

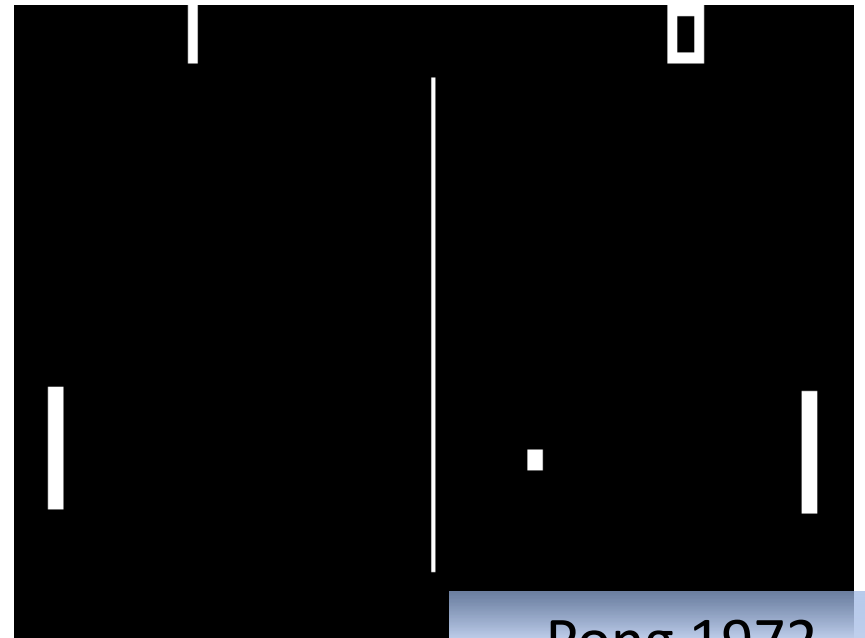
Enjoyment of Video Games

Motivations and Mechanics



Photorealistic Graphics
Interactive Storytelling
Augmented Reality
Mobile Gaming
Social Gaming
Casual Games
Artificial Intelligence
Edutainment
Silver Gamer
Simulation
Virtual Reality
Motion Controller
Ubiquitous Gaming
Gaming Revolution
Serious Games
Gamification





Pong 1972





GTA: San
Andreas 2006





Crysis 2008





Minecraft 2011



Creations in minecraft



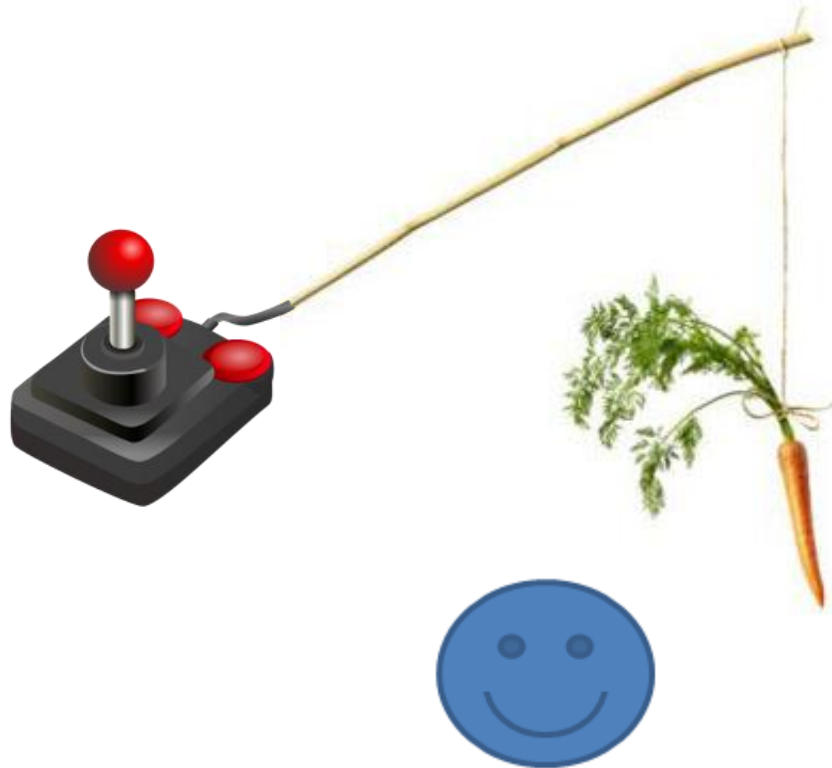
01
s, 16 chunk updates



MINECRAFT

Addiction Redefined!

Motivations to Play



What is Play?



Play is freely chosen, **intrinsically motivated** and normally associated with pleasure and enjoyment

Play is a **make-believe activity** without serious consequences

Johan Huizinga, *Homo Ludens* (1935)



Play as preparation



Theory inspired by the observation that play often mimics adult themes of survival



Play to gain skills

play trains e.g. concentration, problem solving, social skills and mood management



© Ron Niebrugge / WildNatureImages.com



Curiosity

...is an emotion related to natural inquisitive behavior such as exploration, investigation, and learning

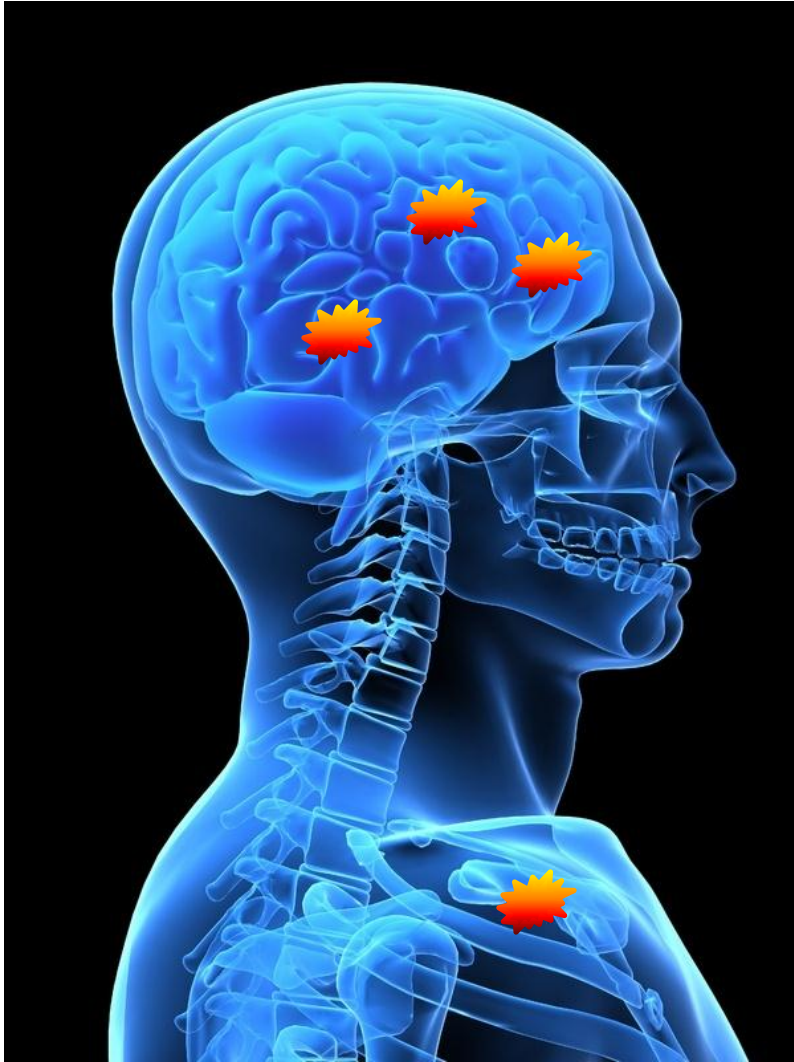




Exploration in Video Games

Players seek for
ressources,
treasure,
items,
adventures,
challenges,
surprises,
story twists,
etc.





Neurochemical reward

The brain rewards successful learning (“aha-moments”) by releasing **endomorphin**, an opiate that we experience as pleasurable.



Game designer Raph Koster:
„Fun is just another word for learning“



“Fun from games arises out of mastery. It arises out of comprehension. With games, learning is the drug.”





Play is in our nature!



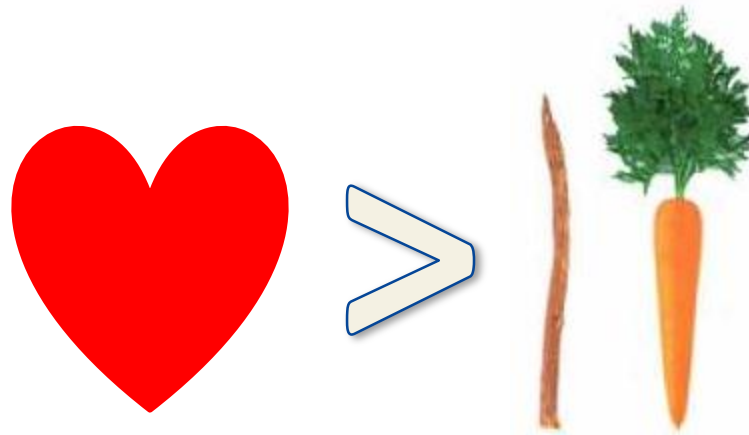
What is Play?



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intrinsically motivated
and normally associated with pleasure and
enjoyment



Intrinsic Motivation



motivation comes more from **intrinsic** drivers
than from extrinsic



Self-Determination Theory

AN APPROACH TO HUMAN MOTIVATION & PERSONALITY



Autonomy



Competence



Relatedness



Perceived Autonomy and Competence



Open World / Sandbox Games



Social Relatedness





GRAVE



DIGGERS

[Guild Roster](#) [Rules](#)

[Forum](#) [History](#) [Apply](#)

LATEST NEWS

The Gravediggers <Gravediggers> official Guild website is Live! We are a new World of Warcraft guild located on The Underbog realm. There are currently only (6) Gravediggers and we are looking to start recruiting very soon. Our goal is to maintain an active but casual Guild with friendly and mature members.



FEATURED STORY



LICH KING DING

Lich King TheGrizzly finally dinged 70 and slow and lowly regular flying mount. Time to for a new flying mount and upgrading his Arena and battlegrounds.

RECRUITING

-  WARRIOR
-  DRUID
-  HUNTER
-  MAGE
-  PALADIN



MMORPGs like
World of Warcraft



GUILD ADD-ONS

Stockade Pauldrons



Shooter games like
Counter Strike



HET GRATIS ONLINE PIRATENSPEL

LOGIN WACHTWOORD VERGETEN?

USERSNAAM

WW

LOGIN

REGISTREREN

SEAFIGHT SPELER	
NU ONLINE:	23.862
AANGEMELD:	33.908.873
Nederlands	



SCREENSHOTS INGAME VIDEO TRAILER

NIEUWE ZEEKAART
NIEUWE LEVELS!
NIEUWE ITEMS!
DOE NU MEE!!!

Browser games
 like *Seafight*

Seafight - het online piratenspel:
 • speel samen tegen duizenden echte spelers
 • je hoeft niets te downloaden of te installeren
 • ervaar een wereld vol avontuur en spelplezier
 • en verdt voor maximaal 610.000



NIEUW NIEUW N



Baht (Bank)

B\$9,504

Where's my cash?

Health

107/107

Energy

252/252

Stamina

9/9

Experience

57346/57600



Level
95

[Home](#)[Jobs](#)[Fight](#)[Businesses](#)[Inventory](#)[Godfather \(29 \)](#)[Profile](#)[My Mafia \(107\)](#)

FREE GIFTS! GIVE BACK TO YOUR MAFIA FAMILY

[Click Here](#)

Yakuza

97 / 1500

What's this?

[Hostile](#)[Suspicious](#)[Neutral](#)[Trusted](#)[Honored](#)[Allied](#)

Triad

53 / 1500

Episode 1
Brawler

Episode 2
Criminal



Episode 3
Coming Soon



Episode 4
Coming Soon



Episode 5
Coming Soon



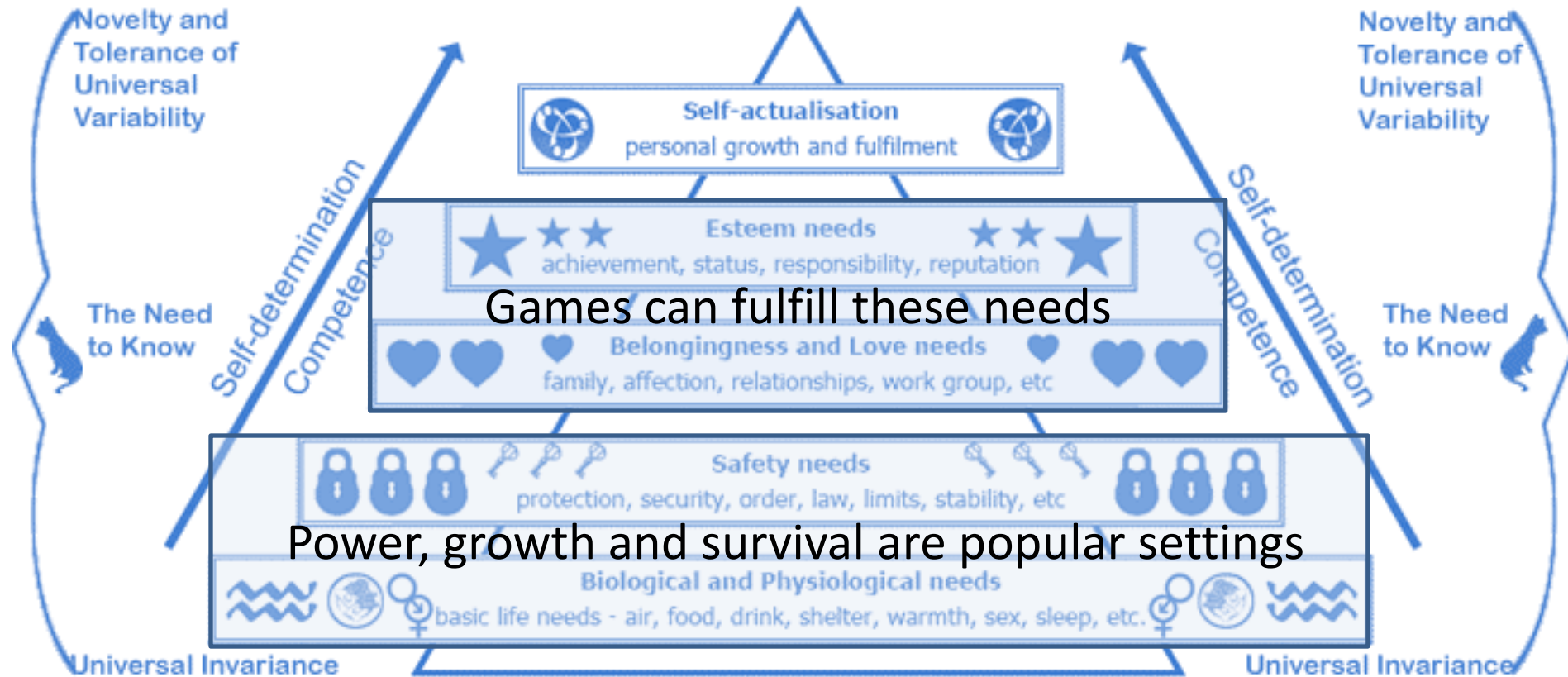
Episode 6
Coming Soon

Social network
games like
Mafia Wars



Finale

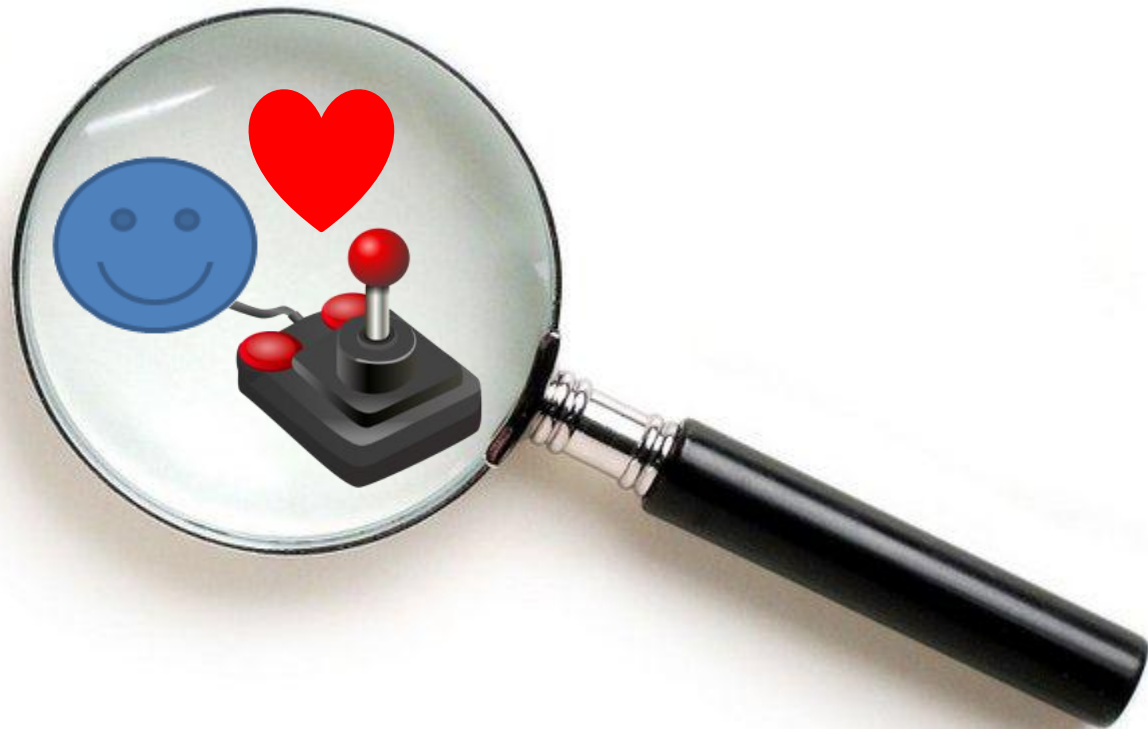
Maslow's Pyramid of Needs



All needs motivate us all the time, some stronger than others.



Research Example



Motivations of Online Games

Achievement	Social	Immersion
Advancement Progress, Power, Accumulation, Status	Socializing Casual Chat, Helping Others, Making Friends	Discovery Exploration, Lore, Finding Hidden Things
Mechanics Numbers, Optimization, Templating, Analysis	Relationship Personal, Self-Disclosure, Find and Give Support	Role-Playing Story Line, Character History, Roles, Fantasy
Competition Challenging Others, Provocation, Domination	Teamwork Collaboration, Groups, Group Achievements	Customization Appearances, Accessories, Style, Color Schemes
		Escapism Relax, Escape from RL, Avoid RL Problems

Nick Yee, 2007



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Identity

Nick Yee, 2007



Escapism



Escape from reality!





This is work!

World of Warcraft



Play theorist Brian Sutton-Smith:
"the opposite of play is not work, it is
depression."

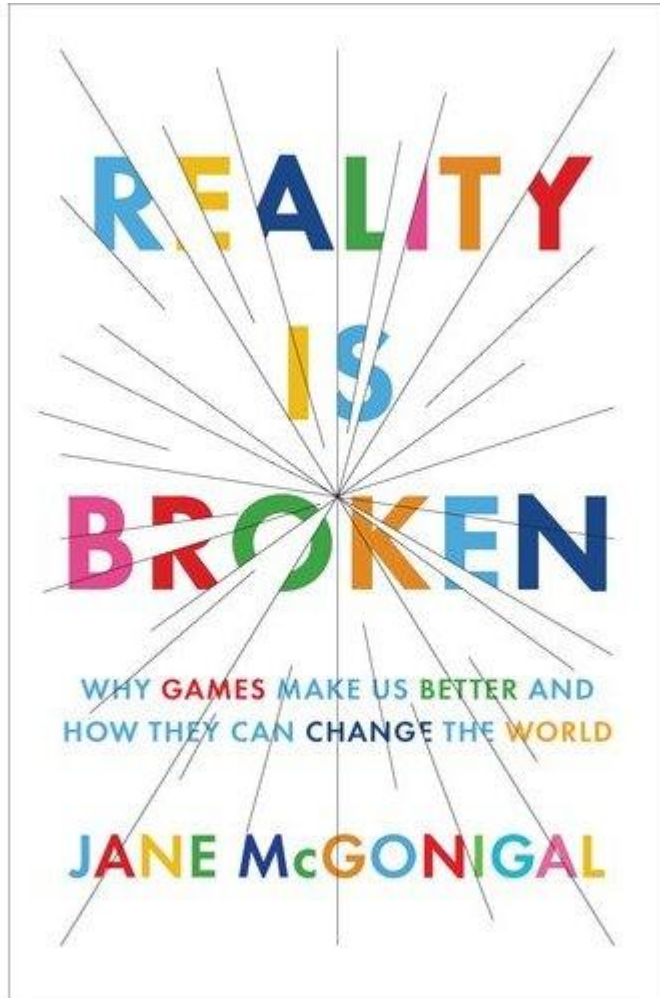




REALITY

Worst game ever.

Reality is broken



“Games make us happier, more creative, more resilient and better able us to lead others in world-changing efforts.”

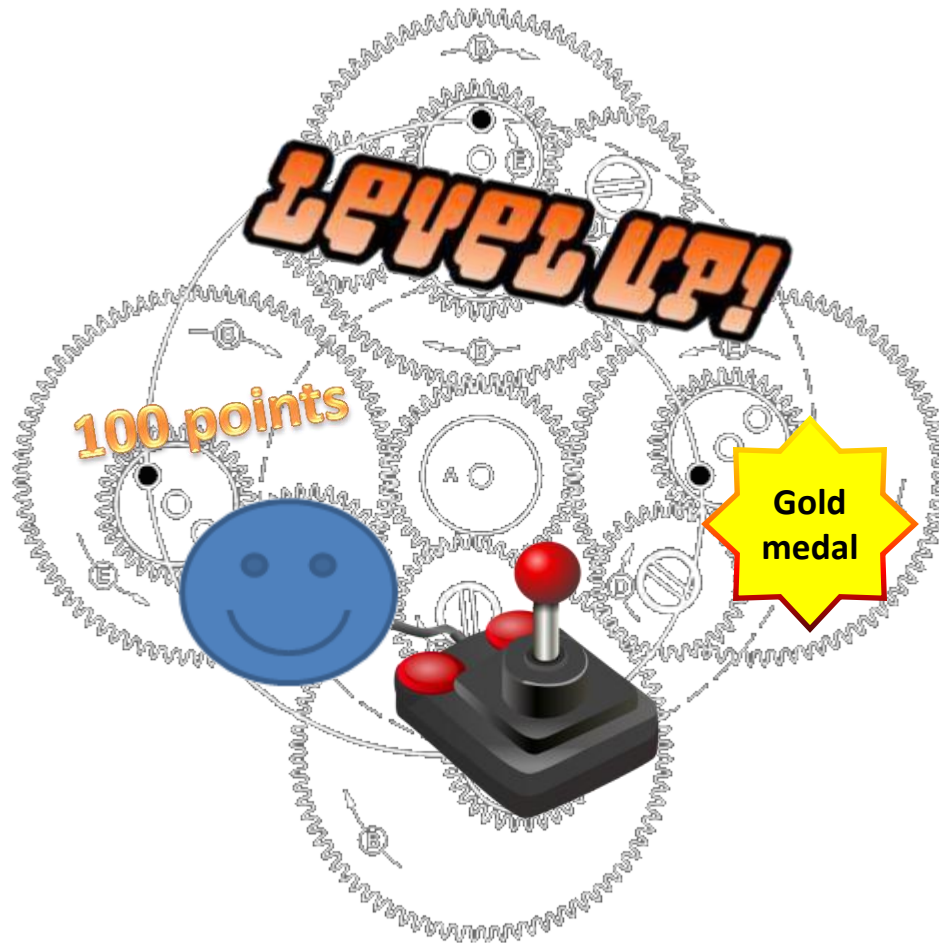




Games offer a simplified
alternate reality



Behavioral Game Mechanics



mechanics that engage people and make games entertaining



Structured Experience



fun



clear **goals**, clear **rules**, clear **feedback**

motivating
challenge

motivating
evaluation



Feedback accelerates Mastery



points are an easy way to measure skill





Combination of mechanics in the popular social network game Farmville



Fogg Behavior Model

$$B = mat$$

at the same moment

High
Motivation

motivation

pleasure/pain
hope/fear
social accept./
rejection

triggers

succeed here

facilitator,
spark, signal,
affordance,
call to action

triggers

fail here

Activation
Threshold

Low
Motivation

www.BehaviorModel.org

Hard to Do

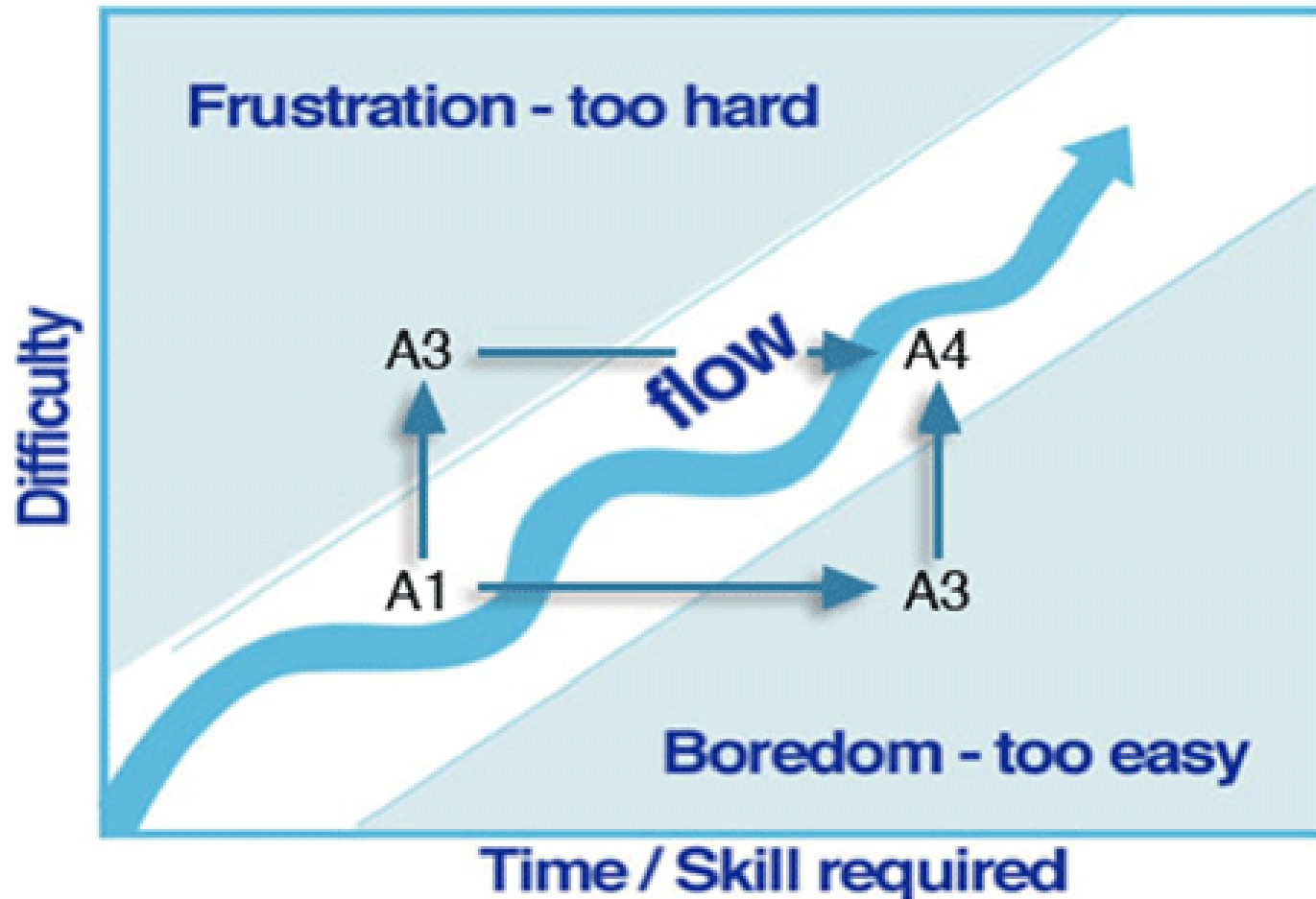
ability

Easy to Do

Simplicity Factors: time, money, physical effort,
social deviance



Games engage us in Flow



Mihaly Csikszentmihalyi, 1960s, positive psychology





LEVEL UP!

Excessive Feedback

Scaffolded Challenges

matched to the users' growing skills



Easy learning:
simple challenges
and fast milestone
rewards

More and harder
challenges, more
and different
kinds of rewards,
milestone rewards
harder to achieve

Epic ending /
endless game (new
milestones added
permanently)



Miry

6

26 m 9 m

Fargodeep Mine

N

22

5:15

Large Candle: 5/8
Inventory is full.

The Fargodeep Mine
- Scout through the Fargodeep Mine

Kobold Candles
- Large Candle: 5/8

Gold Dust Exchange
- Gold Dust: 5/10

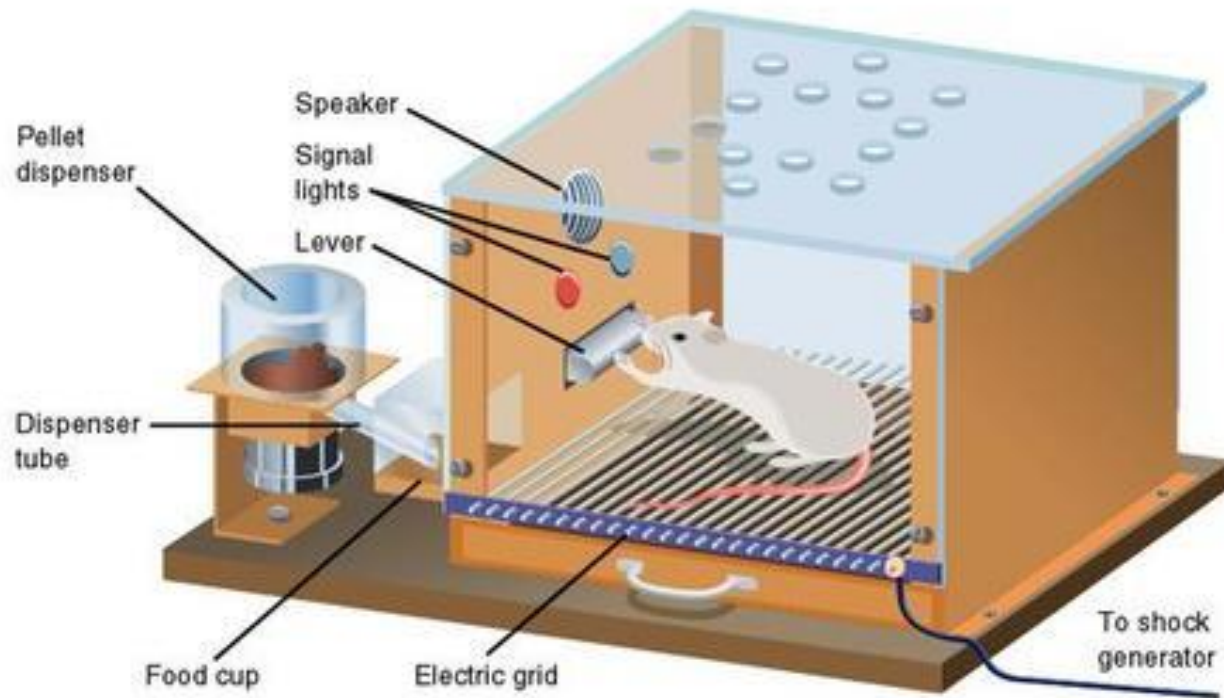


Congratulations, you have reached level 6!
You have gained 18 hit points and 23 mana.
Your Strength increases by 1.
Your Agility increases by 1.
Your Stamina increases by 1.

Meaningful rewards



Intermittent Reinforcement



Games tap into our primal response patterns





Pyro-Achievements

arsonist.png	attention_getter.png	baptism_by_fire.png	barbequeq.png	burn_ward.png	camp_fire.png	clearcutter.png
combined_fire.png	controlled_burn.png	cooking_the_boo...	dance_dance_imm...	dead_heat.png	fire_and_forget.png	fire_chief.png
firefighter.png	firewall.png	firewatch.png	freezer_burn.png	got_a_light.png	hot_on_your_heels...	hot_potato.png
hotshot.png	i_fry.png	lumberjack.png	makin' bacon.png	next_of_kindling.png	OMGWTFBBQ.png	pilot_light.png
plan_b.png	pyromancer.png	pyrotechnics.png	second_degree_bu...	spontaneous_co...	trailblazer.png	weenie_roast.png
MILESTONES:			pyro_achieve_prog...	pyro_achieve_prog...	pyro_achieve_prog...	

Collecting a set
is a powerful
mechanic

Collecting rewards



Competition and Status

Map: Dustbowl

BLU 41 15 RED

13 players 15 players

Server: LobsClen.com | 24/7 Dustbowl | West Coast

Name	Score	Ping
unb0lybac0n	165	134
Greg the Chemist	107	10
Soft-Serve	94	89
FireFryFish	93	12
NesbyD	63	8
sf wTR 澳門	22	65
Archer.J2	18	71
nikke	14	17
sproket	14	36
Phwaged	13	44
haysaku	9	122
T@NtTyO.o*o*o	3	207

Name	Score	Ping
[MEDIUM BONER] david g	339	9
Gru[n]t[is asab]	129	23
Rippin	127	58
GREMLIN	109	156
Hotel	89	50
Syx	80	20
swarder	49	175
[PI] ナイフ	44	57
FERGIE (DRUNK)	38	10
Evolution MR	34	35
Boefus	20	98
team destruction - cazzo	12	71

FireFryFish 93 points

Kills: 12 Deaths: 27 Assists: 9 Destruction: 0 Captures: 0 Defenses: 0 Domination: 1 Revenge: 1 Evades: 0 Headshots: 0 Teleports: 137 Healing: 4930 Backstabs: 0 Bombs: 0

Dustbowl Attack / Defend

Social status & hall of fame

582 4 902

Strips by type: bookmark(368) to-do(268) status update(103) log(6) meeting(3) weekly review(3) contact person(2) reminder

My Badges:



Badges available:



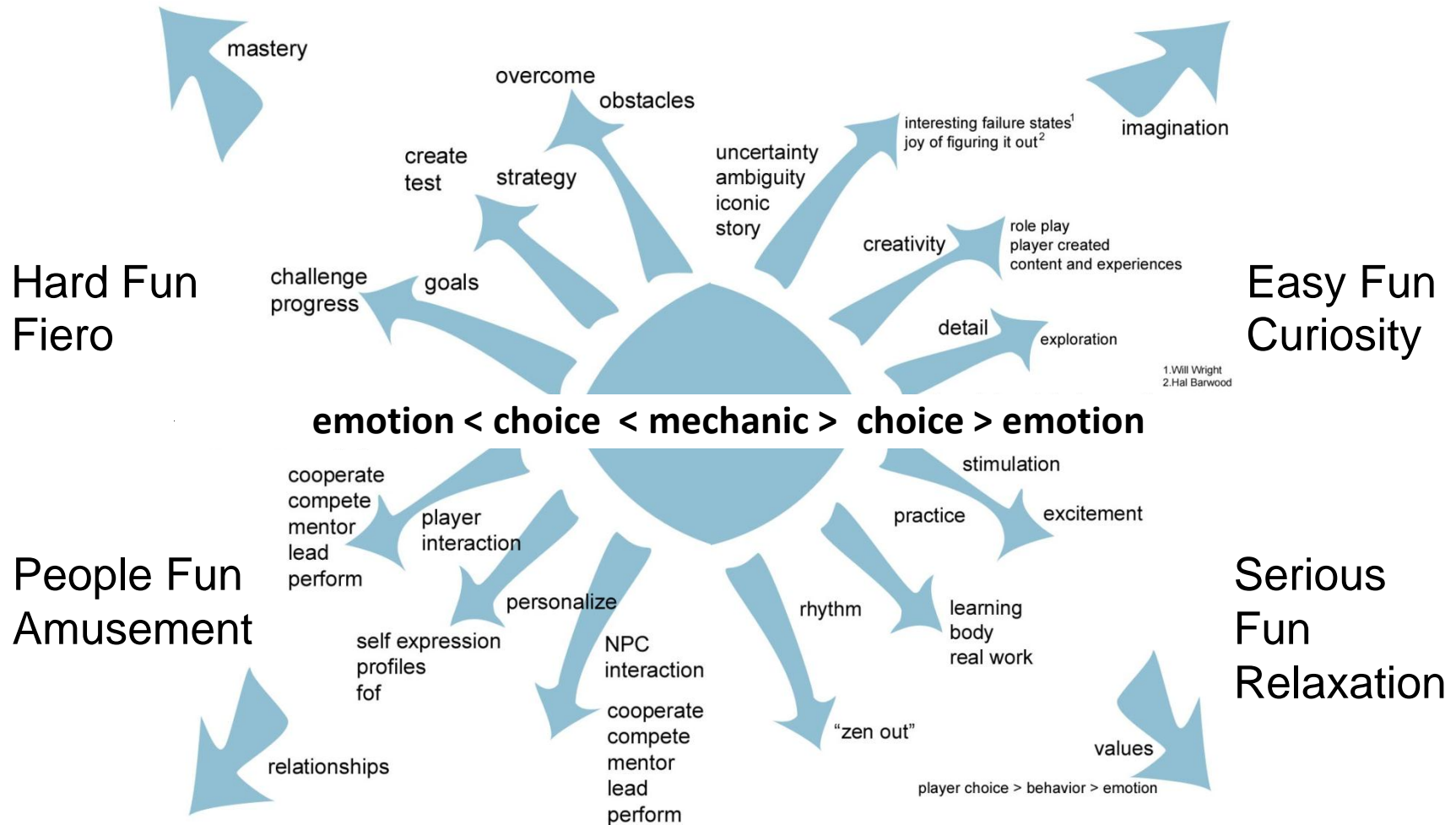
Top 10 users by rank (of 4529 total)

	name
1	csrksr
2	Nein
3	ppolsinelli

social comparison is a strong mechanic



The 4 Fun Keys



Thank you very much for your attention!

Contact

Christian Roth

roth@spieleforschung.de

