – how the player can interact with the physics of the game world, which includes what exists in the world, how they work, how the player can use them, what information they provide about actions, consequences, successes and progress
- Game play – the goals and obstacles of the player in the game, feedback about progress
- In a classic multilevel game
  - The lead game designer defines/invents the mechanics and the overarching goals, the story of the game
  - Level designers create the actual obstacles and solution paths for each level








theme HOSPITAL
Balancing the books and the bedpans


29 Dec




SYNDICATE™




RESIDENT EVIL



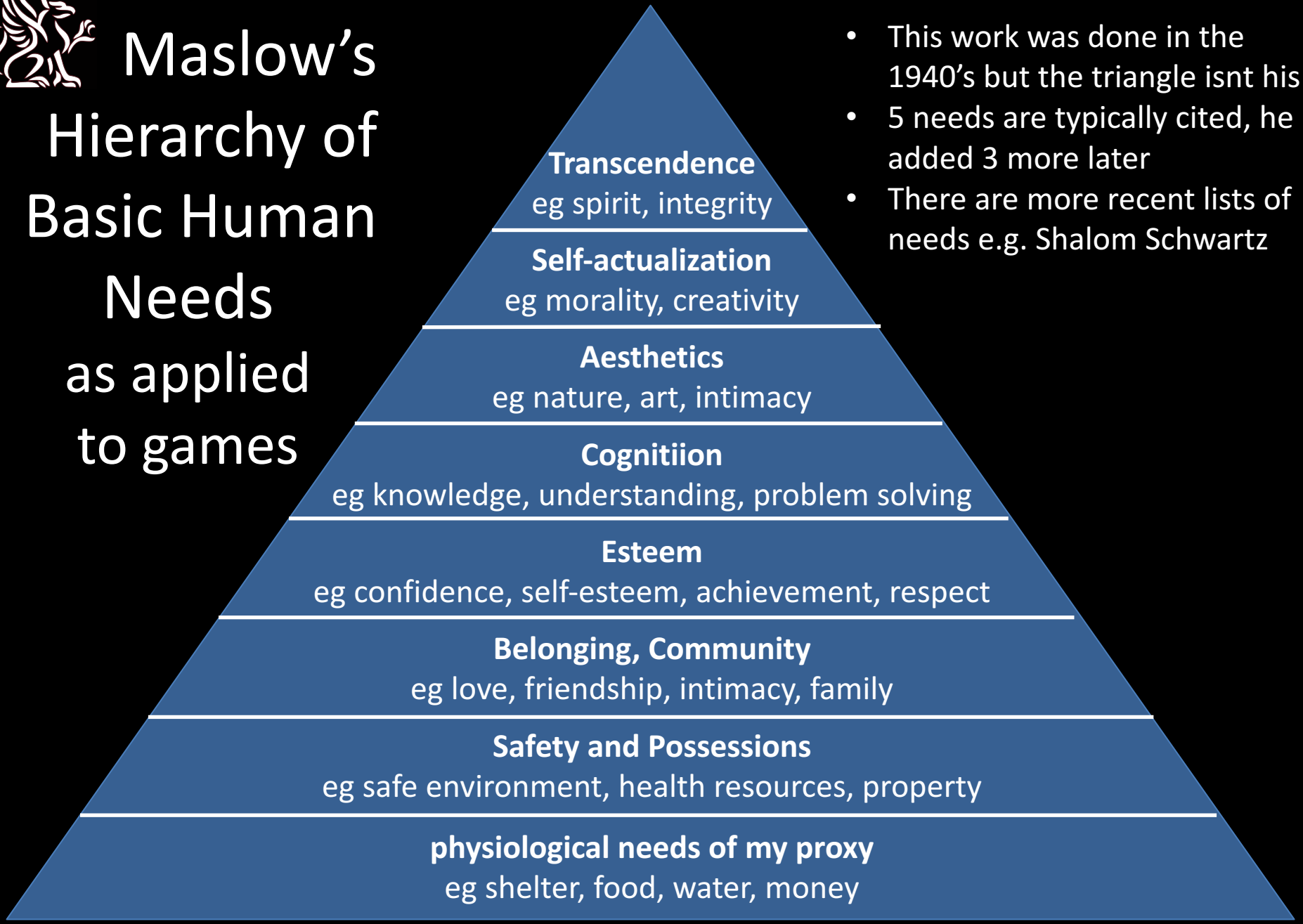

60/60 FPS

Satisfy a Basic Human Need

- Combat/competition – defeat others
- Achievement – find or win stuff
- Explorers – discover the world
- Socializers –connect with others
- Builders – create cool things, environments
- Thinkers– solve puzzles

Combinations can be compelling

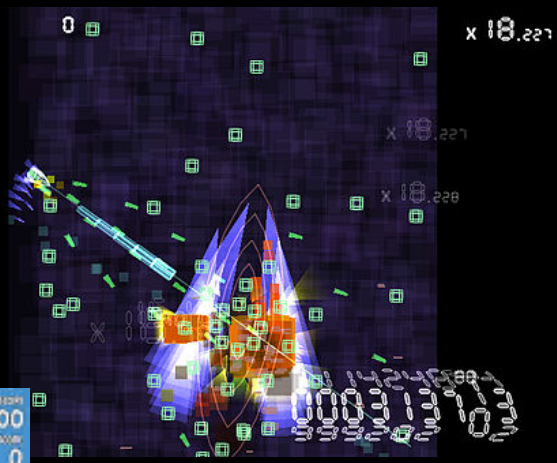
Maslow's Hierarchy of Basic Human Needs as applied to games



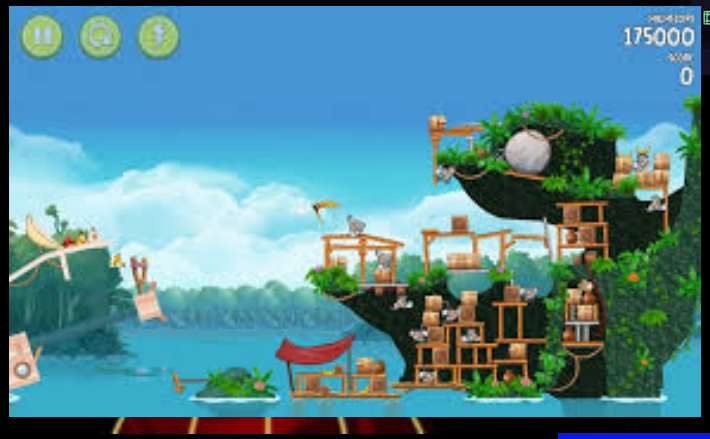
- This work was done in the 1940's but the triangle isnt his
- 5 needs are typically cited, he added 3 more later
- There are more recent lists of needs e.g. Shalom Schwartz






0
x 18.227
x 18.227
x 18.228


Help
Lincity Help
This is the Lincity help system. Please choose a topic by clicking on one of the blue words below. Blue words generally indicate a link to anoter document.
• Keyboard commands
• List of all buildable entries
• Help on the minimap
• Help on information tabs
While playing the game, you can get context sensitive help with most things using the help button.
Press this button to show statistics


175000
0




535




TIME
26"56
CREDITS 2
LAU
WIN
WIN
JACKY
ROUND 1
3"44


6
13%
0%


175000
0




LIFE
WOLF
B.ARMOR
17/26






Research




LEVEL UP!

Engagement in Flow

"in the zone"





A mental state of immersion in an activity with energized focus, full involvement, and enjoyment in the process of the activity







Flow State

Subjective Perception of the Experience

- Intense and focused concentration on the present
- Merging of action and awareness
- A loss of reflective self consciousness
- Being so engrossed that other needs become negligible
- Alteration of the subjective experience of time

Flow State

Conditions for Flow

1. A clear set of goals — the "mission" (multiple)
2. A compelling purpose — meaningful purpose in the fiction of the game
3. Personal agency — consequential actions
4. Clear and immediate feedback — Progress and state (with 3, ability to stay in flow)
5. A close match between perceived challenge and perceived skills — Fairness "survivable" frustration

Requirements

1. Knowing what to do — or believing that you figure it out
2. Knowing how to do it — or believing that you can acquire the skill
3. Knowing how well you are doing — activity outcome, overall state and progress
4. Knowing where to go (if navigation is involved) — exciting exploration not "lost"
5. High perceived challenges — challenge ramp
6. High perceived skills — competence, smart, powerful, accomplished
7. Freedom from distractions — requires constant attention, details and clues matter



Simple

Hot

Deep

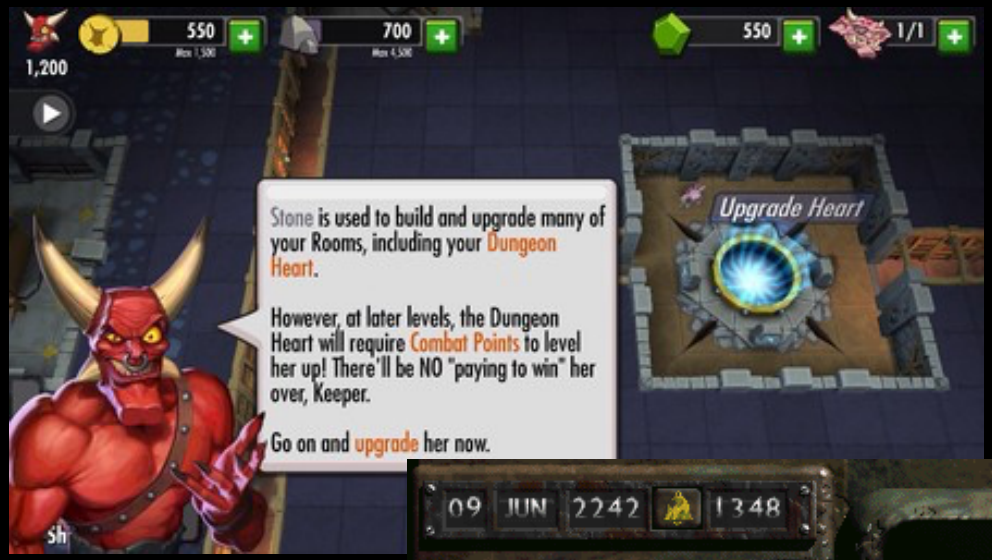


Simple








550
700
550
1/1
1,200
Stone is used to build and upgrade many of your Rooms, including your Dungeon Heart.
However, at later levels, the Dungeon Heart will require Combat Points to level her up! There'll be NO "paying to win" her over, Keeper.
Go on and upgrade her now.
Upgrade Heart


PRESIDENT RONNIE HAS BEEN KIDNAPPED BY THE NINJAS.
ARE YOU A BAD ENOUGH DUDE TO RESCUE RONNIE?


09 JUN 2242 1348
Dig-Boy 2000
STATUS
AUTOMAPS
ARCHIVES
CLOSE
Sierra Mission Statement
Sierra Army Depot
Mission Statement 1942 - 1991
Store and maintain a defensive supply of military ordnance. In the event of an invasion Sierra Army Depot is to lend support to neighboring military bases ensuring they are properly supplied and equipped.
Sierra Army Depot
Mission Statement 1992 - 2050
Responsible for the demilitarization of stores of surplus ammunition that have been deemed unfit or obsolete for military purposes. This mission is to be overseen by the Industrial Operations Command (IOC) in cooperation with the Environmental Protection Agency (EPA), providing a greener cleaner way to dispose of military ordnance.
Sierra Army Depot
Mission Statement 2050 - 2076
CLASSIFIED
Level 5 Clearance Required
Base is to be refurbished with the latest in technology and is to be used as a secret research installation for developing and testing robotic, biological and conventional weapons.
Sierra Army Depot
Mission Statement 2077
Due to trained personnel shortage, Sierra Army Depot is to be modified into an automated defense base. All personnel to be relocated to neighboring installations or sent to the front line.
BACK
DONE


HOT



Racing Game

Upgrade Vehicle

Harder Track

Level Up → Find

Find → Solve

Solve → Plot Advances

Plot Advances → Level Up

Action-Adventure

Defeat Opponent → Reward

Reward → Buy Stuff

Buy Stuff → Defeat Opponent

Combat

Maneuver → Aim

Aim → Shoot

Shoot → Get Stuff

Get Stuff → Maneuver

Action-Adventure



Deep



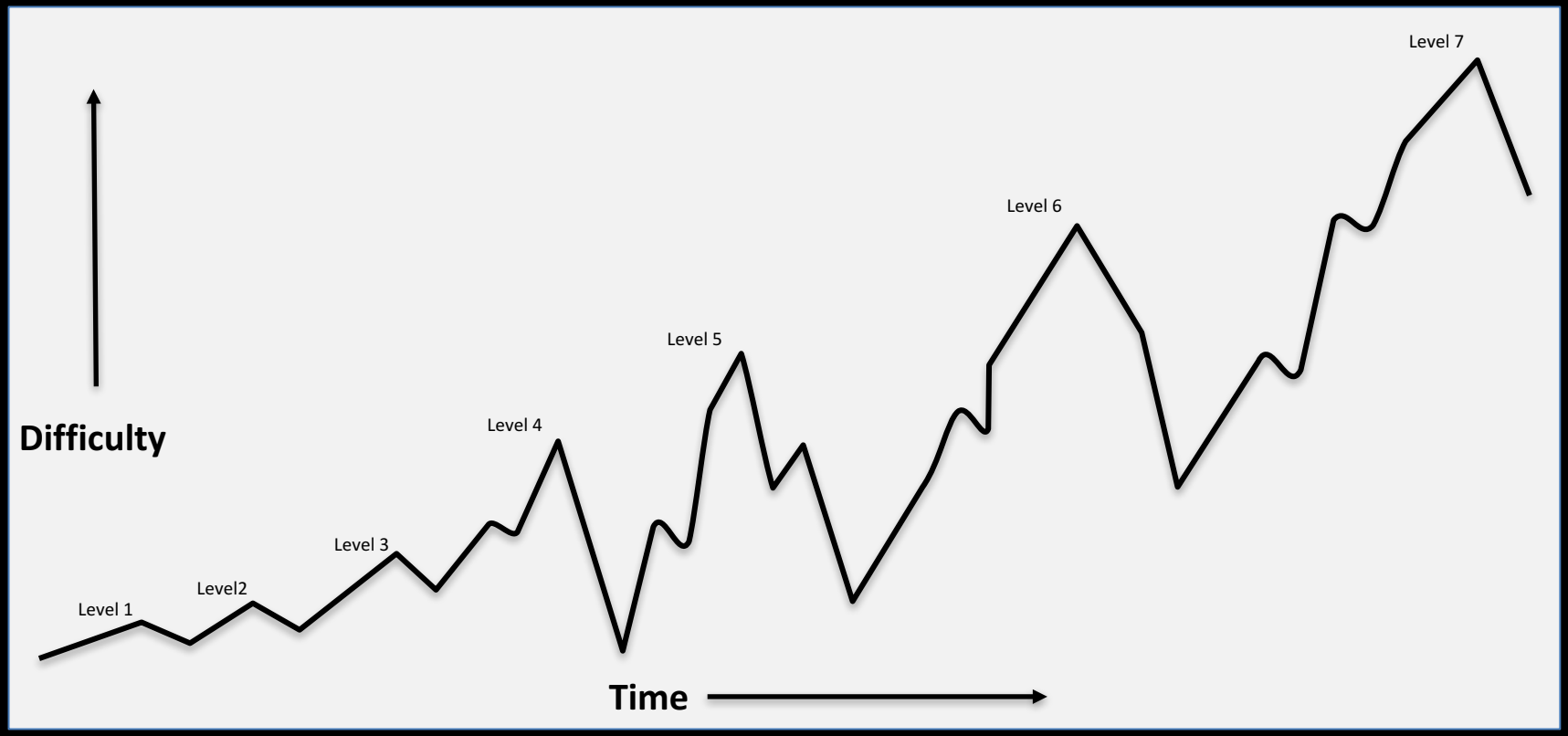
- **Beginner**
  - Full House
  - Naked Single
- **Easy**
  - Naked Single
- **Moderate**
  - Hidden Single
- **Intricate**
  - Locked Candidate
  - Naked Pair
- **Difficult**
  - Naked Triple
  - Hidden Pair
  - Unique Rectangle (type 1)
  - Unique Rectangle (type 2)
  - Unique Rectangle (type 4)
  - X-Wing
  - Swordfish
  - BUG
  - Unique Rectangle (type 3 - pair)
  - Hidden Triple
- **Devious**
  - Unique Rectangle (type 3 - triple)
  - Jellyfish
  - XYZ-Wing
  - XY-Wing
  - Naked Quad
- **Fiendish**
  - Hidden Quad
  - Unique Rectangle (type 3 - quad)
  - Finned Fish
  - Sashimi Fish
  - Fishy Cycle
  - X-Chain
  - Simple Colors

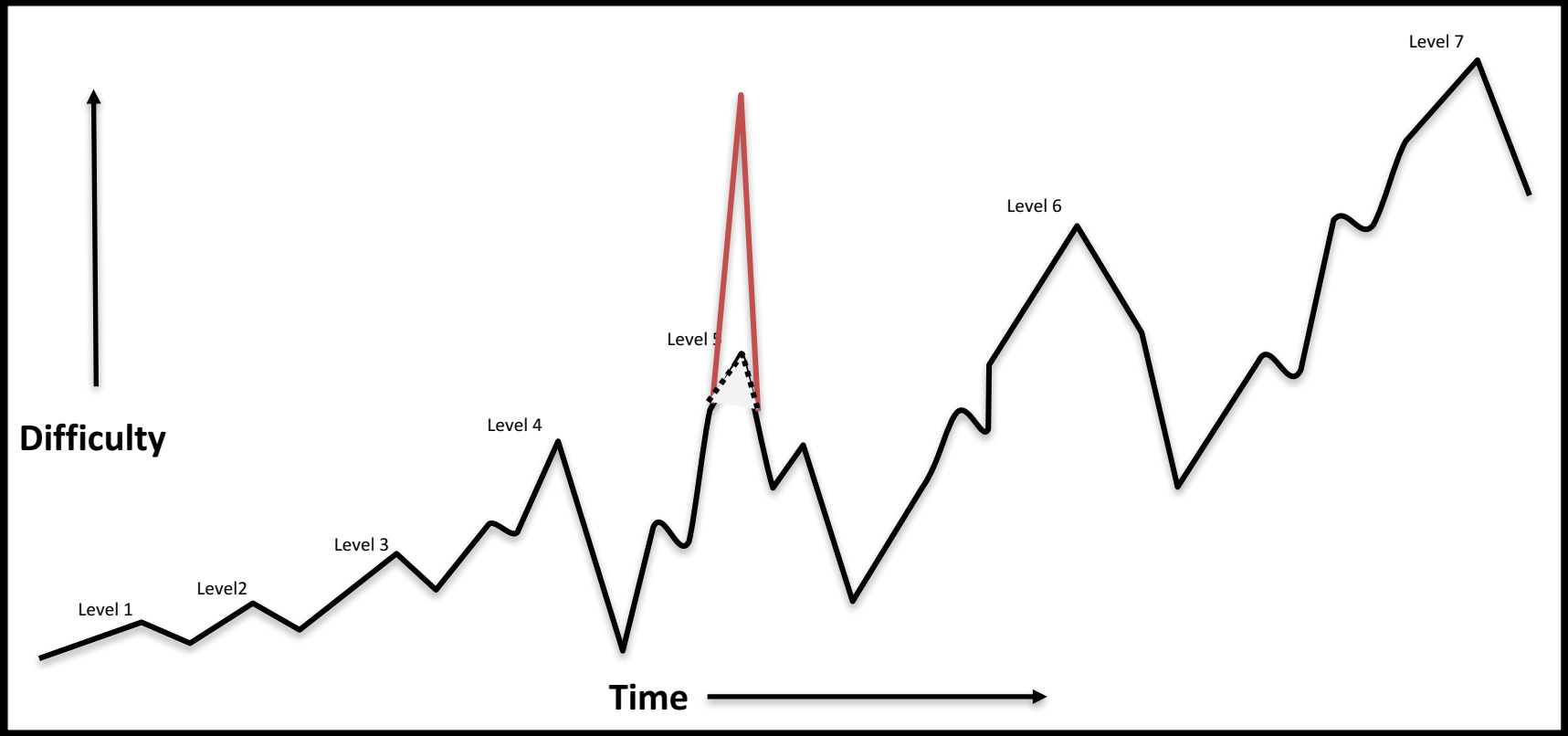



KIA



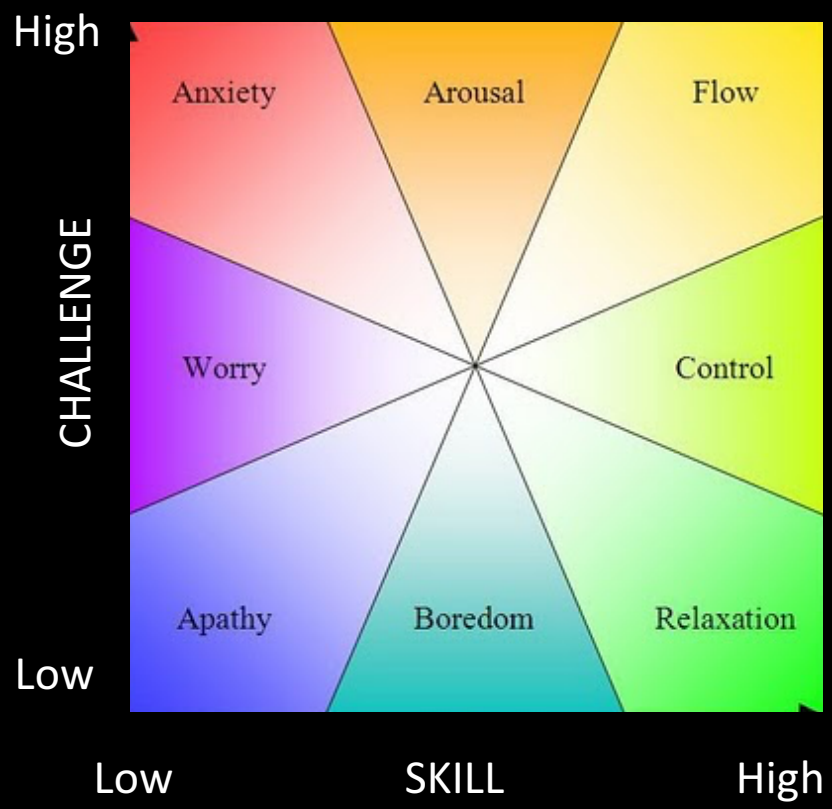


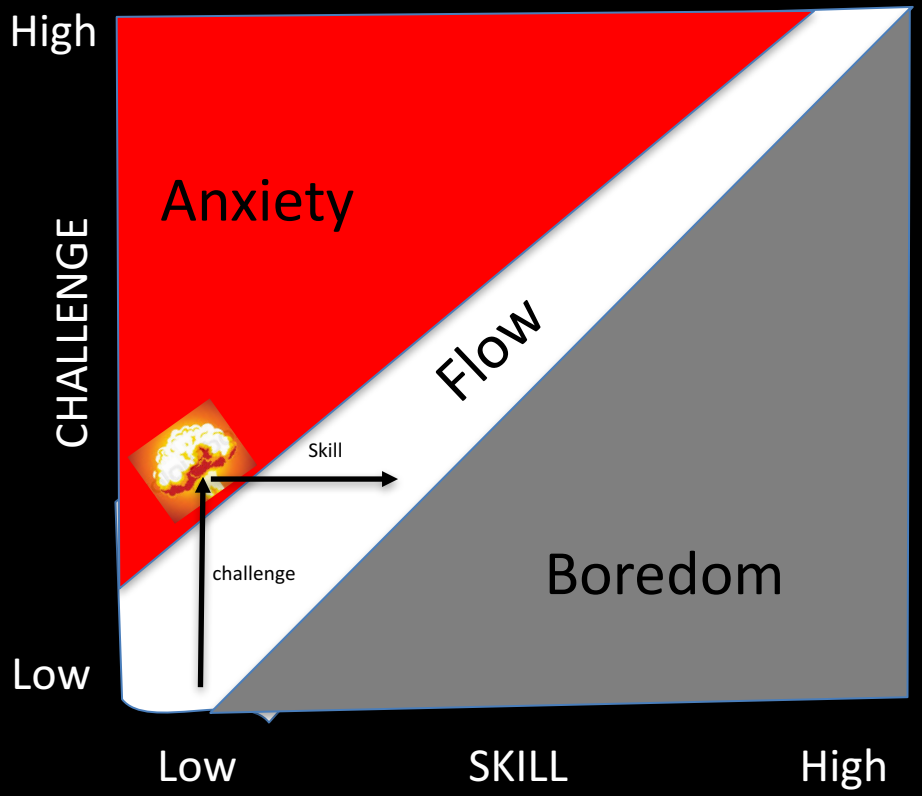

Level 7
Level 6
Level 5
Level 4
Level 3
Level2
Level 1
Difficulty
Time

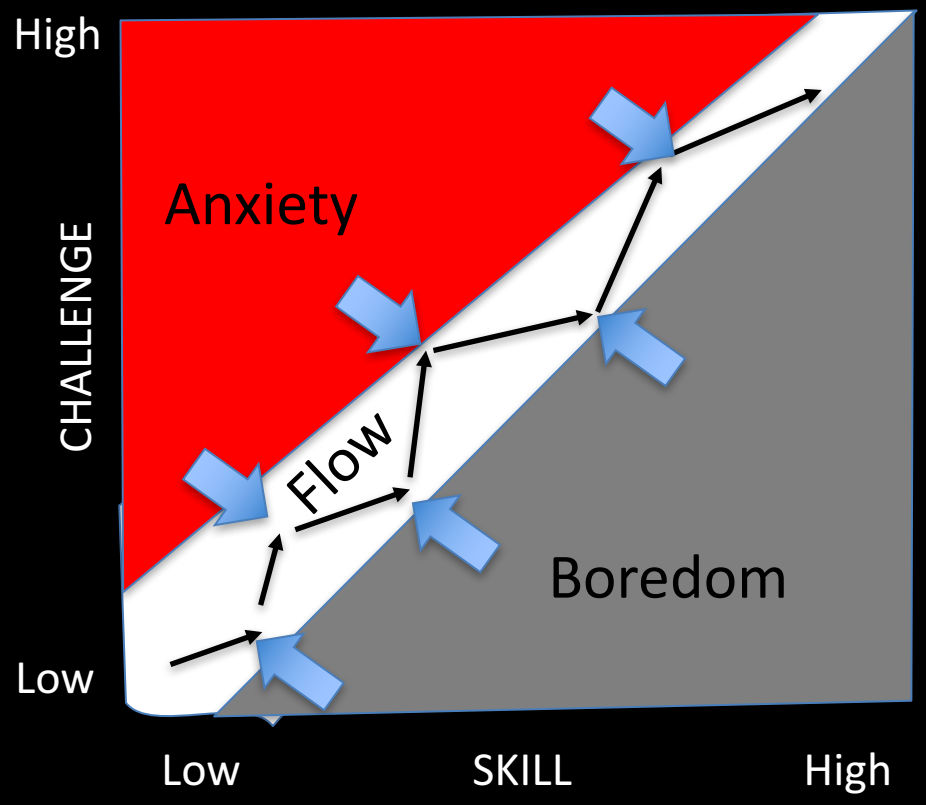

Level 7
Level 6
Level 5
Level 4
Level 3
Level2
Level 1
Difficulty
Time


INVESTMENT




High
Anxiety
Arousal
Flow
CHALLENGE
Worry
Control
Apathy
Boredom
Relaxation
Low
Low
SKILL
High


High
Anxiety
CHALLENGE
Flow
Skill
challenge
Boredom
Low
Low
SKILL
High


High
CHALLENGE
Low
Anxiety
Flow
Boredom
Low
SKILL
High


DAILY LOGIN BONUS
LOGIN EVERY DAY TO GET HIGHER REWARDS!
+300
+500
+3
DAY 1
DAY 2
TODAY
DAY 4
DAY 5
collect


'SOWSAR-17 SBMOD TYPE G' ASSAULT RIFLE


Great job!


RECKLESS RACING 2
Rocker
$152841
DIFFERENTIAL
STREET/DIRT
SPEED
ACCELERATION
HANDLING
Hot Lap
Street/Dirt
CHANGE
HANDLING
$ 2465



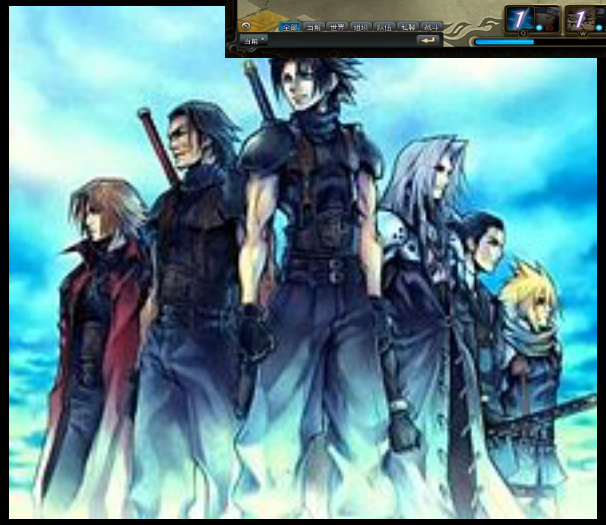

1

(HIS)TORY


[ENERGY]
99
109


MMOs


facebook











Games are intrinsically an alternate reality learning experience designed to induce a flow state