

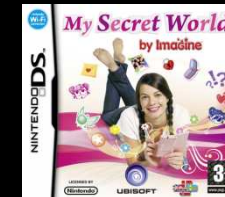
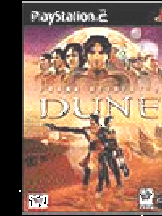
# CONCEPTION DE JEU VIDEO

Emmanuel Guardiola

Seaside Agency / Cnam

# Game design

- 1999 – 2003 : 3rd party developers studios
- 2004 – 2008 : Ubisoft World Studios  
Publisher
- From 2008 : Seaside Agency  
Game and interactivity design



# Academic

- Industrial responsible of the game design teaching at the national school of game and interactive media
- Ph.D at the CNAM, CEDRIC laboratory. On psychosociological model of the player in the game system.
- **Book :**
  - E.Guardiola 2000. Writing for games (« Ecrire pour le jeu, techniques scenaristiques du jeu video et informatique »). Dixit, Paris.
- **Paper in book**
  - E.Guardiola 2006 . Ludo-narrative Structure (« L’histoire que nous faisons vivre au joueur : la structure ludo-narrative »). In *Le Game Design de Jeux Vidéo. Approches de l’expression vidéoludique*. S Genvo ed. L’Harmatan, Paris.
- **In proceeding**
  - E. Guardiola & S. Natkin 2005. « Game Theory and video game, a new approach of game theory to analyze and conceive game systems ». In proceeding, CGAMES’05, Angoulême (France)
  - S. Bianchini & E. Guardiola 2005. « Image partagée : système de représentation et système de jeu ». In proceeding, H2PTM’05 - Créer, jouer, échanger : expériences de réseaux. 29, 30 Novembre, 1<sup>er</sup> Décembre 2005 - PARIS (France)



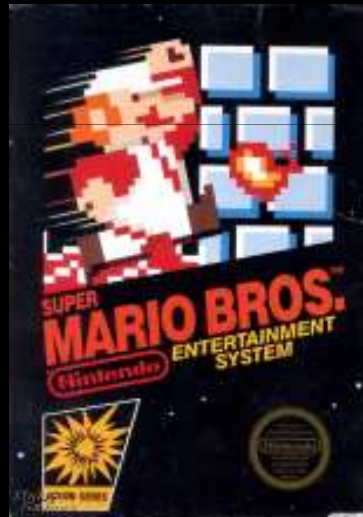
- Contexte
- Créer du jeu?
- Game design
- Maturité créative
- Perspectives



1

CONTEXTE

# Brève histoire



# Support : les consoles



65 million



32 million



37 million



124 million



56 million



80 million



120 million

# Autres supports

pas exclusivement orientés jeu

1 milliard



- Piratage
- MAIS Online et jeu service

300 millions vendu en 2009  
40 millions d'Iphone



250 millions en juillet 09

facebook

Les «Box »Pointent leur nez  
TV interactive et cloud gaming



# Acteurs

- Fabricant
- Editeur
- Développeur
- Prestataires
- Distributeur
- Point de vente
- Institutions
- Presse Jeu

# Modèles économiques

- En boîte classique, dans un commerce ou en ligne
  - Dominant
- Achat via les services en ligne des consoles, ou PC
  - XBLA, Wiiware, Home: des jeux anciens ou spécifique à DL
  - Steam sur PC
- Portail de jeu, achat en ligne
  - Pop Caps, Big Fish...
- Abonnements (mensuel, carte prépayée...)
  - World of Warcraft
- Micro paiements
  - Modèle asiatique
  - Facebook
- Publicité

# Exposition

- Exemple DS Noël 2007

## 118 titres DS

Dragonball Z GOKU DENSETSU (Namco Bandai Games) – August  
Madden NFL 2008 (EA) - 24th August  
Tiger Woods PGA Tour 2008 (EA) - 31st August  
Worms 2 (THQ) - 31st August  
Freshly-Picked Tingle's Rosy Rupeeland (Nintendo) - 14th September  
Glory Days 2 (Ghostlight) - 21st September  
Tank Battles (Midas) - 21st September  
Drawn To Life (THQ) - 21st September  
Sonic Rush Adventure (SEGA) - 28th September  
LuminousArc (Rising Star Games) - 28th September  
ATV Thunder Ridge Riders & Monster Trucks (ZOO Digital Publishing) - 28th September  
B-17 Fortress In The Sky (ZOO Digital Publishing) - 28th September  
Cookie & Cream (505Games) - September  
Jam SessionsTM (Ubisoft) - September  
Race Driver: Create & Race (Codemasters) - September  
Paint by DS (Ertain B.V.) - September  
Juiced 2: Hot Import Night (THQ) - September  
Scrabble Interactive 2007 Edition (Ubisoft) - September  
Purr Pals (THQ) - August/September  
Ratatouille (THQ) (in-line with movie release) - September  
Godzilla Unleashed (ATARI) - Q3  
Cake Mania (Majesco/Eidos) - Q3  
New York Times Crossword (Majesco/Eidos) - Q3  
Operation Vietnam (Majesco/Eidos) - Q3  
Toon Duko (Majesco/Eidos) - Q3  
Honeycomb Beat (Rising Star Games / Hudson) - 5th October  
NARUTO NINJA COUNCIL (Nintendo / TOMY) - 5th October  
Donkey Kong Jungle Climber (Nintendo) - 12th October  
Spider-Man: Friend or Foe (Activision) - 12th October  
Build A Bear Workshop (Games Factory) - 12th October  
Digi Gata (Games Factory) - 12th October  
The Legend of Zelda: Phantom Hourglass (Nintendo) - 19th October  
8Ball Allstars (Oxygen Games) - 19th October  
Hercules: Battle with the Gods (Midas) - 19th October  
Playwise: Dino Park (Midas) - 19th October  
Playwise: Pony World (Midas) - 19th October  
Sea Monsters (ZOO Digital Publishing) - 19th October  
Powershot Pinball Constructor (Oxygen Games) - 19th October  
Practise English! Face Everyday Situations (tentative title) (Nintendo) - 26th October  
Big Catch - Bass Fishing (505Games) - 26th October  
Arctic Tale (Zoo Digital Publishing) - 26th October  
Balls of Fury (ZOO Digital Publishing) - 26th October  
Original Frisbee Disc Sports - Ultimate & Golf (ZOO Digital Publishing) - 26th October  
Crash Of The Titans '07- DS (Vivendi Games) - October  
Izuna (505 Games) - October  
Bratz: 4 Real (THQ) - October  
Cars: Mater-National (THQ) - October  
Hanna Montana (Disney Interactive Studios) - October  
Disney Friends (Disney Interactive Studios) - October  
Avatar: The Burning Earth (THQ) - October  
CSI 2 Dark Motives (Ubisoft) - October  
Real Football 2008 (Ubisoft) - October  
Spyro: The Eternal Night DS (Vivendi Games) - October  
How The Grinch Stole Christmas (ZOO Digital Publishing) - 9th November  
Flash Focus (tentative title) (Nintendo) - 23rd November  
Mario Party DS (tentative title) (Nintendo) - 23rd November  
Bomberman Story (Rising Star Games / Hudson) - 23rd November  
Yamaha Supercross (ZOO Digital Publishing) - 23rd November  
M+M's Kart Racing (Zoo Digital Publishing) - 30th November  
Ben 10: Protector of Earth (D3Publisher of Europe/Koch Media) - November  
Need For Speed Pro Street (EA) - 1st or 2nd November  
High School Musical: Making The Cut! (Disney Interactive Studios) - November  
Ambidexterity (working title) (505 Games) - November  
Fashion Designer (505 Games) - November  
I Did It Mum (Boy) (505 Games) - November  
I Did It Mum (Girl) (505 Games) - November  
Ferrari Challenge (System 3) - November  
Call Of Duty 4: Modern Warfare (Activision) - November  
Jenga (ATARI) - November  
Disney Princess: Magical Jewels (Disney Interactive Studios) - November  
Enchanted (Disney Interactive Studios) - November  
Power Rangers: Super Legends (Disney Interactive Studios) - November  
Aquarium by DS: Fantasy (Ertain B.V.) - November  
Aquarium by DS: Real (Ertain B.V.) - November  
Matchstick Puzzle by DS (Ertain B.V.) - November  
Paint by DS: Military Vehicles (Ertain B.V.) - November  
Strawberry Shortcake The Four Seasons Cake (Game Factory) - November  
Chessmaster: The Art of Learning (Ubisoft) - November  
The Golden Compass (SEGA) - November  
Warhammer 40k Squad Command (THQ) - November  
WWE Smackdown vs Raw 2008 (THQ) - November  
Rayman Raving Rabbids 2 (Ubisoft) - November  
Showtime Championship Boxing (ZOO Digital Publishing) - 7th December  
Ed, Edd n Eddy (D3Publisher of Europe/Koch Media) - December  
Paint by DS: Classical Masterpieces (Ertain B.V.) - December  
Brain Buddy (Koch Media) - Q4  
Boulder Dash Rocks! (10TACLE STUDIOS) - Q4  
Steel Horizon (Konami) - Q4  
Catz 2 (Ubisoft) - Q4  
Dolphin Island (Ubisoft) - Q4  
Dogz 2 (Ubisoft) - Q4  
Hamsterz 2 (Ubisoft) - Q4  
Horse Life (Koch Media) - Q4  
Horsez (Ubisoft) - Q4  
Imagine Fashion Designer (Ubisoft) - Q4  
Imagine Happy Cooking (Ubisoft) - Q4  
Imagine Pet Vet (Ubisoft) - Q4  
Imagine Babies (Ubisoft) - Q4  
Miami Nights (Ubisoft) - Q4  
My Word Coach (Ubisoft) - Q4  
Totally Spies (Ubisoft) - Q4  
Surf's Up (Ubisoft) - Summer / Autumn  
Konami Arcade Classics (Konami) - Autumn  
Pro Evolution Soccer 2008 (Konami) - Autumn  
My Horse and Me (ATARI) - Autumn  
Lucky Luke Go West (ATARI) - Autumn  
Mega Man Star Force Leo (Capcom) - Autumn  
Mega Man Star Force Pegasus (Capcom) - Autumn  
Mega Man Star Force Dragon (Capcom) - Autumn  
EA Playground (EA) - Autumn  
FIFA '08 (EA) - Autumn  
HEROS OF MANA (Square Enix) - Autumn  
DS Novel (tentative title) (Nintendo) - Winter  
Mario & Sonic At The Olympic Games (SEGA) - Winter  
Asterix at the Olympic Games (ATARI) - Winter  
Boogie (EA) - 2007  
My Sims (EA) - 2007

emplacements  
chez Wal-Mart  
aux US



*Force du réseau de distribution et du push marketing*

*Qualité contenu et son adéquation à une audience*

<http://news.softpedia.com/news/Nintendo-039-s-Q4-Lineup-Revealed-All-Wii-and-DS-Titles-Dated-63782.shtml>

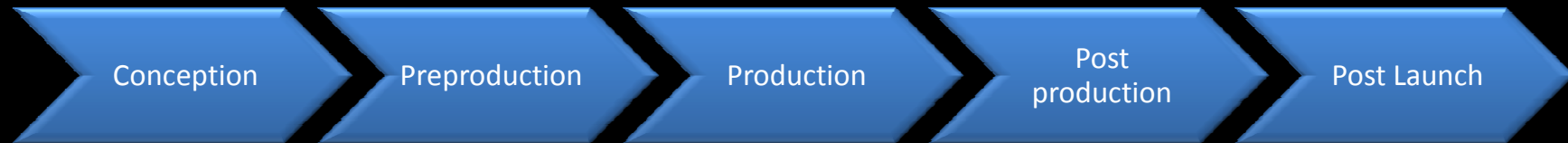
# Exposition



- 70 nouveaux jeux par jour sur l'iPhone en France
- Sources : userADgents <http://www.mobileenfrance.com/actufrance/2010/02/25/communiquede-presse-useradgents-analyse-l%E2%80%99app-store-france-d%E2%80%99apple/>



# Aperçu d'une production



Formalisation  
d'une idée

Valorisation  
de l'idée et  
prototypage:  
R & D Créative  
et technique

QQ semaines à 6 mois

1 à 10 personnes

Cahier des  
charges du  
jeu : validation  
du *gameplay*

2 mois à 1 an

2 à 50 personnes

processus industriel :  
phase de réalisation  
du jeu

6 mois à 2 ans

3 à 250 personnes

Play test  
Validations  
fabricants

Patch,  
contenu  
téléchargeable,  
animation de  
mondes  
persistants

Devient un  
véritable service

Quelques mois à ???

Très variable: de 1  
personne à ratio  
personnes/abonnés

# Équipe

Management du studio

Direction éditoriale interne ou externe

Marketing interne externe

Game Designer

Programmer

Graphiste

Directeur créatif  
projet

Directeur  
technique

Directeur  
artistique

Lead Sound  
designer

Chef de projet/  
producteurs  
associés

Lead game  
designer

Lead Level  
designer

Leads :  
Caméra  
control  
tools  
IA  
scénarique  
FX  
bas niveau..

Leads :  
graphic  
Animator  
Models  
Characters  
2D  
Menu ...

Sound team

Game  
designers

Level  
designers

Story  
Designer

Ressources externes

Parfois experts,  
intermittents, writers

Programmers  
...

Artists  
Animators  
...

Writers

2

CRÉER *DU* JEU

# Jouent-ils?



Huizinga, Homo luden  
Caillois, Des jeux et des hommes  
Jacques Henriot, Sous couleur de jouer

## Game as an interaction loop

These elements are critical but how the game content is managed by player?

Create game situations, send these to the player and allowing him to interact with them

Stimuli  
Feedback

Action  
Controls



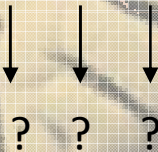
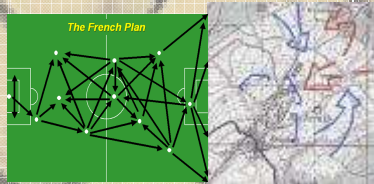


# Design : Play

SITUATION PERCEIVED AND REPRESENTED  
pattern



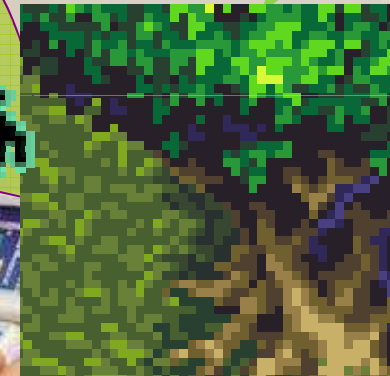
STRATEGIES CONCEPTION AND SELECTION  
Analyze of solution pay off  
Always a risk of failure



TARGETED SITUATION  
+ evaluation of the  
difference to manage



The manifestation of the virtual world, a game situation transformed in pixels, sound, scripts...



UPDATED

EXECUTION



# Design : Play

SITUATION PERCEIVED AND REPRESENTED  
pattern



The manifestation of the virtual world, a game situation transformed in pixels, sound, scripts...

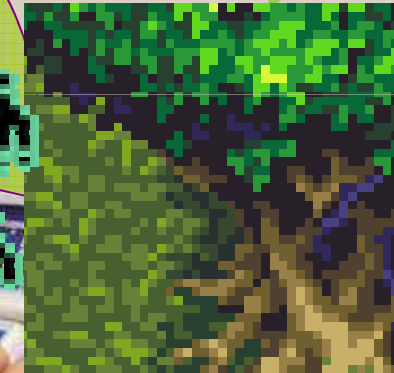
UPDATED



TARGETED SITUATION  
+ evaluation of the  
difference to manage



EXECUTION



Agir dans l'incertitude



O	X	O
X	X	
	O	X

X		O
O	X	X
	X	O

O	X	
X	X	O
O		X

O	X	O
X	X	
	O	X

O	X	O
	X	X
X	O	

	O	X
X	X	
O	X	O

O	X	O
X	X	
	O	X

O		X
X	X	O
O	X	

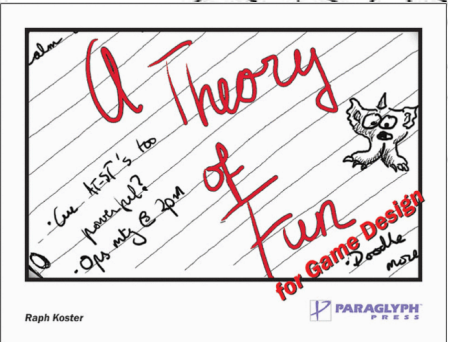
O	X	
X	X	O
O		X

O	X	O
X	X	
	O	X

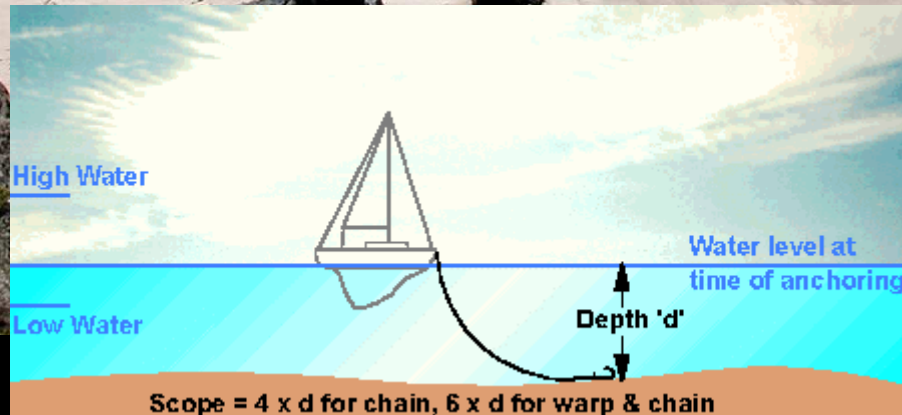
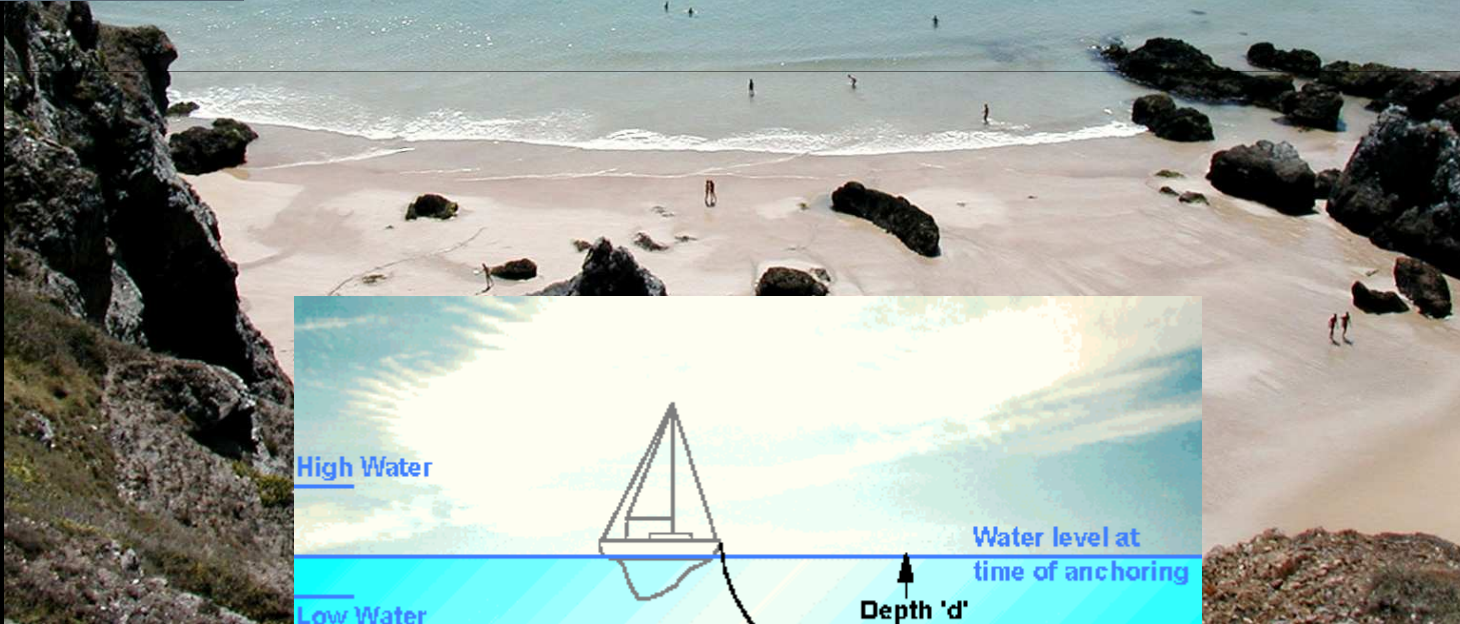
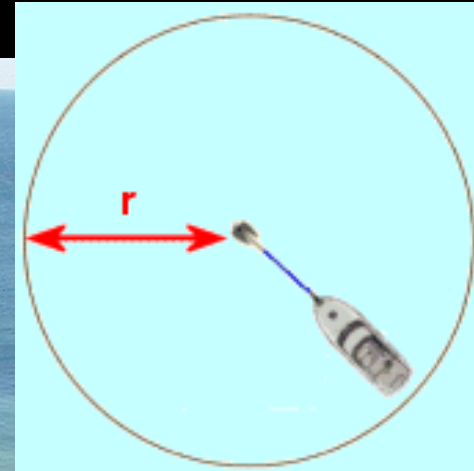
O		X
X	X	O
O	X	

	X	O

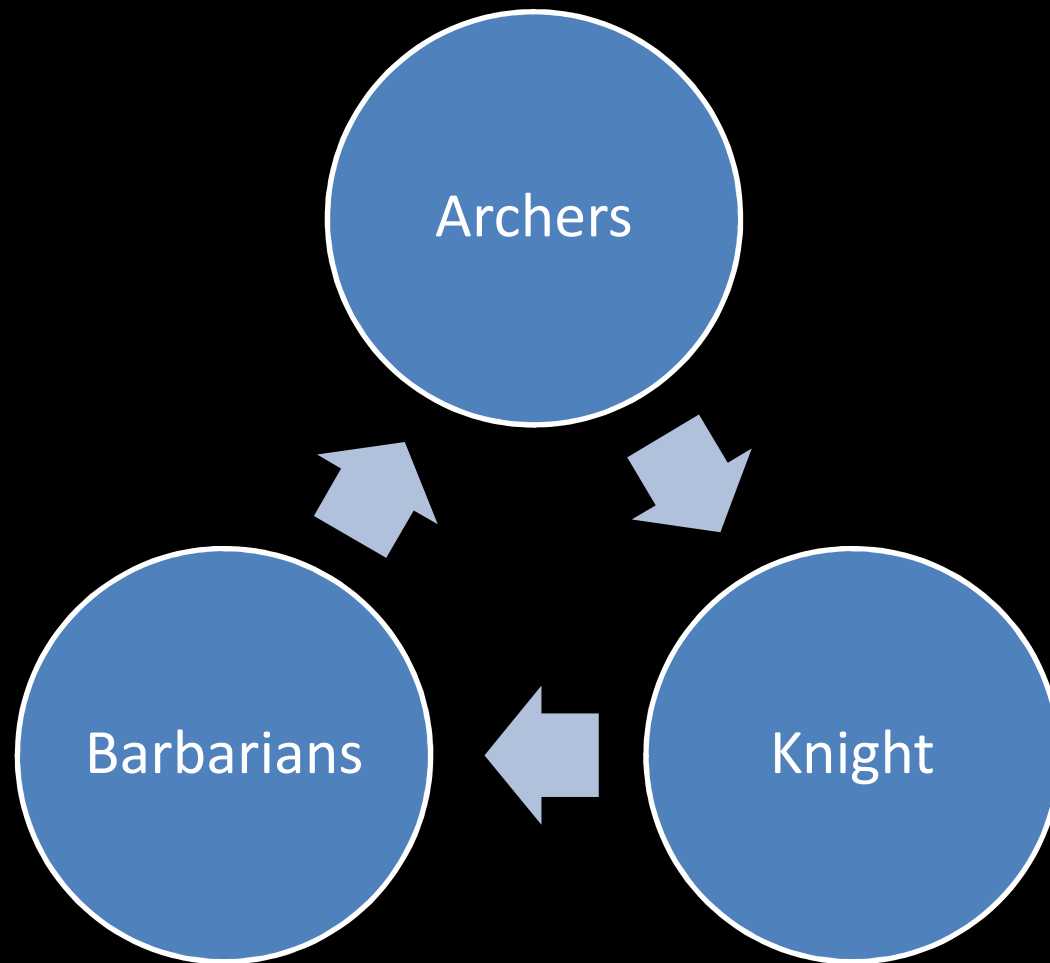
The game becomes **boring**



# Incertitude



# The ancient art of war, Apple, 1984



Où sont les décisions intéressantes? Ou se situe l'incertitude?



Fighter

Bomber

Chopper

AA

Armored

Anti tank  
gun

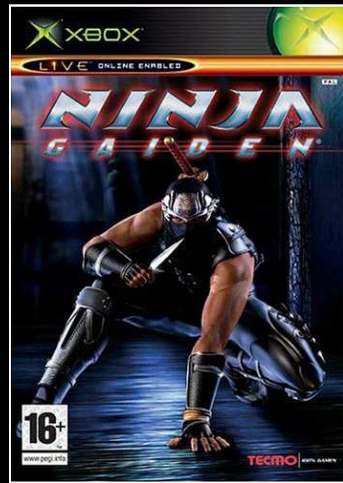
Light  
Armored

Artillery

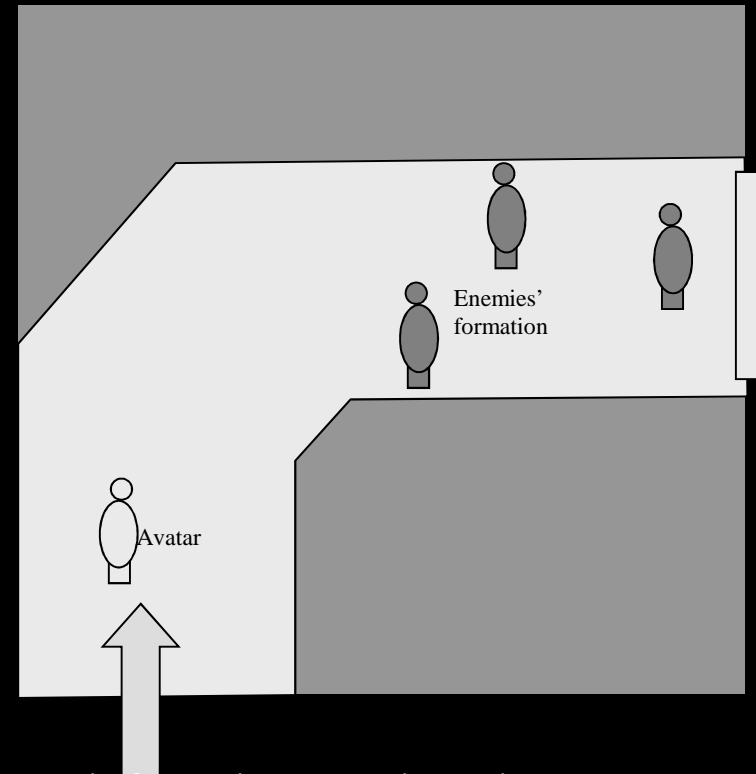
Heavy  
infantry

Infantry

- Nature of environment
- Numbers
- Speed
- Fog of war
- Amunitions
- ...



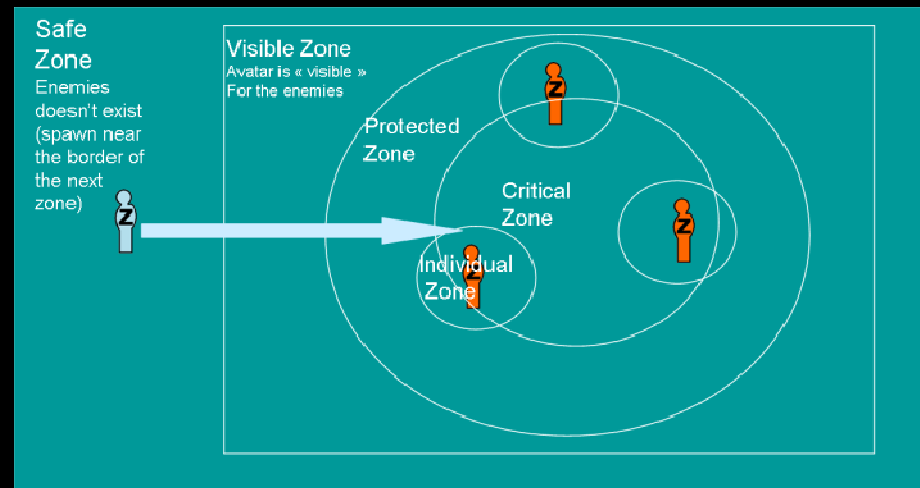
		Joueur 2	
Joueur 1		Stratégie A	Stratégie B
	Stratégie a	3, 0	4, 0
	Stratégie b	6, 3	0, 2



E. Guardiola & S. Natkin 2005. « Game Theory and video game, a new approach of game theory to analyze and conceive game systems ». In proceeding, CGAMES'05, Angoulême (France)



- Empty matrix of Avatar on the ground in visible zone

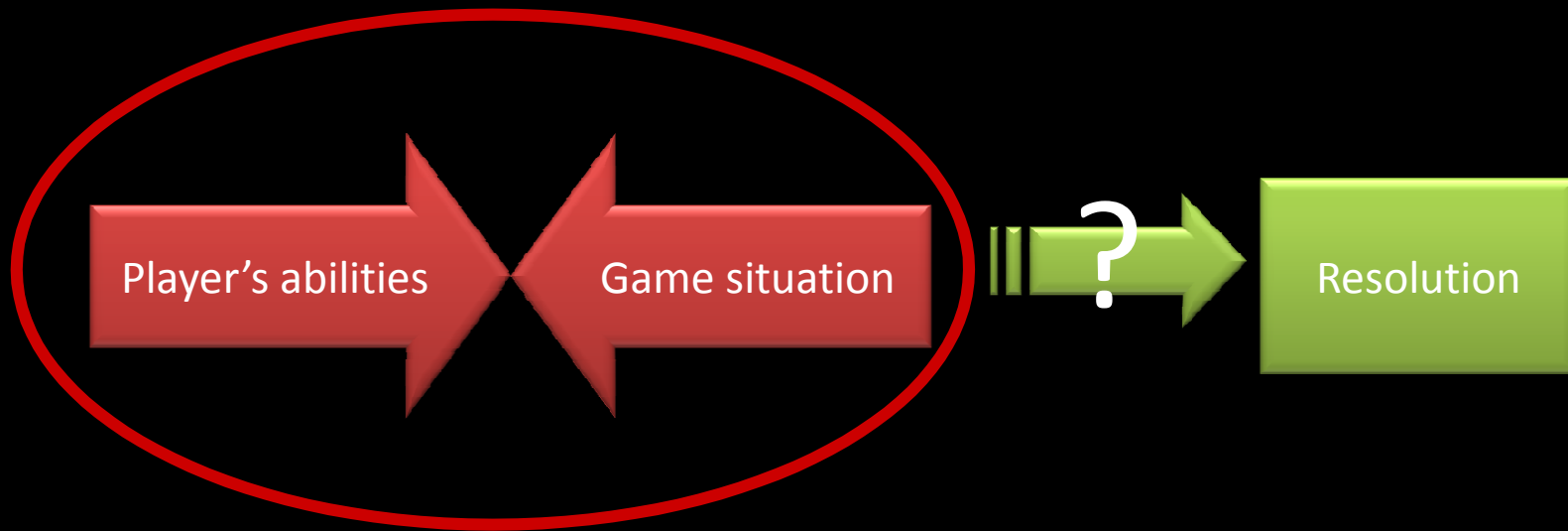


Matrix 1 : Avatar on ground in Visible Zone

		Game system player				
		3 do not shoot	1 shots 2 do not shot	2 shot 1 doesn't shot	3 shot	
Human player Control		Effect on avatar				
Human play	no input	standing				
	L Stick	Move to the next zone, n the same zone, in the previous zone				
	A	Jump				
	A + L	Jump and move				
	Hold R trigger	Block				
	Hold R trigger + L Stick	Roll				
	X	Sword attack				
	B	Range attack with bow				
	B+Y	Spell (fire shield)				
	Y	Powerful attack				
Hold Y	Load charge(					

Challenge

# Challenge





### Console Standards

 <b>Tandy</b> 1 Stick 1 Button	 <b>Atari 2600</b> 1 Stick 1 Button	 <b>ColecoVision</b> 1 Stick 2 Buttons 1 Number Pad	 <b>Atari 5200</b> 1 Stick 4 Buttons 2 Options 1 Number Pad	 <b>NES</b> 1 D-Pad 2 Buttons 2 Options	 <b>Sega Master System</b> 1 D-Pad 2 Buttons
 <b>Genesis</b> 1 D-Pad 3 Buttons 1 Option	 <b>SNES</b> 1 D-Pad 4 Buttons 2 Shoulders 2 Options	 <b>Sega CD</b> 1 D-Pad 4 Buttons 2 Options	 <b>N64</b> 1 D-Pad 1 Stick 6 Buttons 2 Shoulders 1 Option	 <b>Dreamcast</b> 1 D-Pad 1 Stick 4 Buttons 2 Shoulders 1 Option	 <b>Playstation 2</b> 1 D-Pad 2 Sticks 4 Buttons 4 Shoulders 2 Options

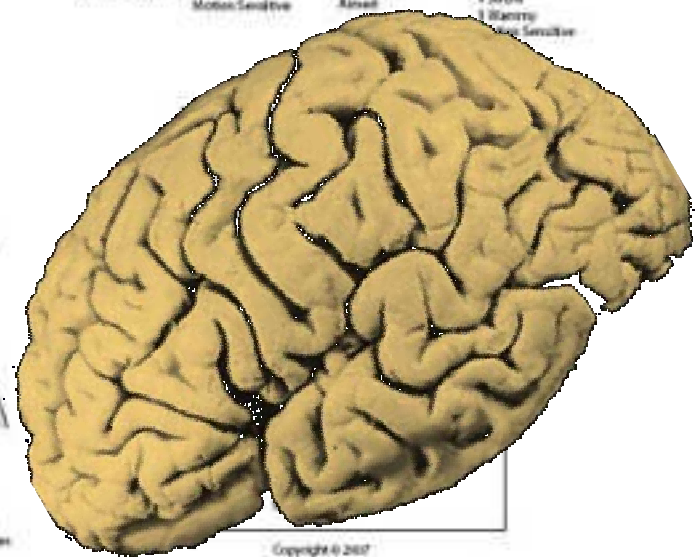
### Specialty Controllers

 <b>Atari Tennis</b> 1 Knob 1 Button	 <b>ColecoVision</b> 1 Stick 4 Buttons 1 Number Pad	
 <b>NES Light Gun</b> 1 Button Aimed	 <b>NES Power Glove</b> 1 D-Pad 2 Buttons 11 Options Motion Sensitive Aimed	 <b>Dreamcast Fission</b> 1 Stick 4 Buttons 1 Pad Motion Sensitive
 <b>Keyboard and Mouse</b> 100 Buttons 2 Number Pads 2 Buttons 1 Scroll Wheel Motion Sensitive	 <b>SNES Super Scope</b> 1 Button 2 Options Aimed	 <b>PS2 Guitar</b> 5 Buttons 2 Options 1 Strum 1 Battery Motion Sensitive

 <b>Gamecube</b> 1 D-Pad 2 Sticks 4 Buttons 3 Shoulders 1 Option	 <b>X-Box Old</b> 1 D-Pad 2 Sticks 4 Buttons 2 Shoulders 2 Options	 <b>X-Box New</b> 1 D-Pad 2 Sticks 6 Buttons 2 Shoulders 2 Options	 <b>X-Box 360</b> 1 D-Pad 2 Sticks 6 Buttons 2 Shoulders 2 Options	 <b>Wii Nunchuk</b> 1 Stick 2 Shoulders Motion Sensitive Aimed	 <b>Wii Arcade</b> 1 D-Pad 2 Sticks 4 Buttons 4 Shoulders 1 Option Motion Sensitive Aimed
---	---	---	---	--	--

### Portable Systems

 <b>Game Boy</b> 1 D-Pad 2 Buttons 2 Options	 <b>Lynx</b> 1 D-Pad 4 Buttons 5 Options	 <b>Game Gear</b> 1 D-Pad 2 Buttons 1 Option	 <b>Virtual Boy</b> 2 D-Pads 2 Buttons 1 Shoulder 2 Options	 <b>Game Boy Color</b> 1 D-Pad 2 Buttons 2 Options	
 <b>GBA</b> 1 D-Pad 2 Buttons 2 Shoulders 2 Options	 <b>GBA SP</b> 1 D-Pad 2 Buttons 2 Shoulders 3 Options	 <b>DS</b> 1 D-Pad 4 Buttons 2 Shoulders 1 Touch Screen 1 Option	 <b>Game Boy Micro</b> 1 D-Pad 2 Buttons 2 Shoulders 2 Options	 <b>PSP</b> 1 D-Pad 4 Buttons 2 Shoulders 4 Options	 <b>DS Lite</b> 1 D-Pad 4 Buttons 2 Shoulders 1 Touch Screen 2 Options



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# Player's abilities vs game situation





# Player's abilities vs game situation



# Player's abilities vs game situation





# Player's abilities vs game situation



# Player's abilities vs game situation



**No.007**    **50 PICARATS**    **COINS: 60**

Get the three wolves and three chicks seen below to the other side of the river while obeying the following conditions.

- No more than two animals can ride the raft at the same time.
- There must be at least one animal on the raft in order for it to move.
- If more wolves than chicks stay on either side of the river, the wolves will eat the chicks, and you'll have to start over.

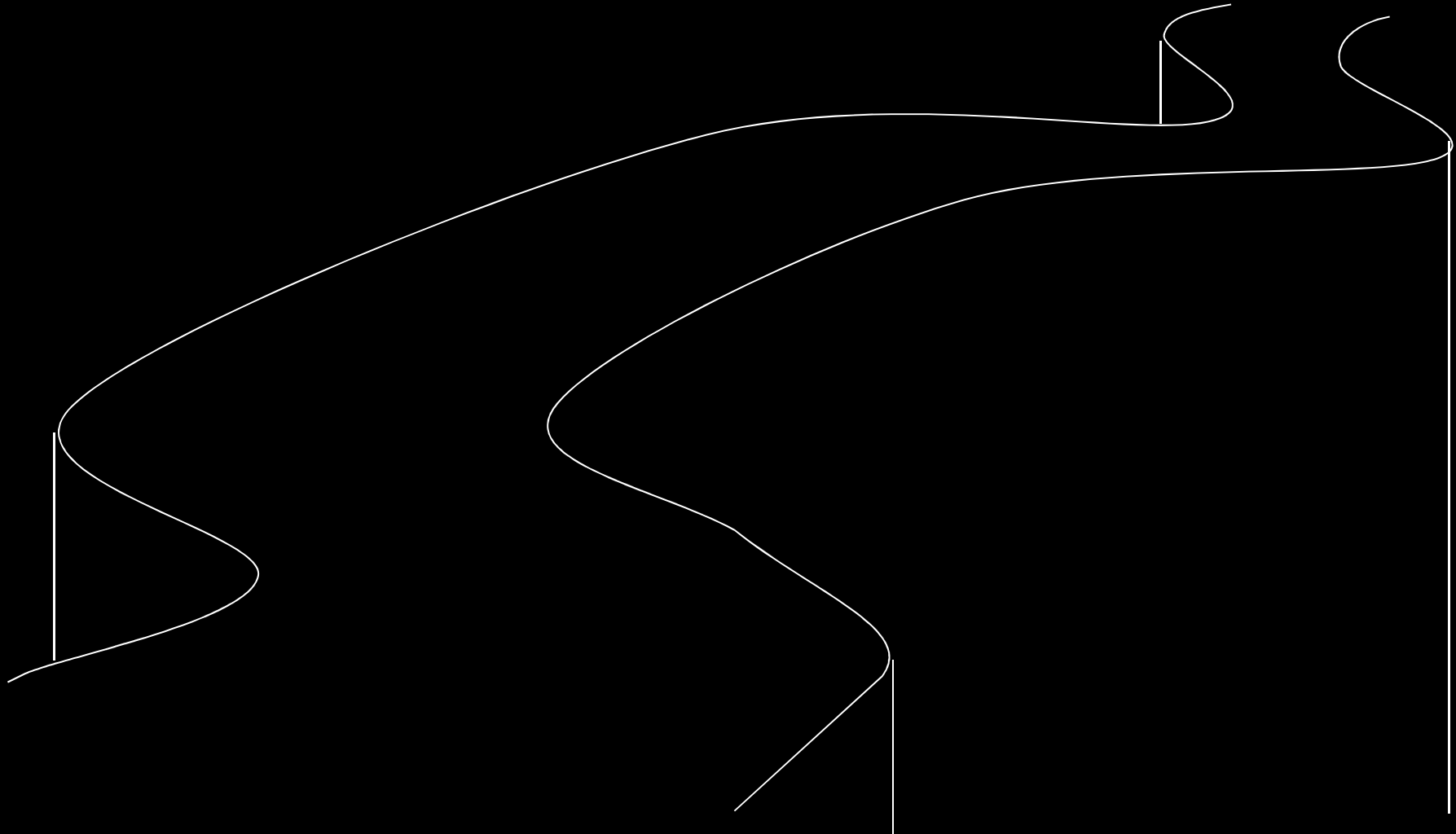
You can move the raft as many times as you like, but this feat can be accomplished in as



- Associative thinking
- Logic

# Risk Reward and Punishment

# Cliff road principle





POS **1** / 6

**1** LAP / 2

**ONCOMING** ☆  
**NEAR MISS** ☆

**MPH 202**

**X3**



3x16 2x16 1x11 1x13

00115610

450

25  
○○○



# Decision theory

A. Tversky, C.R. Fox, *Weighting risk and uncertainty*, in  
 Psychological review  
 N° 102, p 269-283, 1995

	Gain	loss
Poor probability	<ul style="list-style-type: none"> <li>• Risk-seeking for gains of low probability</li> <li>• POKER Lose / Agressive : involve with low chances to win, see the potential gain, may bet high</li> </ul>	<ul style="list-style-type: none"> <li>• Risk-aversion for losses of low probability</li> <li>• POKER Thight / Passive : involve with low chances to lose, see potential loss, bet low</li> </ul>
High probability	<ul style="list-style-type: none"> <li>• Risk-aversion for gains of high probability</li> <li>• POKER Thight / Agressive : involve with high chances to win, see potential gain, bet high</li> </ul>	<ul style="list-style-type: none"> <li>• Risk-seeking for losses of high probability</li> <li>• POKER Lose / Passive : involve with high chance to lose, see potential loss, bet low</li> </ul>

# Gameplay

*L'ensemble des actions (cognitives ou physiques, performances et stratégies) que le joueur déploie et qui influencent positivement ou négativement la résolution de la situation de jeu incertaine dans laquelle il est immergé*

**3**

# **GAME DESIGN**

## Le game design consiste à:

- Concevoir le gameplay (quelle expérience voulons nous faire vivre au joueur?)
- Rationnaliser ce gameplay (spécifier les règles, les interactions, les ressources, les variables, les intentions de réalisation)
- Produire l'expérience (assembler les éléments pour produire la situation de jeu)

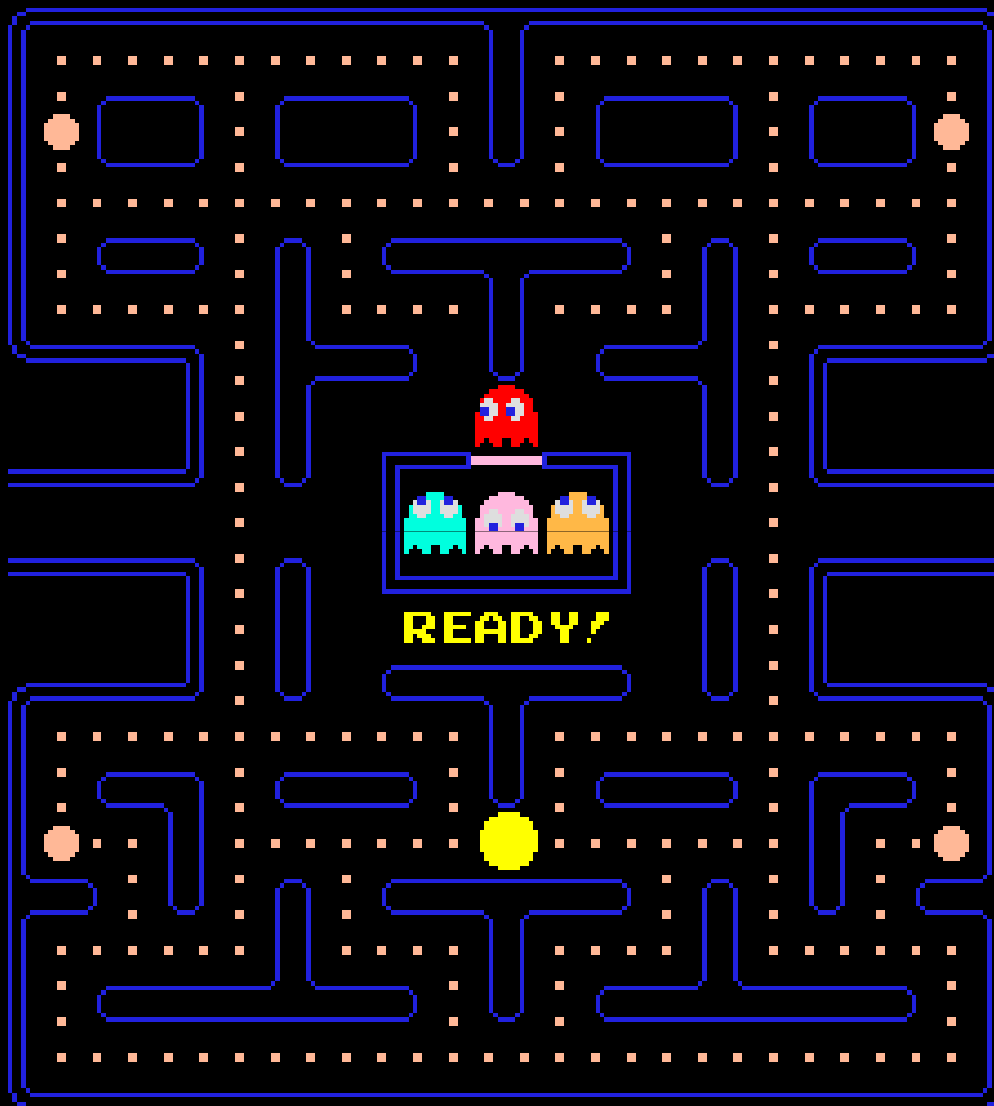
Processus itératif

Un système de jeu



1UP  
00

HIGH SCORE  
00





# Changement d'état

Etat du jeu

attente

Prêt Partez

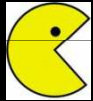
PM Proie

PM  
Chasseur

Perdu

chgt  
niveau

High score



Vivant  
chasseur

Vivant  
proie

mort



Dots  
présents

Pas de  
dots



Comportement  
chasseur

Comportement  
proie



Lifes

Score

# De l'input au challenge



# Variables et ressources Gameplay

Vitesse de pacman

Nombre de fantôme

Vitesse des fantômes

Type de prise de décision des fantomes

Nombre de dots et powerpils

Durée du power pils

Durée de l'avertissement de fin d'effet de power pils

Nb de points par dot/fantôme/pils/bonus mangés

Nb de points pour un 1up

Distance a parcourir

...



Pourquoi je pioche?





# WORLD OF WARCRAFT



Created by  
Berj Doudian  
and  
Andorion  
Website by  
Thirsty  
and worldwar.net

Created by  
Berj Doudian  
and  
Andorion  
Website by  
Thirsty  
and worldwar.net

**LEGEND**  
Regions  
(Player Level Range)  
Mounts Controlled  
Altitudes Controlled  
Traverse Modes  
Insulated Dungeons  
(Player Level Range)



Malgore

Health: 325 / 325  
 Mana: 118 / 118

**Malgore**  
 Health: 325 / 325  
 Mana: 118 / 118

Experience: 0 / 10000  
 Gold: 0 / 10000



Malgore says: Doing with fishing rods... that kills me  
 Malgore says: I'll still wolf in fishing pole  
 Malgore says: you in with a group  
 Malgore says: party  
 Malgore says: joining changed to none yet  
 Malgore says: DIE BY THE POLE WOLF!!!!

578100788



# Gagner perdre dans Wolrd Of Warcraft ?



Manipuler son  
inventaire

Se déplacer

Gérer ses gains  
de niveaux et de  
compétences

Acheter/vendre

Combattre

Parler pour  
gérer ses  
quêtes

Organiser le  
contenu de ses  
barres

Construire des  
objets/recettes

Ramasser des  
ressources /  
minerais

Discuter avec  
les autres  
joueurs





Le lien avec le joueur

# The First Light principle

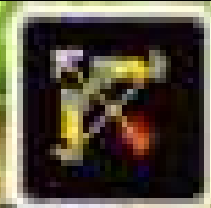


## *L'Active creation of belief*

- Nous sommes pas dans le *Suspension of disbelief*
- Mais dans l' *Active creation of belief*
- (J. H. Murray - Hamlet on the holodeck)

feedback





Menu

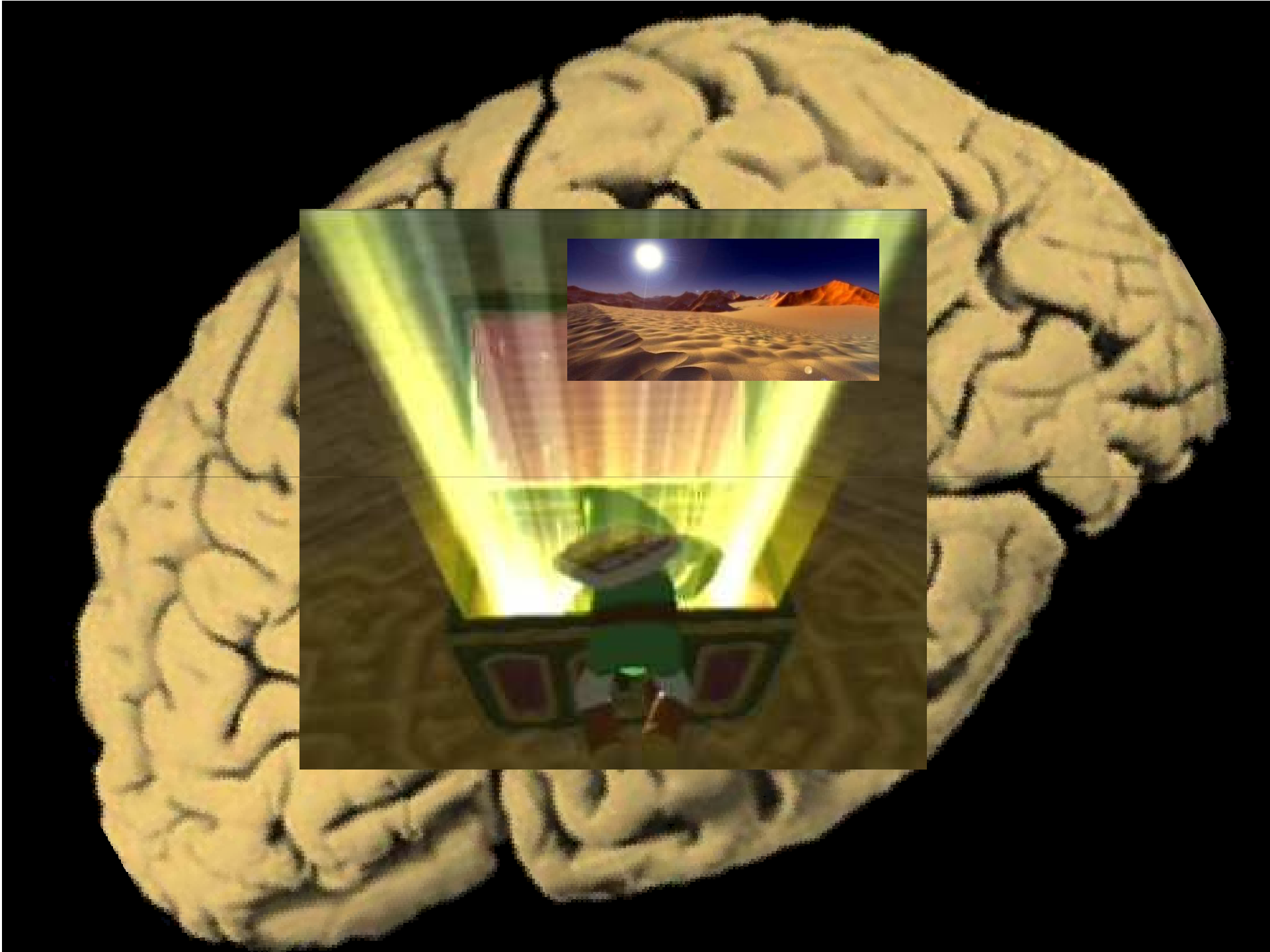
Item





Mise en scène et dimension  
pragmatique du joueur



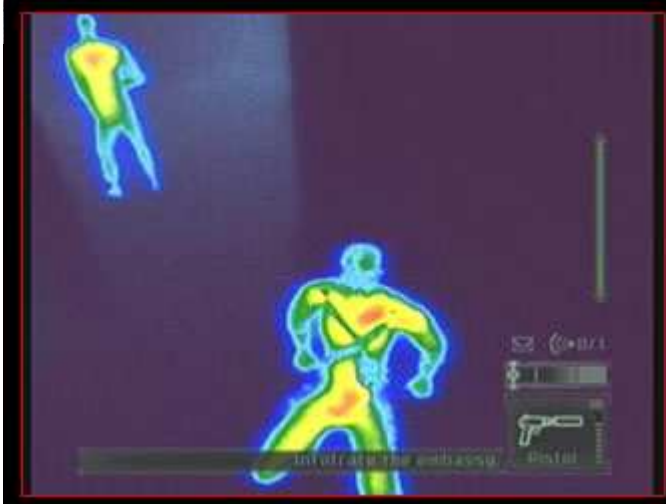
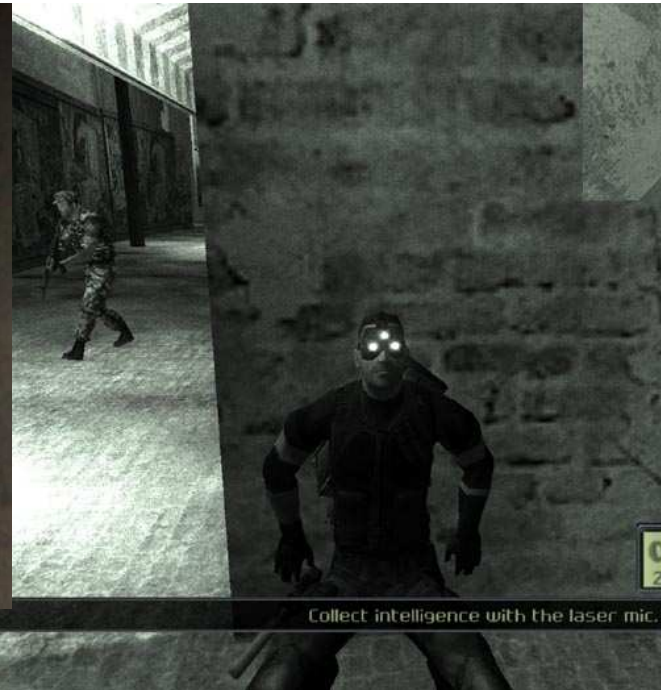


# Set the world with interactions













Levier psychologique

La dernière balle

Le viseur compatissant

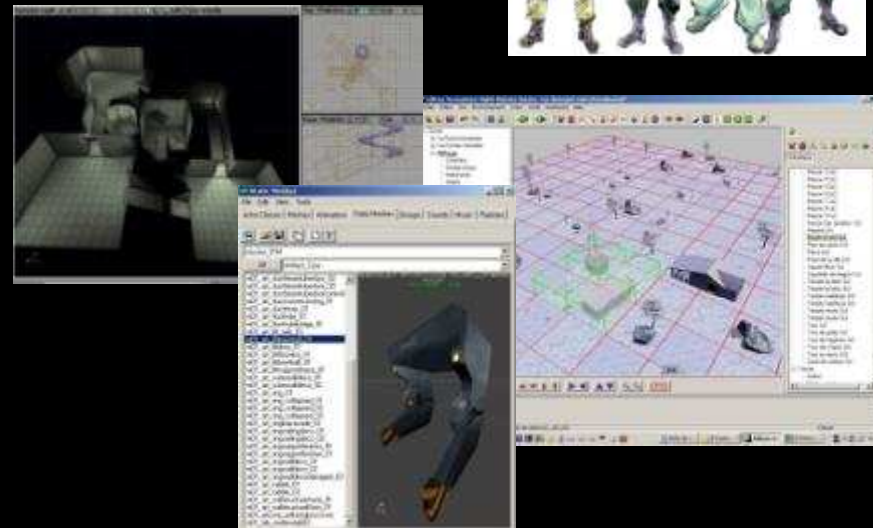
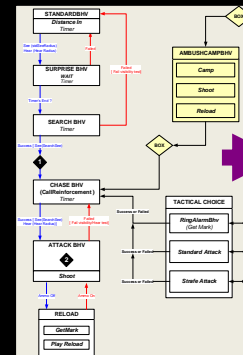
Les % de succès / échec

Drops

# Le level design

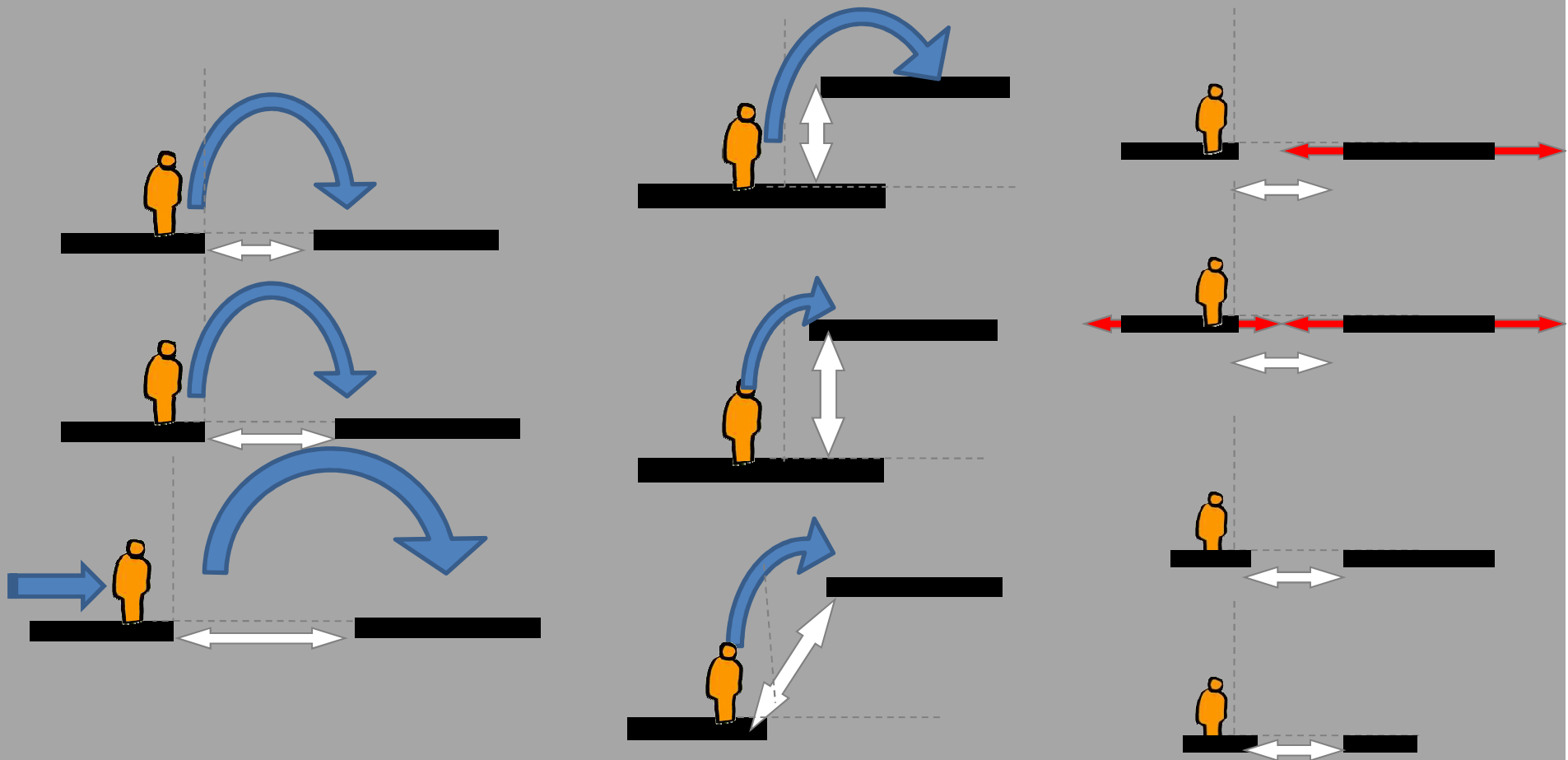
# Game Design au Level Design

- Le game design détermine les systèmes générant le gameplay
- Certains objets et variables de ces systèmes sont déclinées en variations
- Ces variations sont réparties dans le temps et l'espace du jeu par le level design.



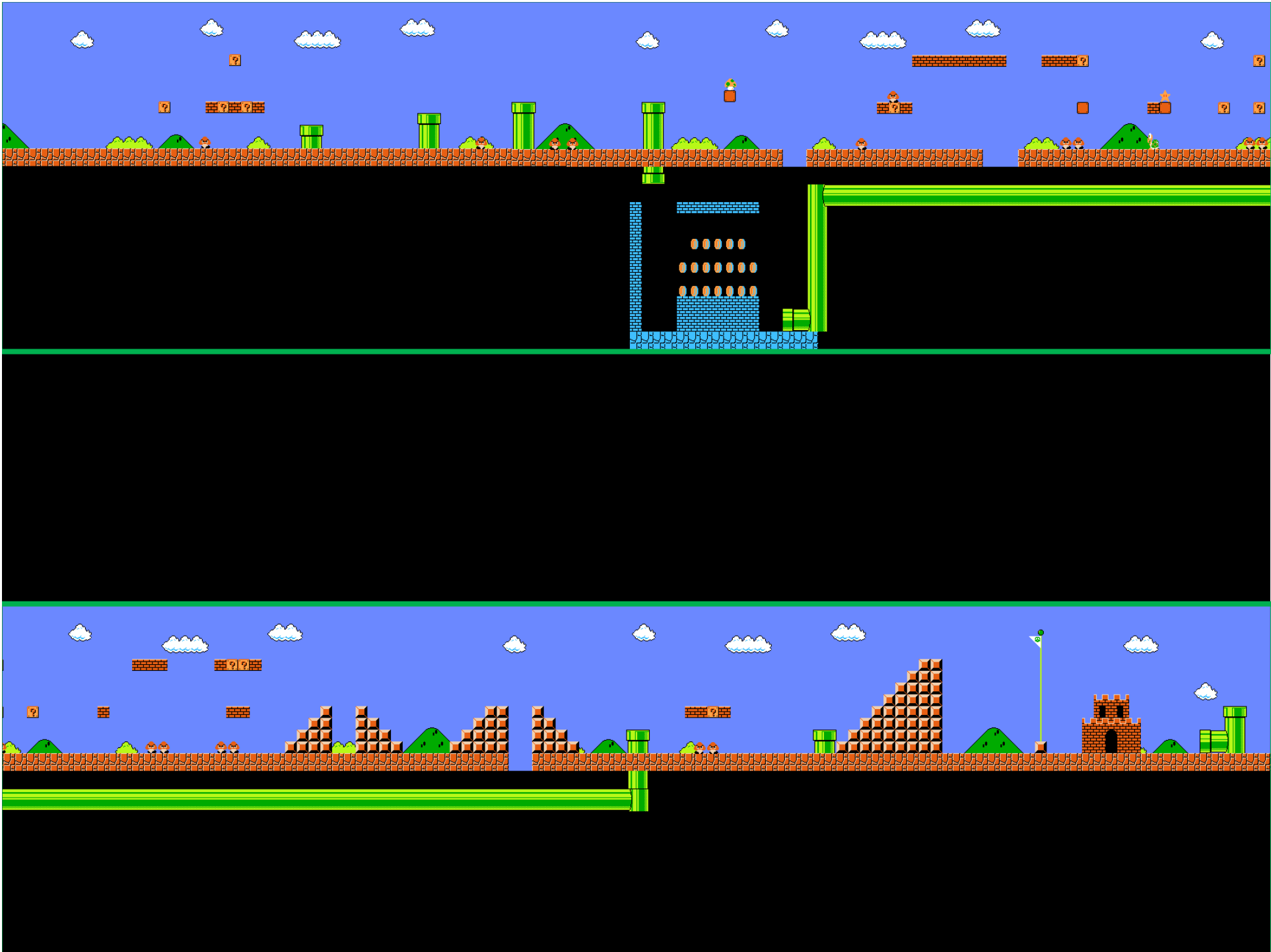
# Super Mario

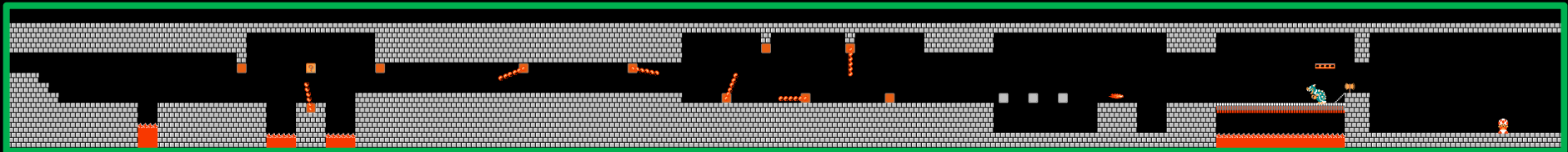
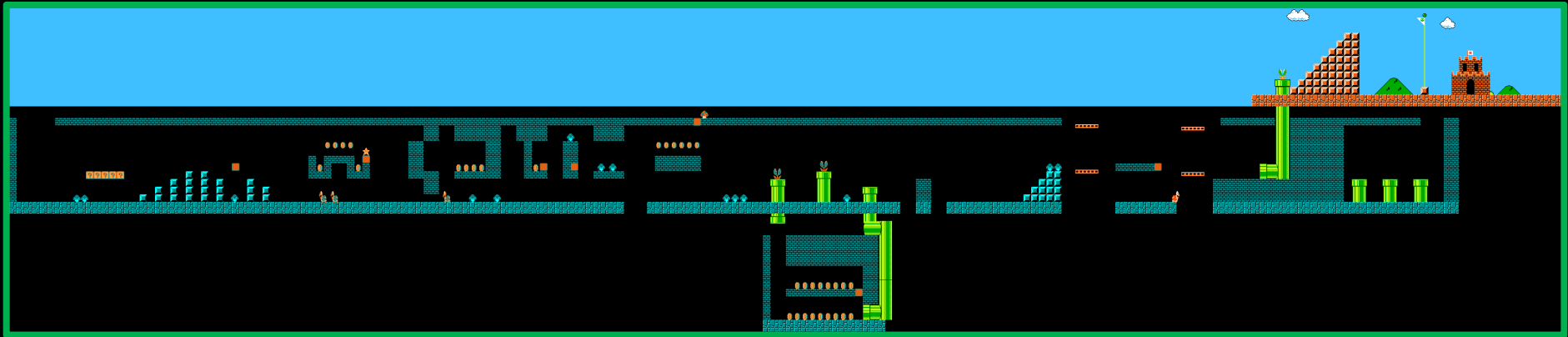
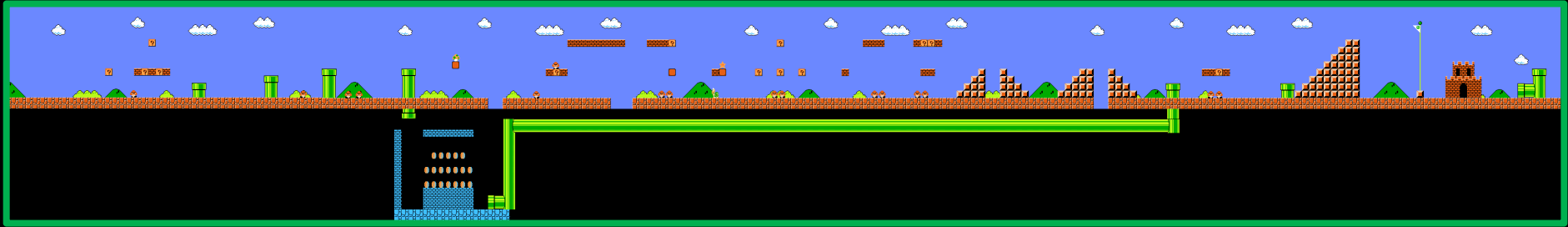
Principle of “jump window” and Challenge variation

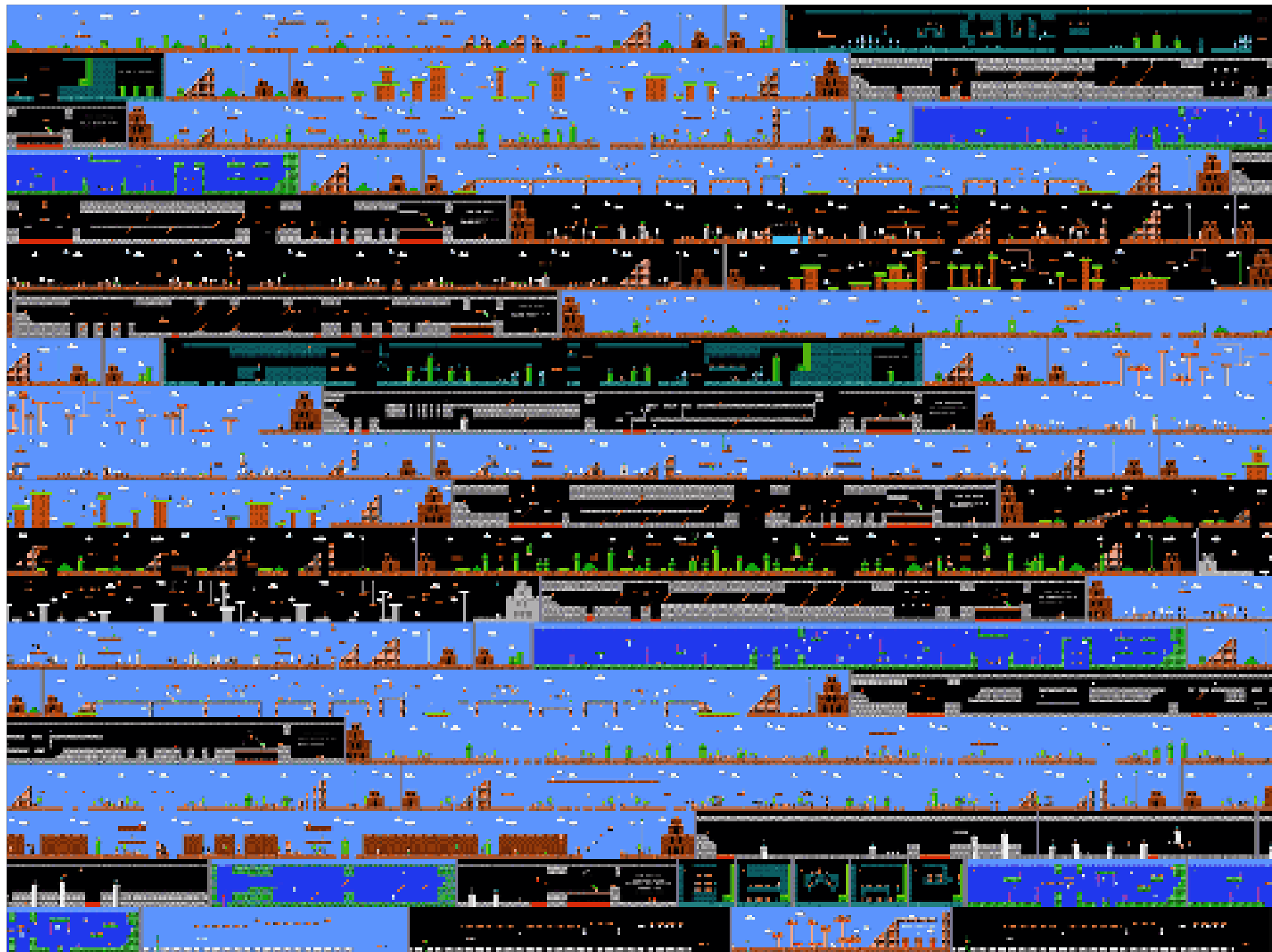






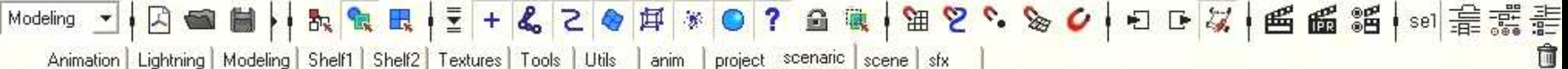








File Edit Modify Create Display Window Edit Curves Surfaces Edit NURBS Polygons Edit Polygons Subdiv Surfaces Bonus Game CPS Help



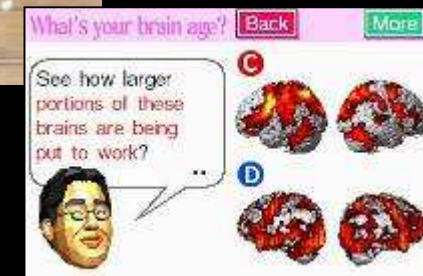
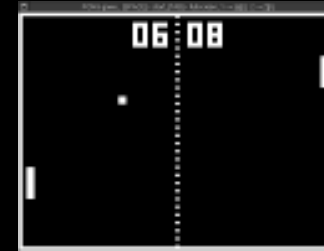
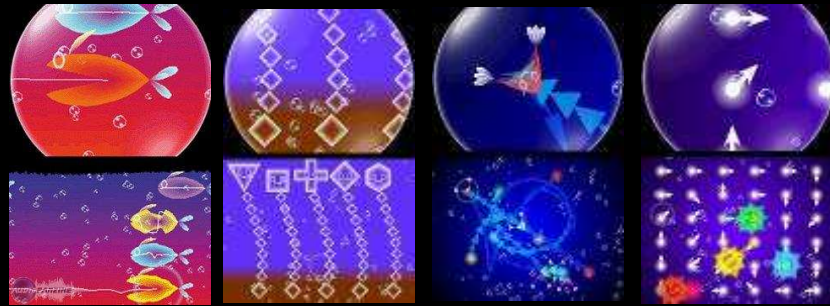
- Display Show Panels
- side
  - IRU
  - IRU\_cine
  - C7S1P01\_group
  - C7S1P02\_group
  - C7S1P01\_trav\_cam
  - C7S1P01\_trav\_view
  - C7S1P02\_trav\_view
  - C7S1P02\_trav\_cam
  - ORSCEMARK
  - GREVENTBOXES
  - defaultLightSet
  - defaultObjectSet
  - junction
  - modelPanel4ViewSelectedSet
  - BOX\_CINE\_07\_B01\_endCiner
  - end\_cine
  - GOBELIN2\_01\_CHASE
  - GOBELIN2\_01\_CHASE1
  - GOBELIN2\_01\_CHASE2
  - GOBELIN2\_02\_CHASE
  - GOBELIN2\_02\_CHASE1



450 500 550 600 650 700 750 800 850 900 950 1000 542.00

0.00 439.50 1011.00 3000.00 No Character Set

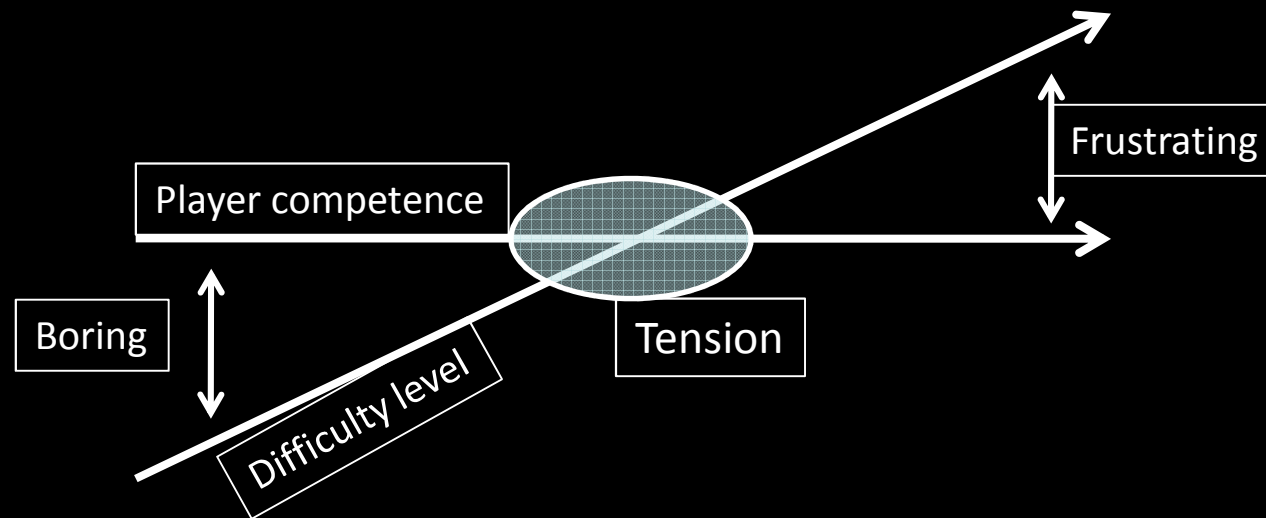
# Tous les jeux n'ont pas besoin de level design





Difficulté et tension ludique

# Why is it important to manage difficulty?

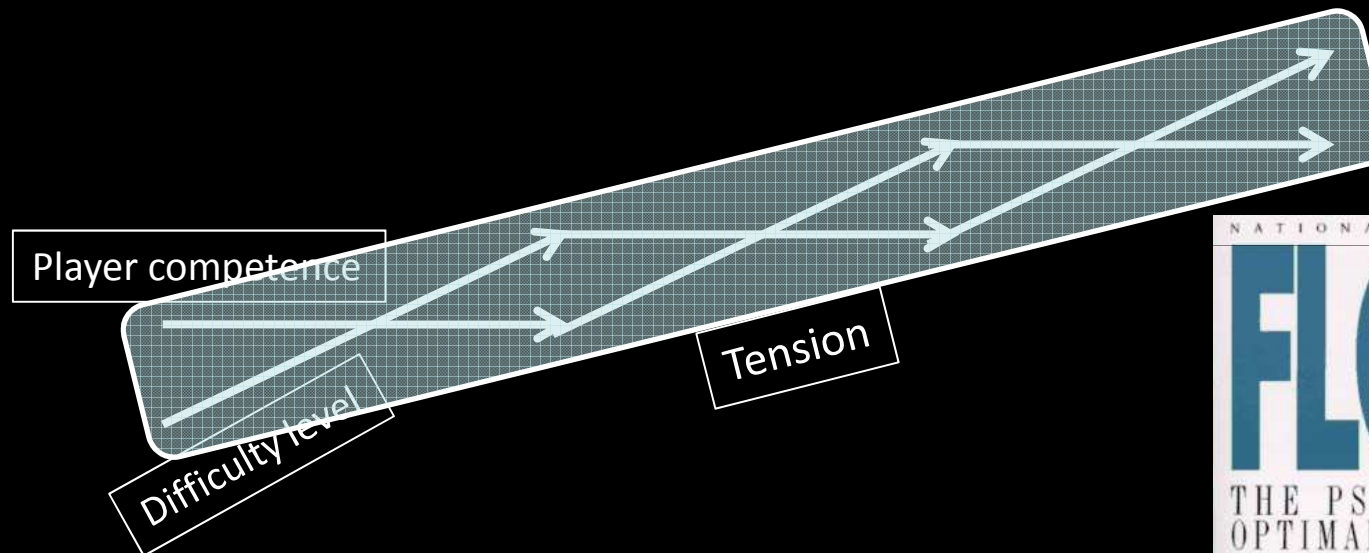


Player competence =  
knowledge of the game,  
virtuosity learned,  
means given by the  
game.

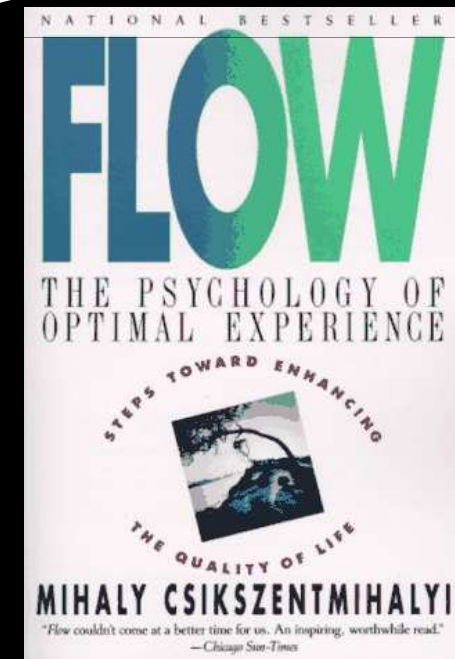
Difficulty level=  
gameplay variables  
linked to the obstacles

# Difficulty and optimal experience

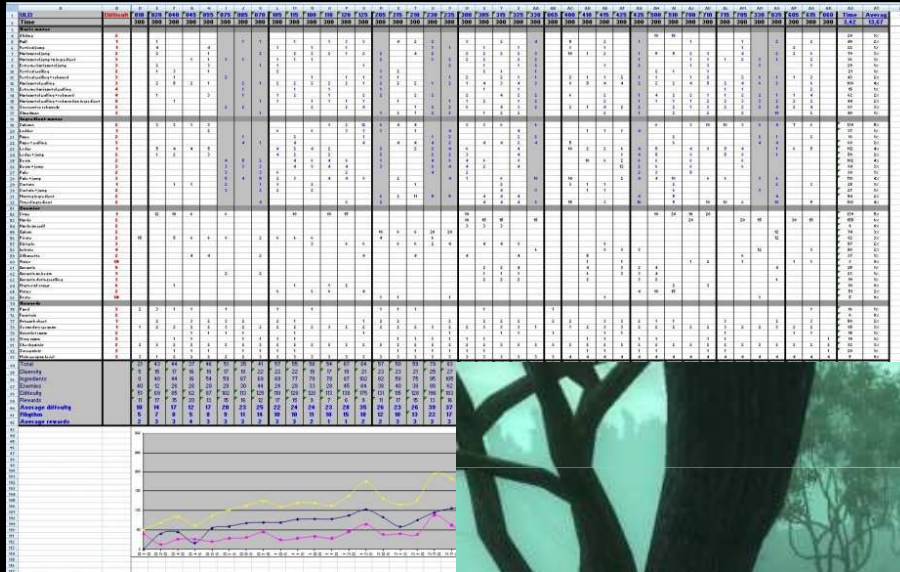
Good difficulty curve : the optimal experience



Les bonus de Mario kart



# Preset and dynamic



# limits of the optimal experience



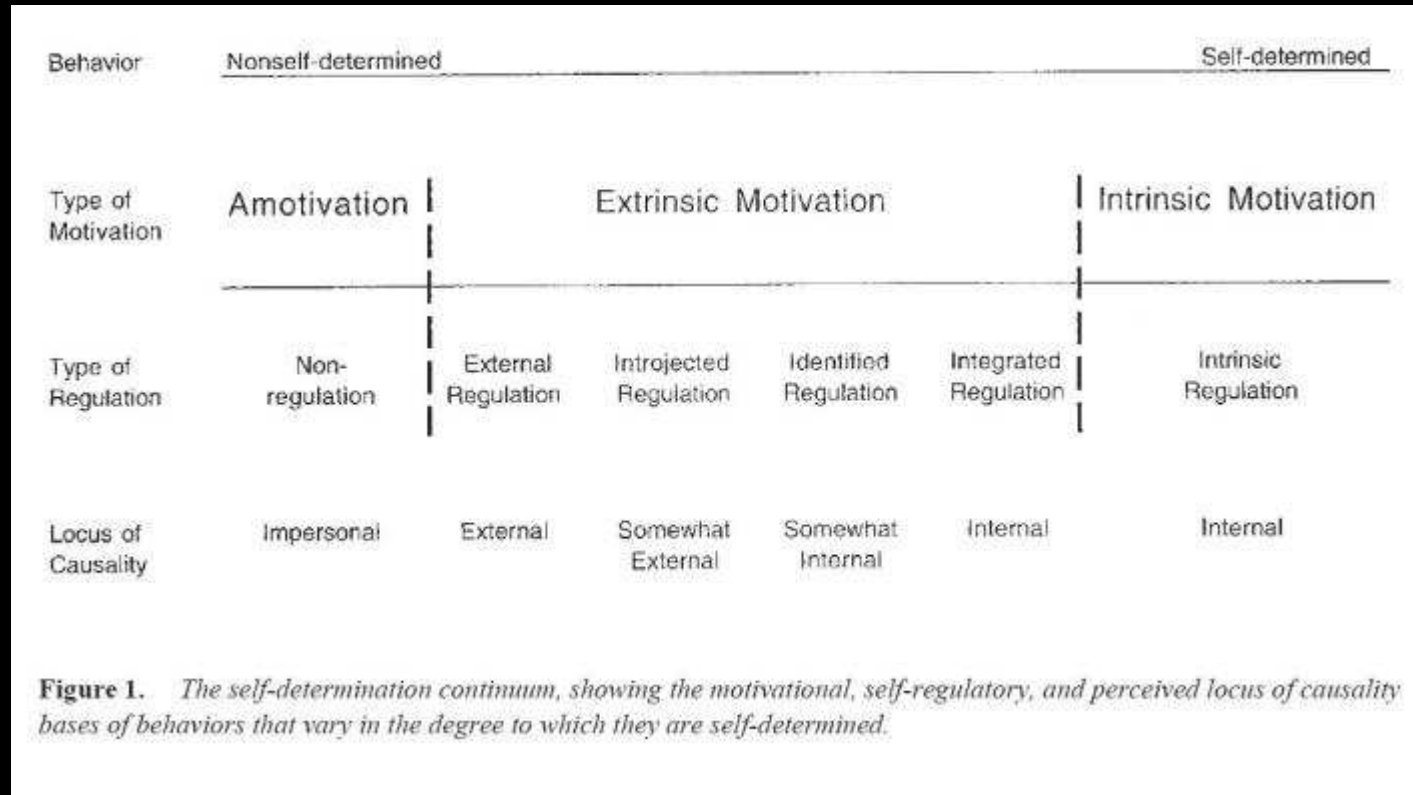
- Some games do not try to maintain player in an interesting challenge, but push him to become skilled. [Tetris example](http://www.dailymotion.com/video/x2ya9l_tetris-invisible_extreme) : [http://www.dailymotion.com/video/x2ya9l\\_tetris-invisible\\_extreme](http://www.dailymotion.com/video/x2ya9l_tetris-invisible_extreme)
- *“Player Performance, Satisfaction, and Video Game Enjoyment”* Christoph Klimmt, Christopher Blake, Dorothee Hefner, Peter Vorderer, and Christian Roth :
  - our experiment found that players enjoyed the FPS the most when they were given a very easy condition with many success events (enemies killed) and very few (if any) failures (own deaths).

# Leviers Motivationnels



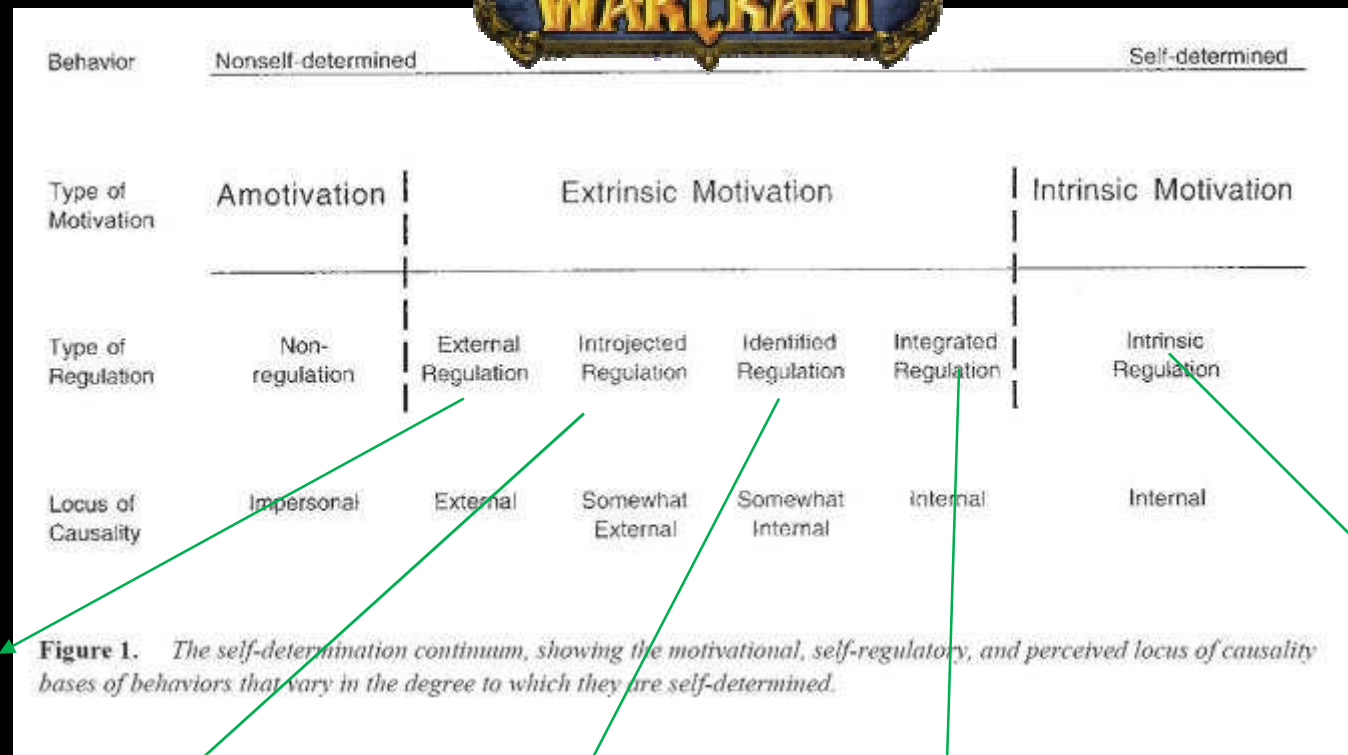
# Motivation theory

Deci & Ryan, (Deci et Ryan 00)



## Les types de régularisation, les profils motivationnels

- la régulation externe désigne une action dirigée vers l'obtention d'une récompense ou l'évitement d'une punition
- la régulation introjectée apparaît en réaction à une pression sociale : sentiment de culpabilité ou de honte, attente de compliments, etc.
- la régulation identifiée conduit l'individu vers des activités que lui-même juge importantes pour son développement
- la régulation intégrée concerne les activités liées à l'estime de soi ou qui sont en accord avec une philosophie de vie.



- Gold
- Drop
- XP point
- Killing mobs

- Pleasure of doing it

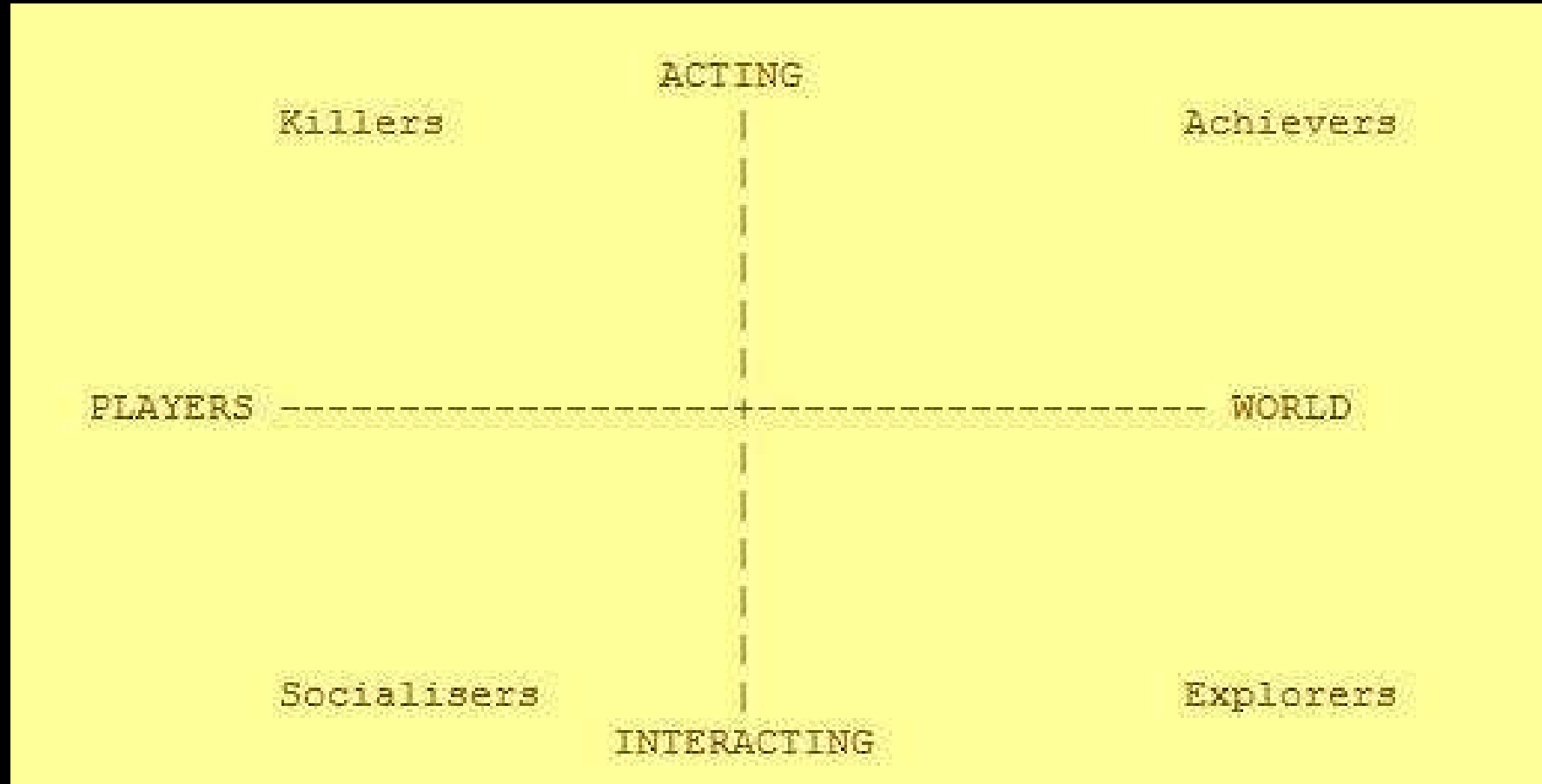
- Level up
- characteristic and competence progression
- Quest solving

- Elaborate relation between action and goal.
- Example: collect these resources + acquire this competence + buying this element = creating a powerful tool

- Gameplay to create identity
- Explore everything
  - Meeting others
  - Achieving all quests
  - Being the best in PVP
  - Being pacifist
  - Defend guild principles
  - ...

# Modélisation du joueur

# Comportementale par Bartle (96)



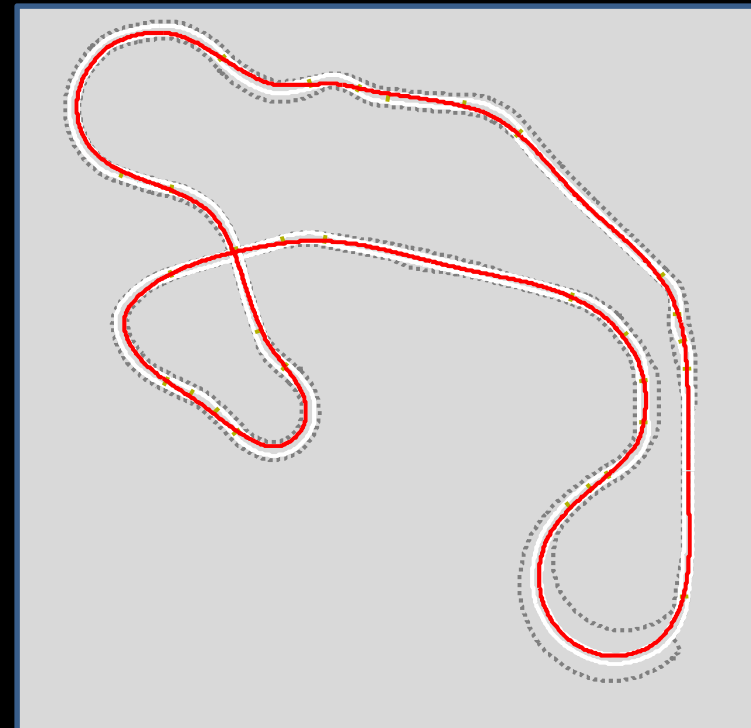
## Bartle's classification

- Achievers: gain "points," levels, equipment and other concrete measurements of succeeding in a game. achieve rewards , having prestige.
- Explorers: dig around, discovering areas, creating maps and learning about hidden places.
- Killers: competition with other, fighting them
- Socialisers: interacting with other players or elaborate NPCs, meet others in-game or outside of it.

# Performance modeling



Segments	$a_1$	$a_2$	$a_3$	$a_4$



# Modèle du joueur dans le gameplay : recherche menée au CEDRIC

- Performance, with efficiency and effectiveness
- Means and strategies
- Risk aversion profile, with utility and ambiguity
- Pay off preference
- Motivation type, behavior, regulation, locus of causality
- Completion and perseverance profile



Contexte narratif

Formalisation

Caméra Control Animation Collision

Courbe d'apprentissage

4

**MATURITE**

KANE MEETS SUSAN #1  
 EXT. DRUG STORE (3 STREET WEST SIDE - N.Y.) & INT. SUSAN'S 1ST APARTMENT.

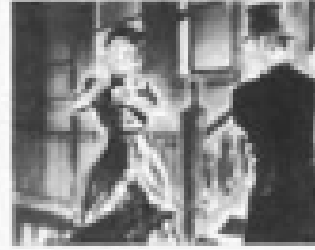
SEE OTHER CARDS FOR REAR.



TAKES IN MR. KANE STANDING OUT  
 OF DOOR STORE, AND HIS FACE  
 BEGINS TO SMILE - (CUT TO) -



MR. KANE SEES HIS APARTMENT  
 AND IS HAPPY IN FEELING.



KANE MEETS MISS SUSAN  
 FIRST TIME - (CUTTING IN)



AS MISS SUSAN PUTS THEM  
 TO DRIVING A CAR THROUGH IT



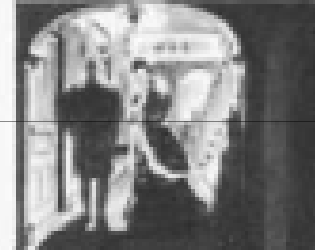
MISS SUSAN PLAYS WITH HIM  
 WITH HER HAND AT HIS AND



THE GIRL TAKES SUSAN INTO  
 SUSAN'S HANDS AND SHE  
 IS GETTING AWAY OF



AND THEY ENTER APARTMENT  
 HOME.



MISS SUSAN GOES TO  
 GO INTO THEIR ROOM AND  
 CUT TO



MISS SUSAN GOES TO  
 ENTER FOLLOW UP



KANE GOES TO SUSAN'S  
 EXAMINING THE GIRL AND  
 SUSAN IS OUTSIDE IN BACK ROOM



THE GIRL HAS A LETTER IN  
 HAND AND THEY GO TO SUSAN'S  
 IN CLOSING UP - (CUTTING TO)



SUSAN GOES TO SUSAN'S  
 FOLLOWING BACK THROUGH KANE  
 GOING TRACK



THE GIRL - FROM HERE ON  
 TO MISS SUSAN'S



SUSAN GOES TO SUSAN'S  
 MR. KANE ENTERS FROM  
 REAR.



CHANGE BETWEEN THE  
 THREE AND WITH MISS  
 SUSAN - (CUTTING)

Galerie de jeux

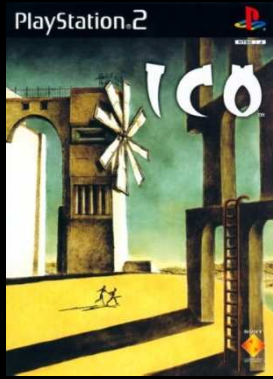


# Expérience émotionnelle : Final Fantasy VII (1997 PS1)

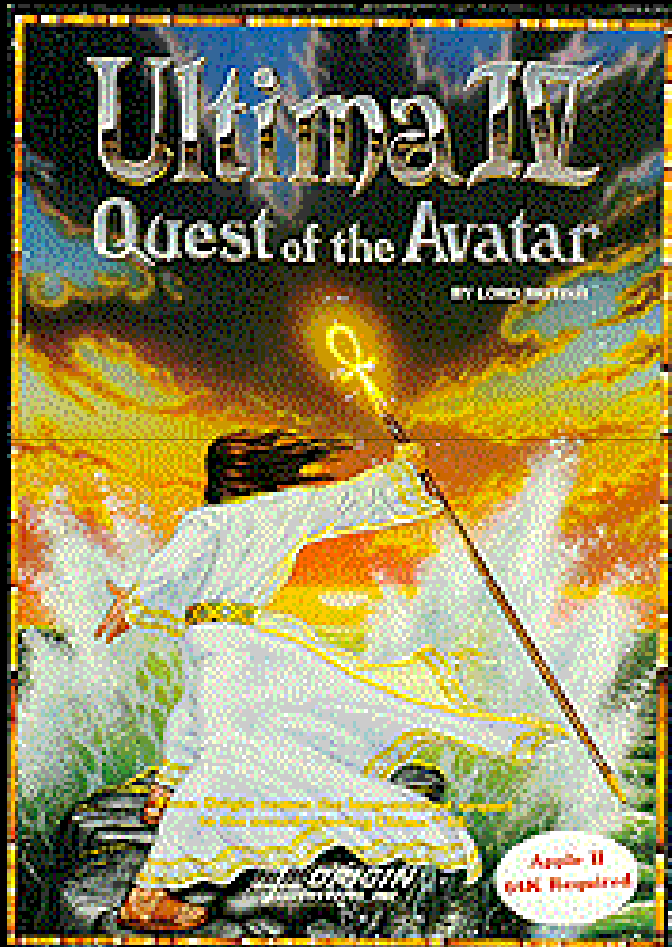
## Aerith's death







# La moralité comme thème



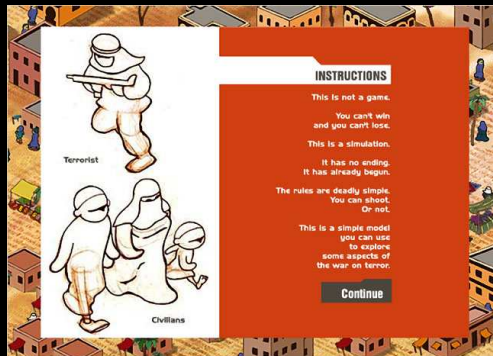
(PC 1985)

To win: Improve moral values such as honesty (in game by paying with the right amount a blind seller. Or stopping open chests to steal their content.)

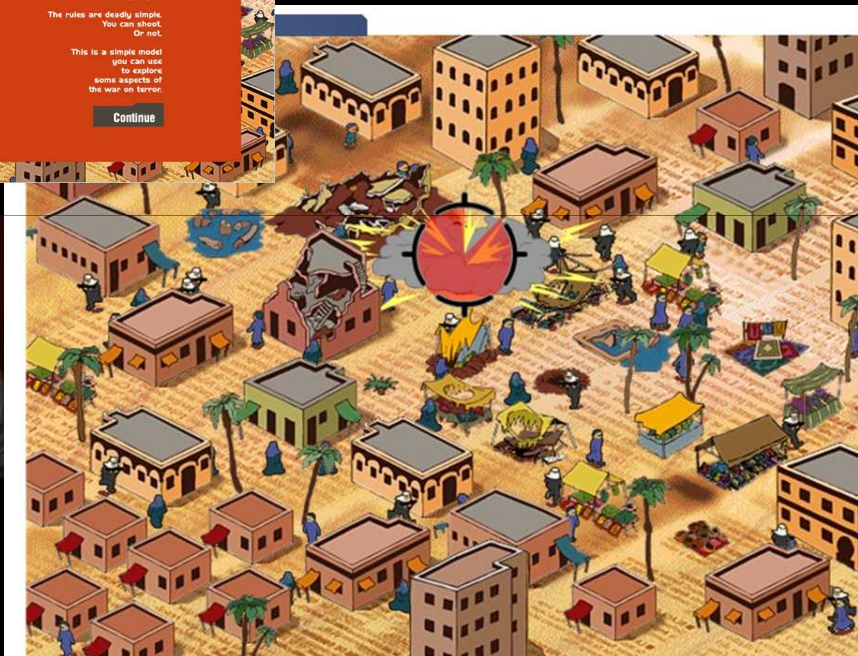


# Le news game

## Les impacts sociaux ou politique



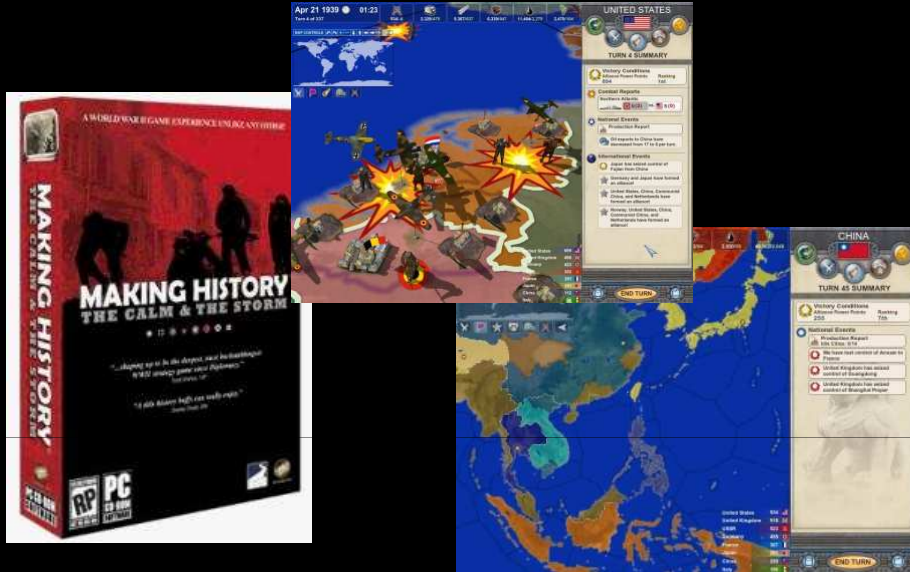
### September 12th



- <http://www.newsgaming.com/games/index12.htm> <http://www.selectparks.net/archive/escapefromwoomera/>



# Comprendre une situation historique ou actuelle



Développé par Muzzy Lane, studio fondé par un groupe de chercheurs du M.I.T. (USA), *Making History : The Calm & The Storm* a été conçu comme un **outil pédagogique** permettant aux collégiens et lycéens nord-américains d'**apprendre et de comprendre l'histoire, les enjeux, la géographie et l'économie de la Seconde Guerre Mondiale**, tout en s'amusant. Une autre approche du jeu vidéo.



Students Burak, Eric Brown, Eric Keylor, Olive Lin, Tim Sweeney and Victoria Webb, in collaboration with Carnegie Mellon faculty, are designing the videogame simulation of the Israeli-Palestinian conflict

# Darfur is Dying

Darfur Is Dying

**You have been captured by the militia**

You will likely become one of the hundreds of thousands of people already lost to this humanitarian crisis.

Women routinely forage for water, firewood and food. While an adult woman can carry a heavier load back to her family, she faces a grave risk of rape and abuse if caught.



UI Panel:

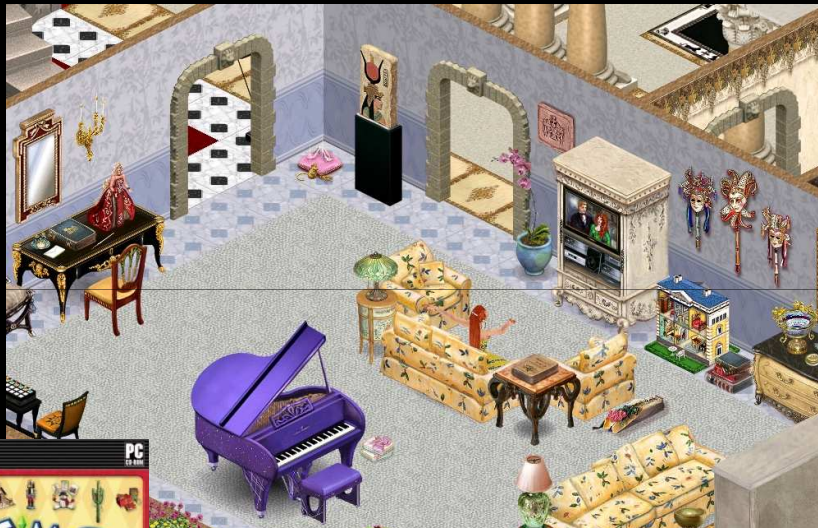
- URGENT [TAKE ACTION] 60
- Threat Meter
- Camp Health
- Day Number: 0
- Water Supply
- Food Supply
- HELP
- FORAGE FOR WATER
- Character: Poni, Age 13

Make people understand the urgency of action in Darfur by playing a decimated family in a near impossible survival game.

<http://www.darfurisdying.com>

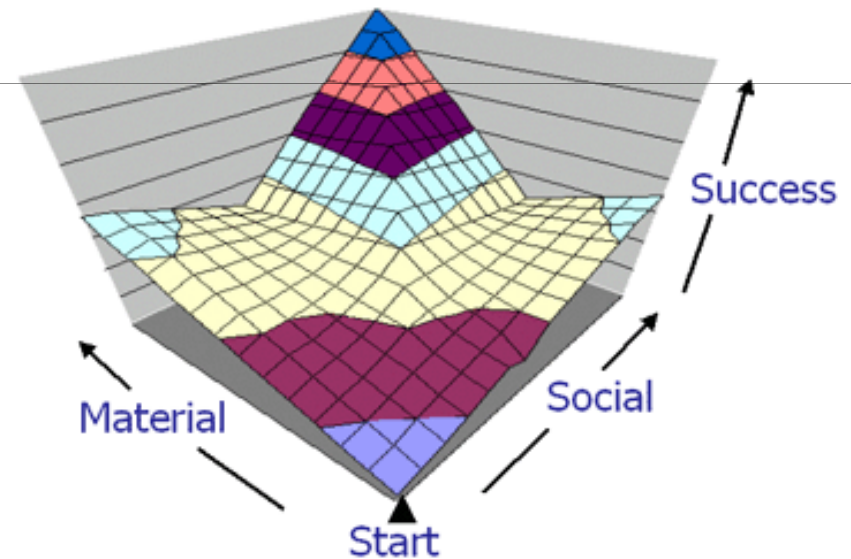
# Les Sims

L'expérience interactive de la maison de poupées



Le système de jeu portant un regard particulier sur le bonheur

## Gameplay Landscape (Sims)



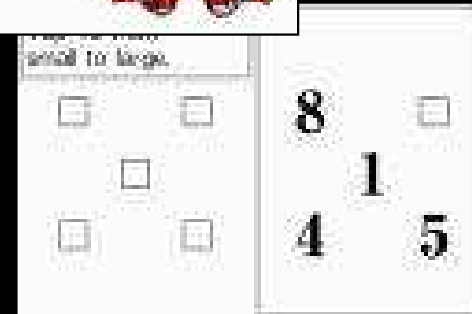


# De possibles bénéfices réels

**Wii Fit:**  
Perdre du poids



**Brain age :**  
Stimuler nos  
performances cognitives?



# Enjeu santé

## Cyberthérapie

Réduire nos phobies



## SG Cogn

Lutte contre Alzheimer



PEARSON

Silver Burdett Ginn  
Religion  
Scott Harrison

PRESENTS...



# Gospel Champions

Monthly Catholic Action Adventure PC Video Games By



**Buy Now!**

Home

Why Games

Giving The Games  
To Your Kids

Playing the Game:  
Experiencing the Story

Preview Gospel Stories

Diocesan Training

Catholic Teachings

Press Release

Free Sample Game

Contact Us

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TERMS OF USE

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## HOME > PLAYING THE GAME

Gospel Champions takes kids back to Biblical times by intertwining 3D action/adventure gameplay with sequenced elements of the Gospel stories. Children control their Zack or Mary Martha character to avoid adversaries and solve puzzles that lead them to an animation of each part of the story. Once they have found all the story elements, they then perform tasks related to the story. For example, they might bring five sick people to Jesus to be healed or help Zacchaeus pay back those he cheated. The game has three different skill settings for early, middle, and late elementary children.

**Preview the  
Zacchaeus  
sample game**

1. Read and Hear the  
Bible Story Summary



3. Find Story Location;  
See And Hear  
The Bible Story



2. Begin Action  
Adventure Gameplay  
In Story Setting



4. Perform Story-  
Related Tasks and  
Acts of Service



FLASH PLUGIN REQUIRED

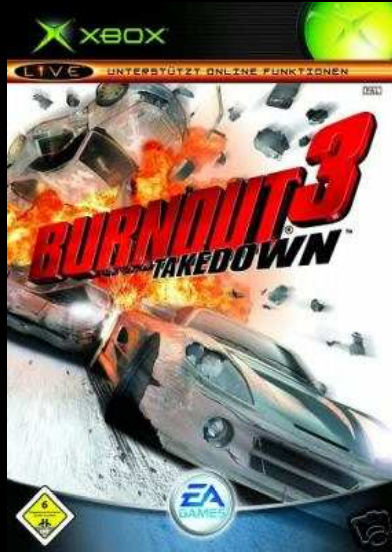


# Super Columbine Massacre RPG



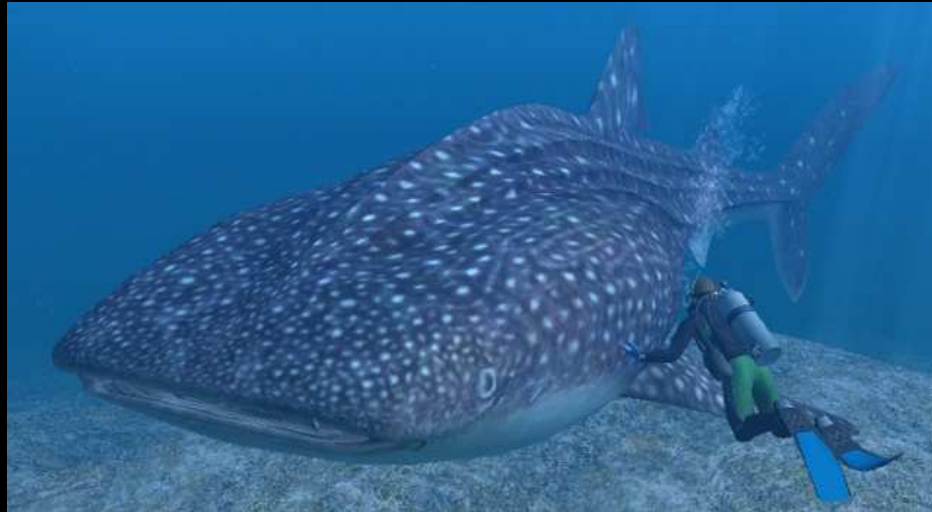
<http://www.columbinegame.com/>

# Une sensation

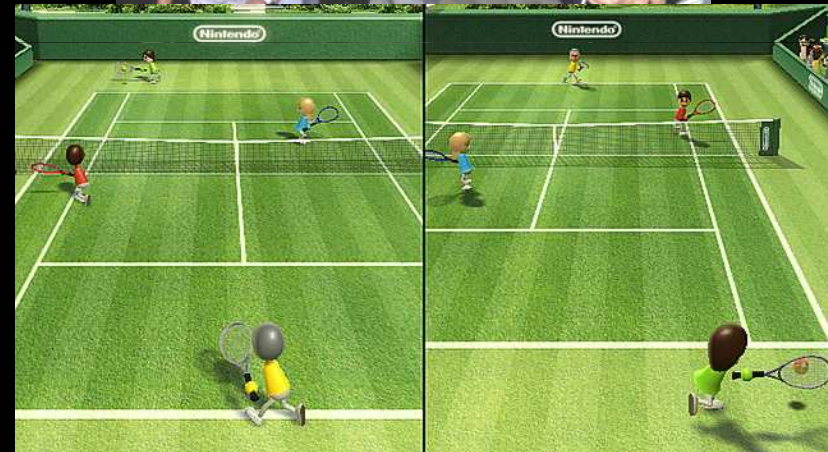




# Une autre sensation



# Expérience sociale



5

Déjà là







## Mylo project

[http://uk.xbox360.ign.com/dor/objects/14354412/lionhead-mylo-project/videos/lionhead\\_natalproject\\_e3.html](http://uk.xbox360.ign.com/dor/objects/14354412/lionhead-mylo-project/videos/lionhead_natalproject_e3.html)



# Le jeu dans toutes les industries ?



**SERIOUS GAME EXPO**  
9 DÉCEMBRE 2009



*Liberté • Égalité • Fraternité*  
RÉPUBLIQUE FRANÇAISE

**NATHALIE KOSCIUSKO-MORIZET**

SECRETAIRE D'ETAT CHARGÉE DE LA PROSPECTIVE ET DU DEVELOPPEMENT DE L'ECONOMIE NUMERIQUE

## COMMUNIQUE DE PRESSE

Mise en œuvre du volet numérique du plan de relance  
Lancement des appels à projets Web 2.0 et Serious Gaming  
Paris – 27 mai 2009

Suite à la présentation, au conseil des ministres du 6 mai dernier, du volet numérique du plan de relance, Nathalie Kosciusko-Morizet donne le coup d'envoi de sa mise en œuvre avec le lancement de deux appels à projets dédiés au serious gaming et au Web 2.0. Financée à hauteur de 30 millions d'euros, cette initiative portant sur des domaines jusque-là peu reconnus, marque la volonté du gouvernement d'accélérer la mutation numérique de l'économie comme de la société françaises.



# Le jeu Social / Le jeu Service





# Mettre à l'épreuve la bulle ludique

**IT'S ALIVE!**

## BOTFIGHTERS 2

*Daydream*

Pervasive street adventure  
Join the rebel fight against Global Nation  
Tactical battles where brainpower matters  
Build the best robot for your career  
Multiplayer and singleplayer missions with real and virtual enemies  
Strong community features  
3-4 months episodes with storyline

**J2ME client**

SHIELD  
HEALTH  
EMMA: COMON BOYS, SHOW ME SOME OF YOUR GUNS

SHIELD  
HEALTH

SELECT MENU

**PC (web) community**

GLOBAL NATION

THE REBELS ARE UNITED

PRIXARS

LOGO

WORLD'S PREMIER LOCATION BASED MMO. THE BATTLE IS ON THE STREETS.

TELLA

MORE INFO PLAY

# Jouer tout le temps et partout

Stéphane Natkin / Jesse Schell



ARG / Transmedia / Géolocalisation

THD / TV interactive

...



# ATARI VIDEO COMPUTER SYSTEM™

## MORE GAMES - MORE FUN



ATARI® brings a powerful computer to your home. Includes the 4096 word memory, built-in sound system. The system allows you to play a library of games with enhanced "Color Program" technology.

The package includes the "Control Game Program" for Atari, Inc., and the "Control Game Program" for Atari, Inc. (Atari, Inc. is a registered trademark and service mark of Atari, Inc.)

- Having the Features of the ATARI Video Computer System™ game:
- Thousands of Game Screens
  - On-Screen Scoring
  - Difficulty Options
  - Most Color on Color Televisions
  - No Batteries Needed!



MODEL NO. CX-2600R



**U.S.** ATARI, INC. 2600 RAYBURN DRIVE, BERKELEY, CA 94705, U.S.A. © 1982 ATARI, INC. ATARI, THE ATARI LOGO, AND THE ATARI VIDEO COMPUTER SYSTEM™ ARE TRADEMARKS OF ATARI, INC. IN THE U.S. AND OTHER COUNTRIES. MADE IN HONG KONG.

# TWO PICTURES ARE WORTH A THOUSAND WORDS.

*Atari vs. Intellivision?  
Nothing I could say would be  
more persuasive than what your  
own two eyes will tell you.  
So compare for yourself.  
Game for game,  
feature for feature,  
I think you'll find  
Intellivision  
is clearly superior.*  
— George  
Plimpton —



ATARI ELECTRONICS®  
**INTELLIVISION®**  
Intelligent Television

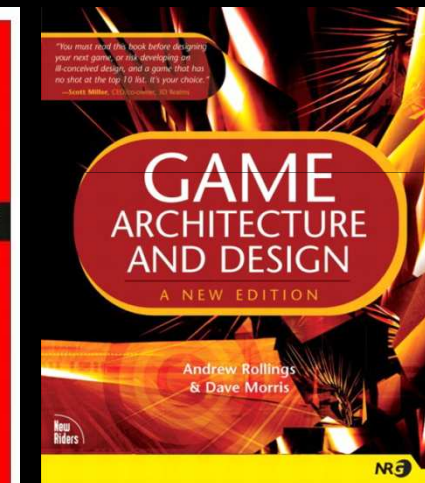
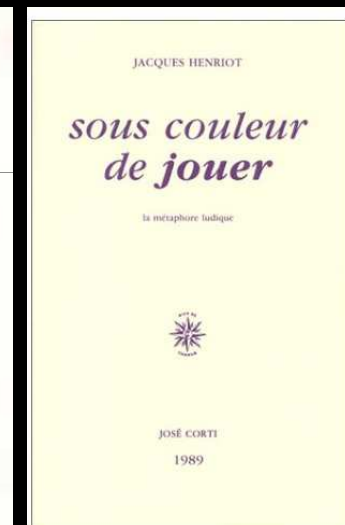
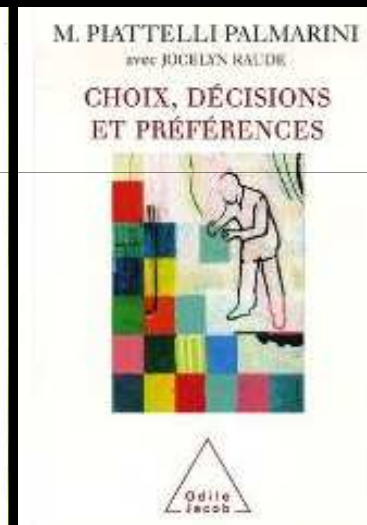
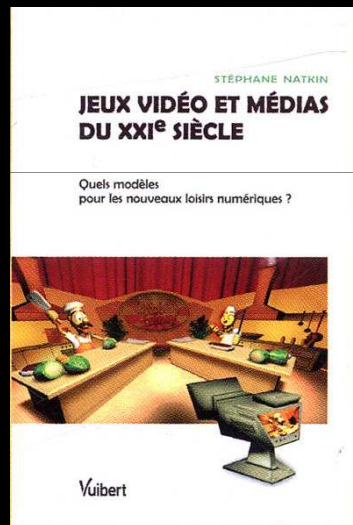
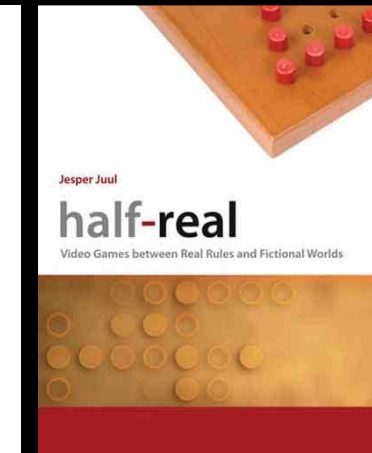
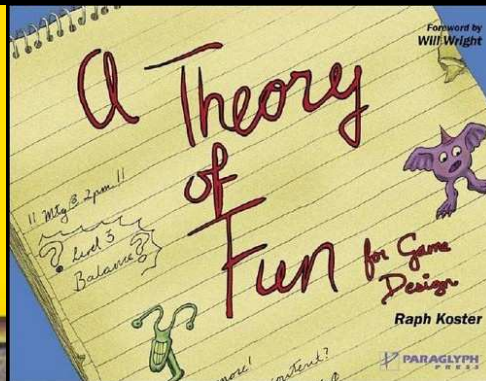
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[emmanuel.guardiola@seasideagency.com](mailto:emmanuel.guardiola@seasideagency.com)

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