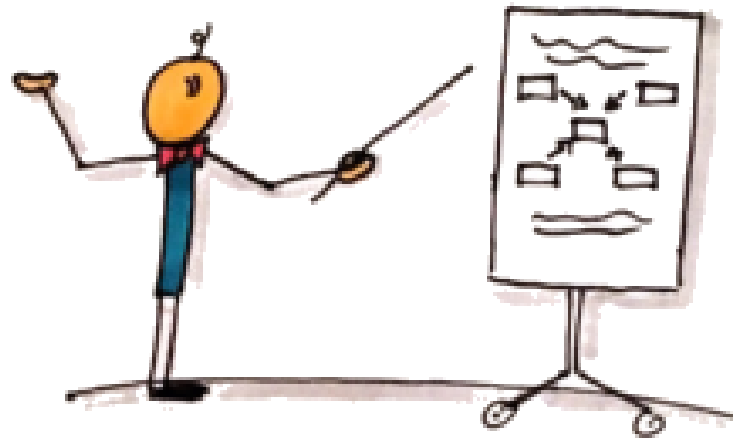


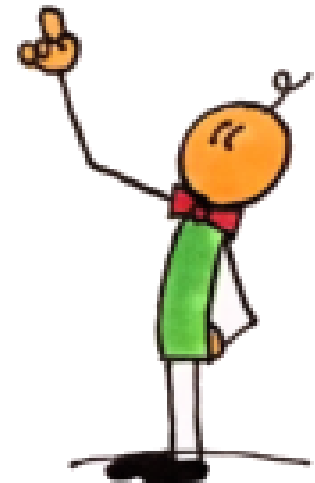
Video Games - Motives & Barriers


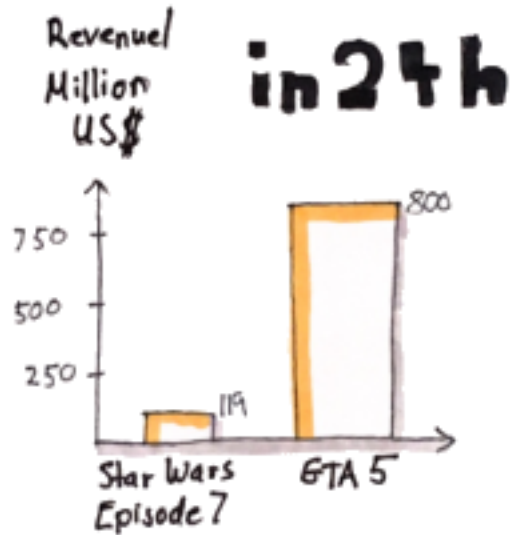
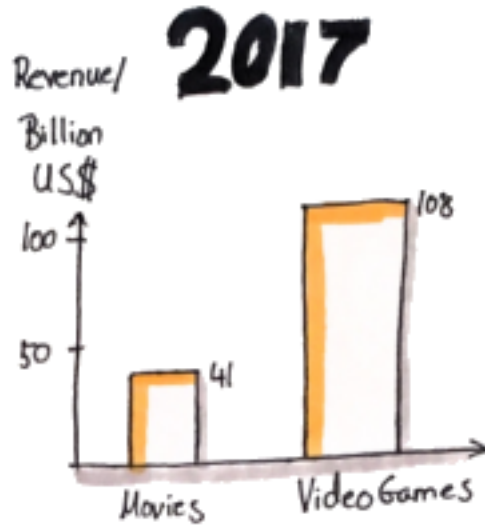


Lars Bartschat


Agenda

- Introduction
- Foundations
- Model Development
- Model Validation
- Conclusion



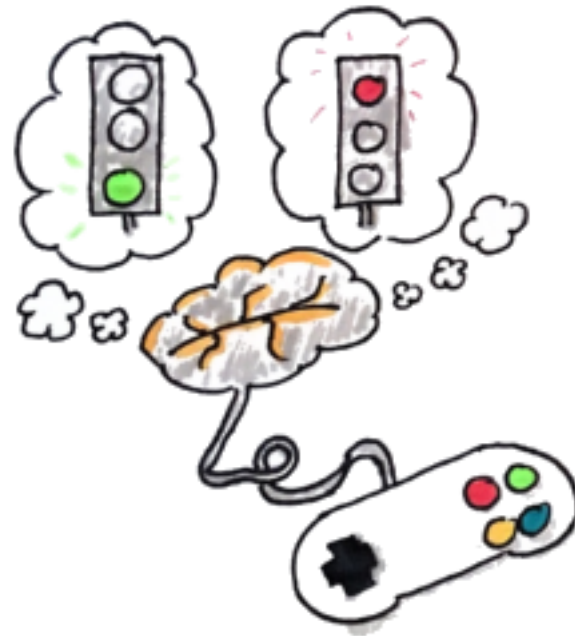


82 million Germans



34 million Gamers





Industry Foundations

1970's



1977
1983

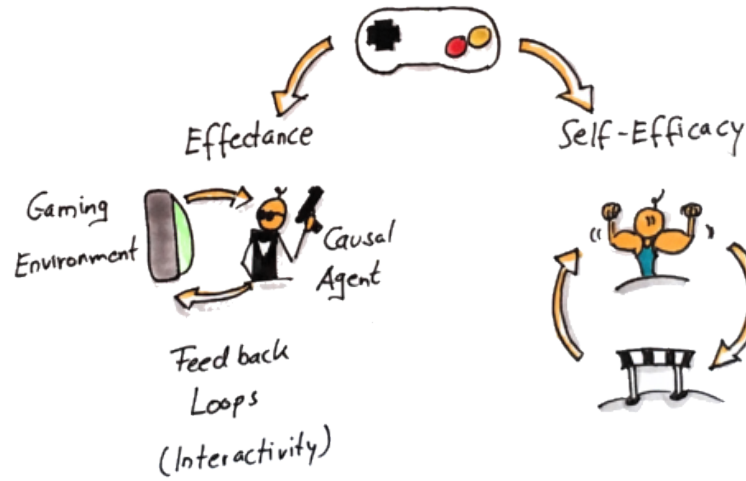
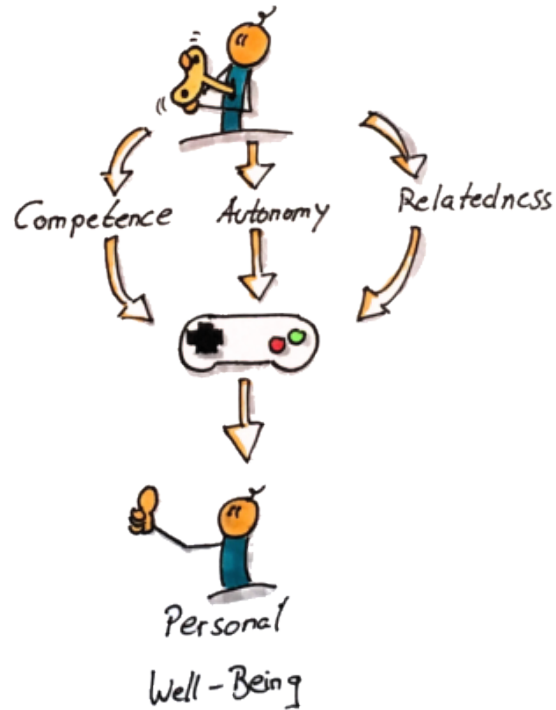


Today

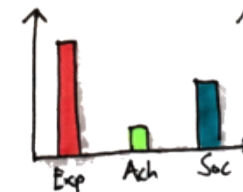


Self-Determination Theory

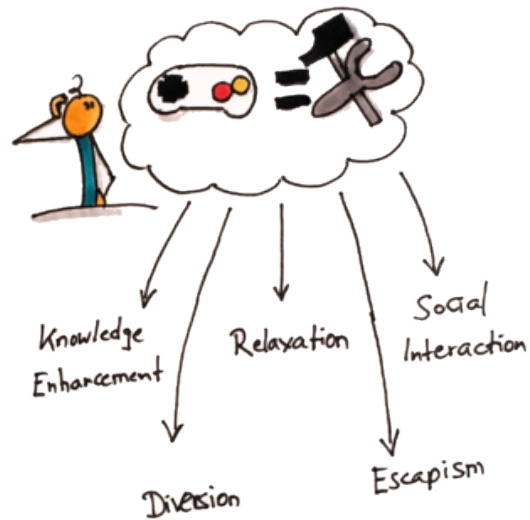
Intrinsic Motives



associated to Motives



Uses & Gratifications Theory

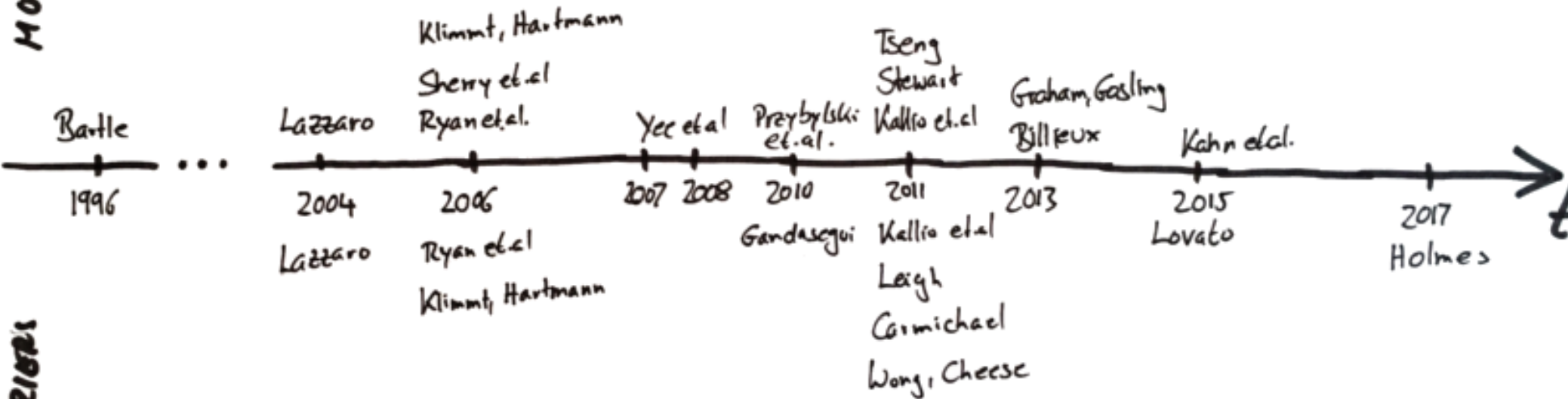


Literature Overview



MOTIVES

Barriers



Literature Synthesis



Motives

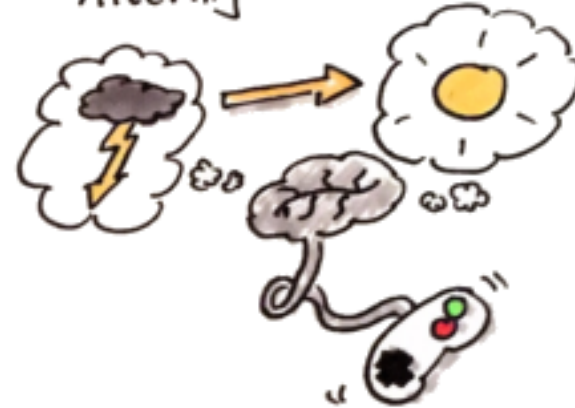
Sociability



Escapism



Altering Emotional States



Competition



Time Killing



Immersion



Achievement



Exploration



Barriers

Complexity



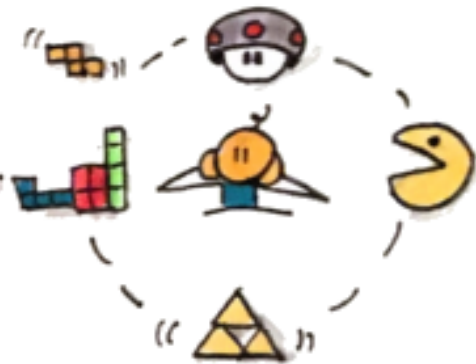
Aesthetics



Inaccessibility
of
Game Devices



Hyperchoice



Unfamiliarity



Morality



Time Constraints



Theme

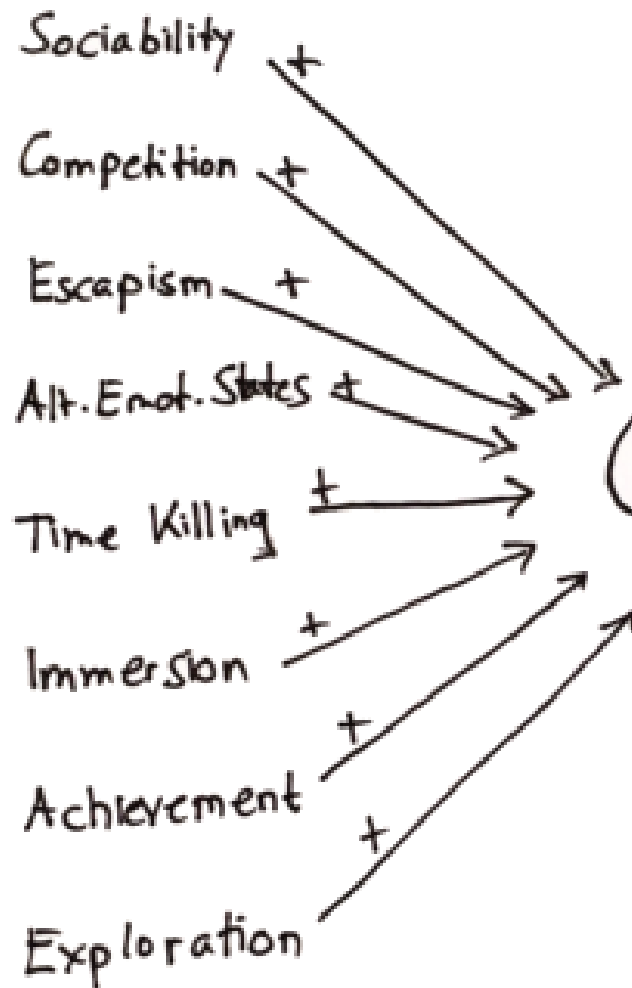


Costs

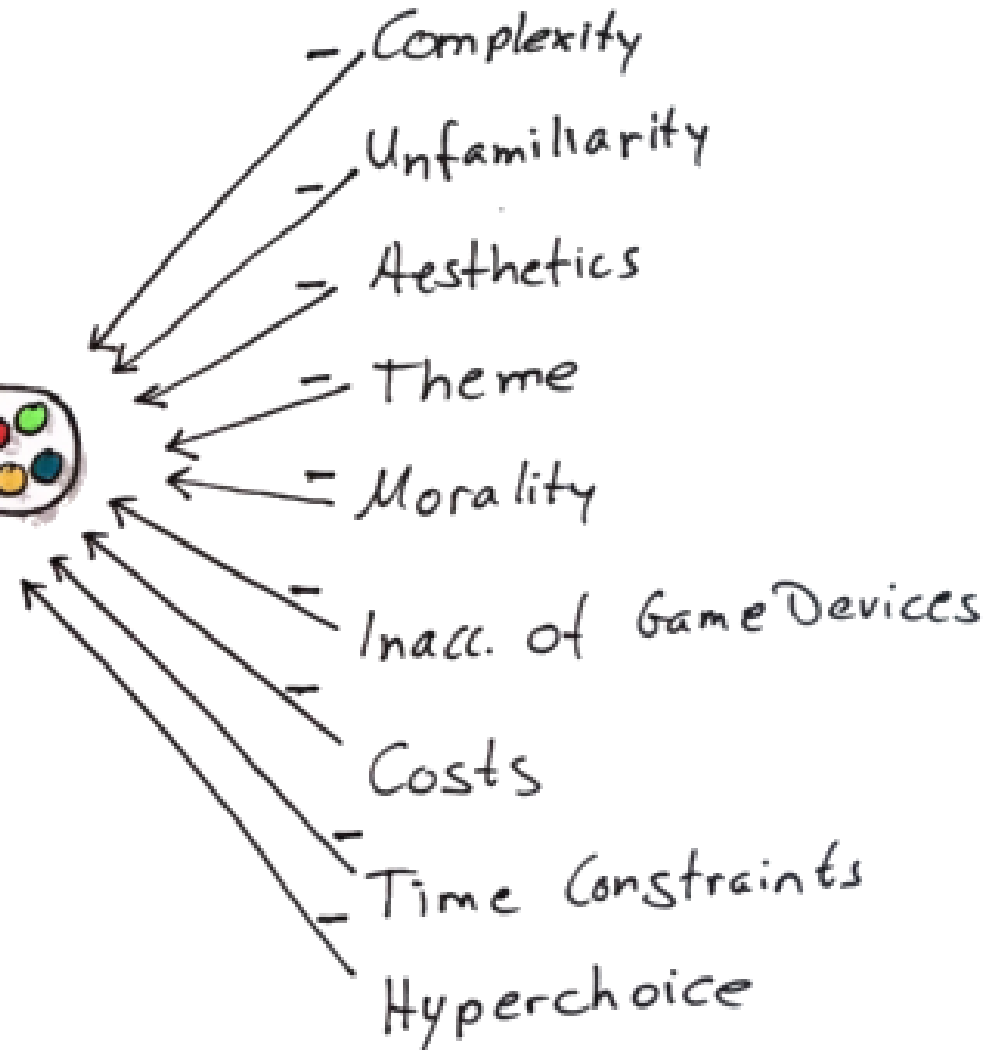


Model Overview

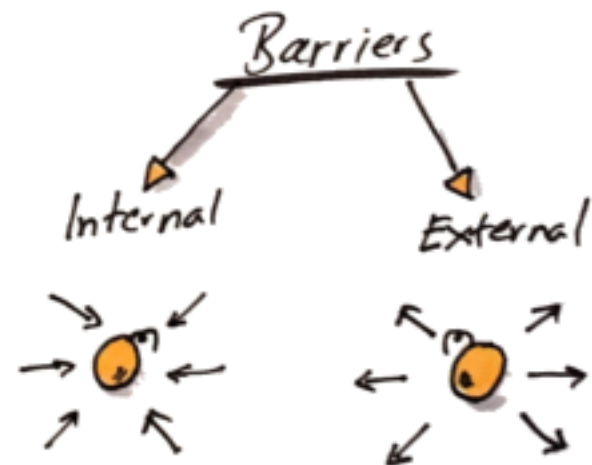
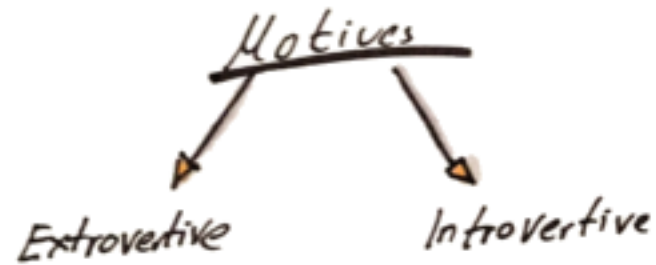
Motives



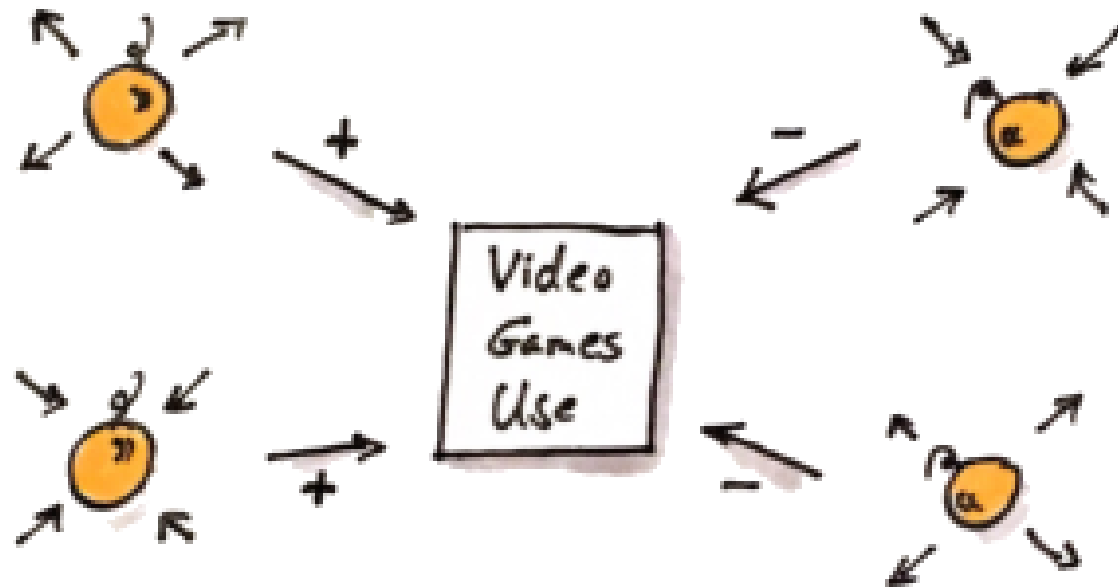
Barriers



Motives & Barriers - Direct Effects

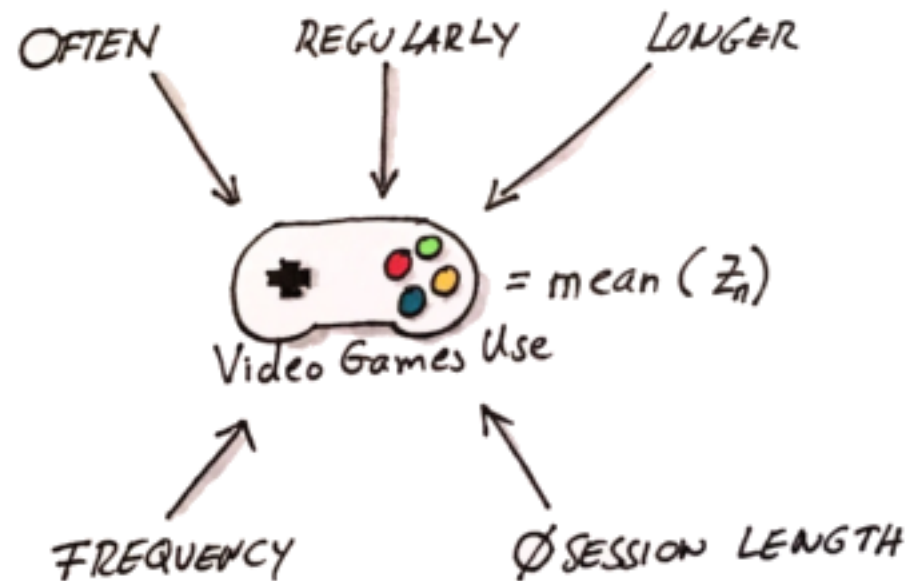


Factorized Model



Research Methodology

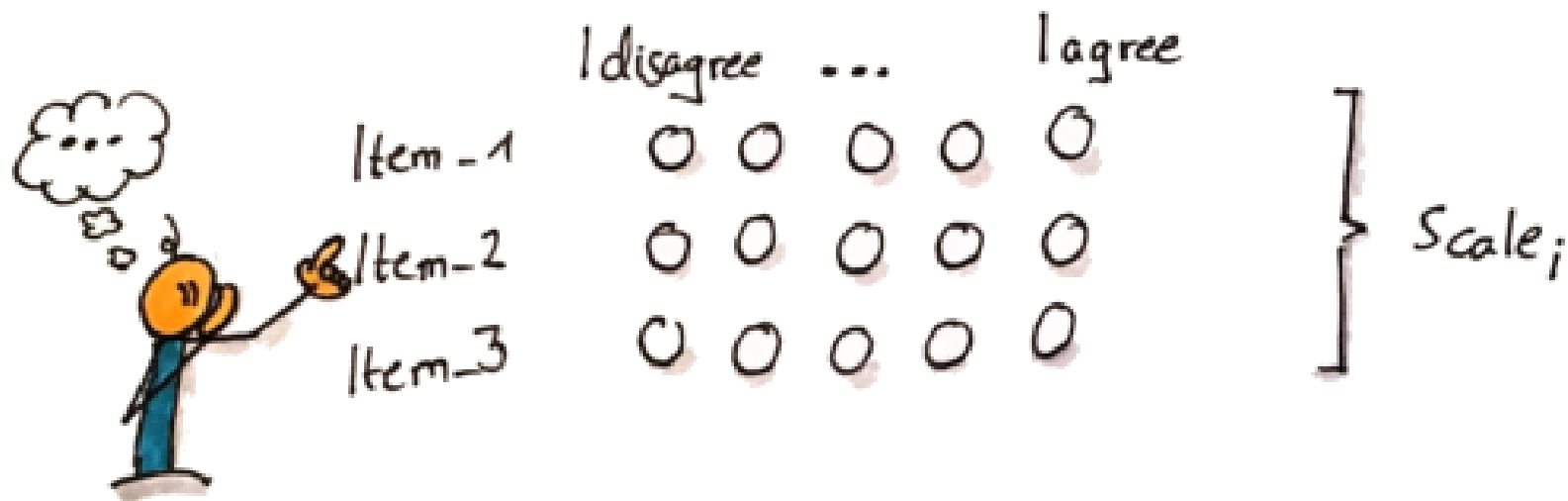
Measuring the Dependent Variable



Z-scores:

$$Z_i = \frac{X_i - \bar{X}}{s}$$

Measuring the Independent Variables



$$\text{Score}(\text{Scale}_i) = \text{mean}(\text{Item}_{1..3})$$

Unipark.de

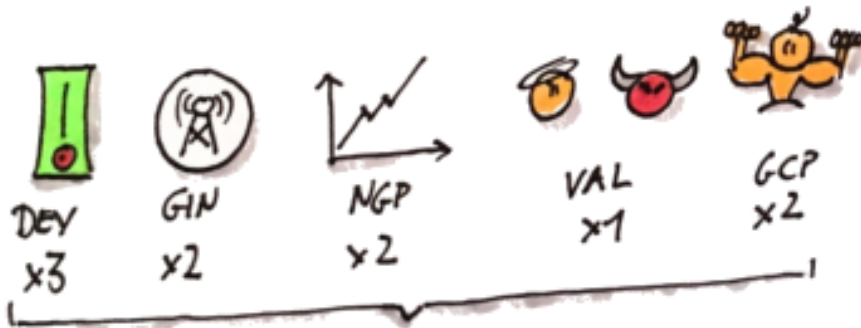


Sample Description

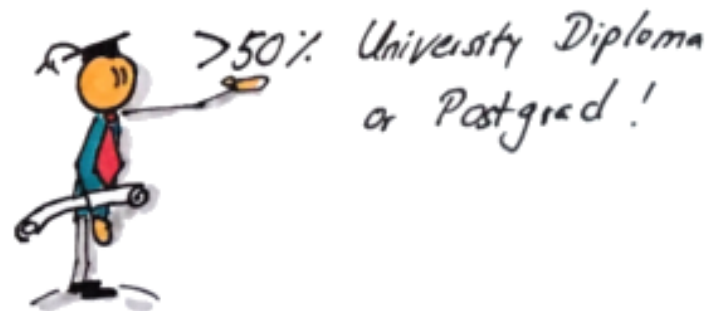


74% 26%
♂ ♀

Determine the Gamer Type:



$\frac{\Sigma}{10} = \text{CORENESS}$
 ↙ ↘
 <2.5 >2.5
 CASUAL CORE



Results

Reliability & Unidimensionality of Scales

Reliability



⇒ Cronbach's α

Video Game Usage $\alpha = 0.890$ ✓

Independent Variables $\alpha > 0.700$ ✓

Coreness Scale $\alpha = 0.884$ ✓

Unidimensionality



⇒ Principal Component Analysis

Kaiser Criterion Eigenvalue > 1





Assumptions

- ☒ Linear
- ☒ Additive

Regression Equation:

$$Usage_i = \beta_0 + \beta_1 \times Soc. + \beta_2 \times Comp. + \dots + \epsilon_i$$



Model Testing - Model 1

	β	β	tstat.	p	VIF
Intercept	-1.123		-6.020	0.000	
Competition	0.073	0.110	2.242	0.026	2.152
Alt. Emot. St.	0.088	0.120	2.095	0.037	2.917
Time Killing	0.121	0.167	3.552	0.000	1.958
Immersion	0.084	0.133	2.379	0.018	2.755
Exploration	0.170	0.245	4.393	0.000	2.772
Unfamiliarity	-0.170	-0.190	-3.270	0.001	2.978
Time Const.	-0.121	-0.180	-5.030	0.000	1.138

all VIF ≤ 3 ✓
no multicollinearity

R^2	0.714
R^2 (adj.)	0.694
F-stat.	35.227
Prob.(F-stat)	0.000

only $p < 0.05$ shown

Durbin-Watson 2.065

→ independency of errors ✓

DV = Video Game Use
N = 273



Model Testing - Model 2 (factorized)

	β	β	t-stat.	p	VIF
Intercept	-0.174		-2.830	0.005	
Intrav. Motives	0.560	0.672	18.816	0.000	1.055
Extrav. Motives	0.212	0.254	7.219	0.000	1.023
Intern. Barriers	-0.200	-0.240	-6.430	0.000	1.148
Extern. Barriers	-0.115	-0.138	-3.932	0.045	1.015
Gender	0.236	0.124	3.206	0.002	1.241

Adequacy of Sample?



KMO = 0.807 ☒

How many?



Parallel Analysis



4 ☒

PCA

Component	Construct
1	Intrav. Motives
2	Intern. Barriers
3	Extrav. Motives
4	Extern. Barriers

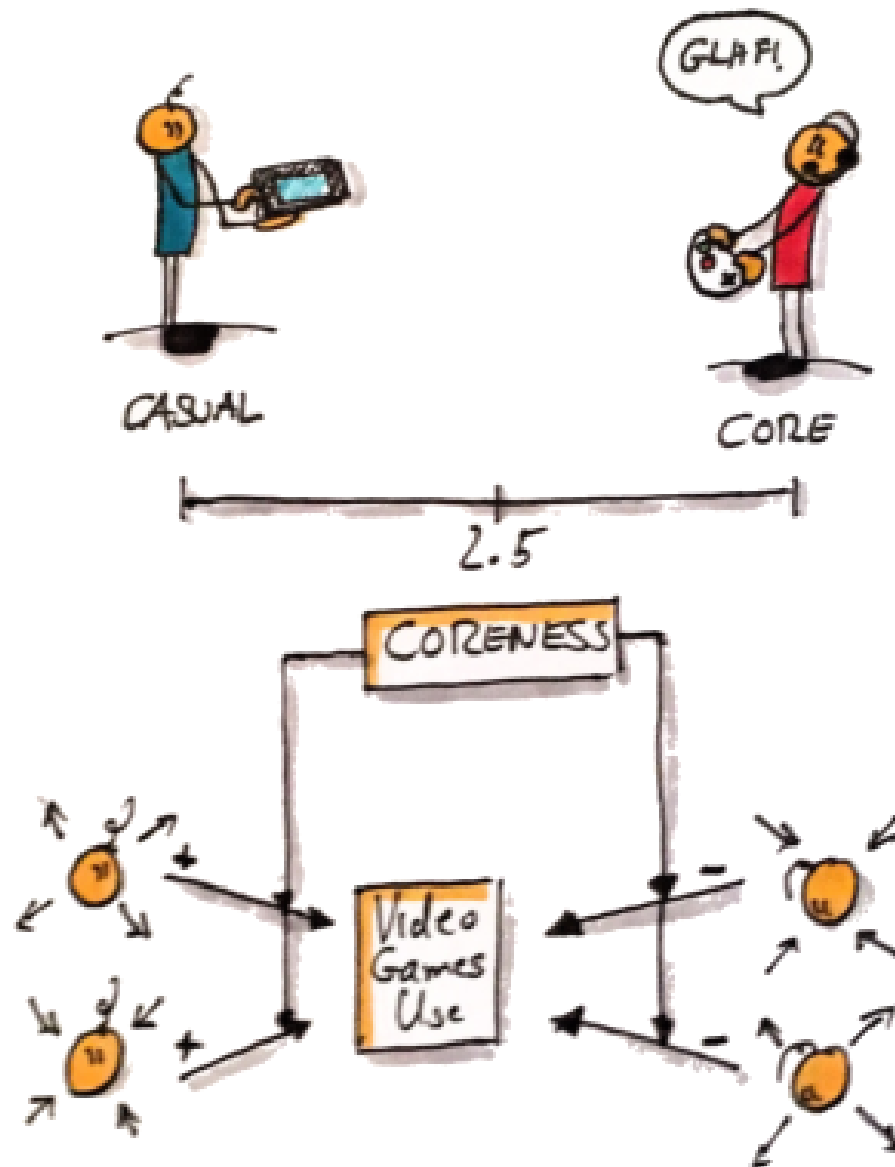


☒ R^2 0.677
☒ R^2 (adj.) 0.671
☒ F-stat. 111.761
☒ Prob. (CF-stat.) 0.000
☒ Durbin-Watson 1.807
 DV = Video Games Use
 N = 273



Regression Analysis
(With factor scores)

Post-Hoc Analysis - Game Type as Moderator?



Model Testing - Model 3



	B	β	tstat.	p	VIF
Intercept	0.007		0.098	0.922	
Intrav. Motives	0.373	0.447	9.601	0.000	2.026
Extrav. Motives	0.124	0.149	4.030	0.000	1.348
Int. Barriers	-0.121	0.145	-3.465	0.000	1.763
Ext. Barriers	-0.085	0.102	-2.736	0.001	1.291
Coreness	0.298	0.357	6.477	0.000	2.584
1A Coren. x Intrav. Mot.	-0.087	0.099	-2.769	0.006	1.195
1A Coren. x Extrav. Mot.	-0.015	0.018	-0.532	0.595	1.128
1A Coren. x Int. Barr.	-0.022	0.026	-0.722	0.471	1.283
1A Coren. x Ext. Barr.	-0.036	0.044	-1.268	0.206	1.217
Gender	0.044	0.023	0.551	0.551	1.217

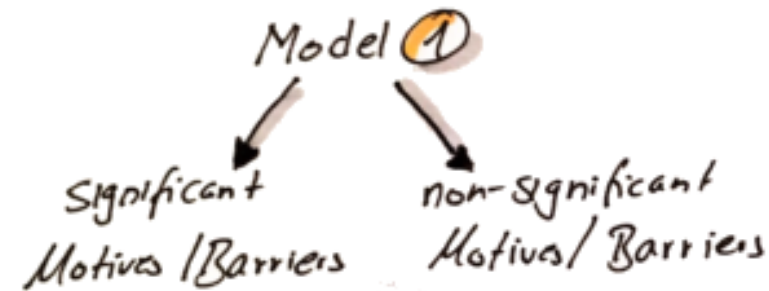
R^2	0.734
R^2 (adj)	0.724
F-Stat.	72.268
Prob (F-Stat.)	0.000
Durbin-Watson	1.962
DV: Video Games Use	
N = 273	

< 3 ✓
VIF

Sign.

non-sig.

Discussion of Results



Model ③

- Core vs Casual
- Interaction → only one
- Coreness (effect size)

→ Main Drivers for Video Gaming

- Exploration
- Time Killing
- Immersion
- Altering Emotional States
- Competition

Main Obstacles

- Unfamiliarity
- Time Constraints

Sample Composition



♀
24%

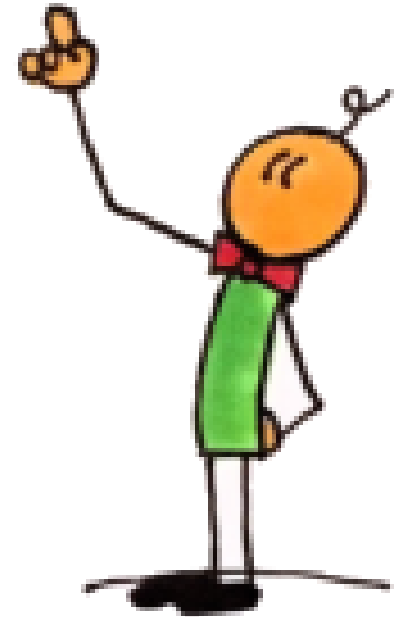


♂
76%

Implications

Limitations

Future Research





<https://github.com/bartschat>



- Thesis incl. all references
- Presentation



Contact: bartschat@mailbox.org



DISCUSSION