
MINECRAFT
Start the Presentation
Options.
Quit
11.02.2024

Our Team

Franziska Paulini

Lusil Ramaliu

Julia Ungefug

Erkaiym Uselmann

AGENDA

1. Problem/Motivation
2. Research Question
3. Theoretical Background
4. Study Design
5. Survey
6. Results
7. Discussion
8. Theoretical and Practical Contribution
9. Reflection
10. Contribution

Reasons for choosing Minecraft:

- Accessibility and Popularity
- Long Existence with Continous Updates
- Creative Freedom
- Modding and Customization Options
- Interactive and Social Elements
- Low Technical Barrier

Loading.....


Problem/Motivation
Is the metaverse a relevant space for content creators?

Research Question

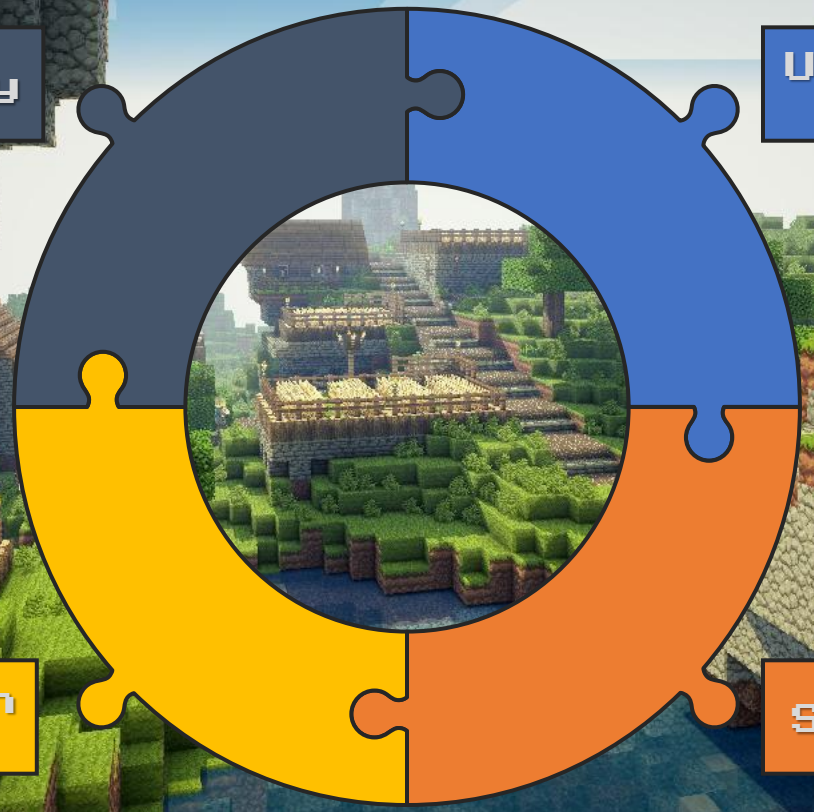
What motivates creators of the Metaverse?

A study on the effects of intrinsic need, satisfaction and external incentives

Theoretical Background

Social Capital Theory

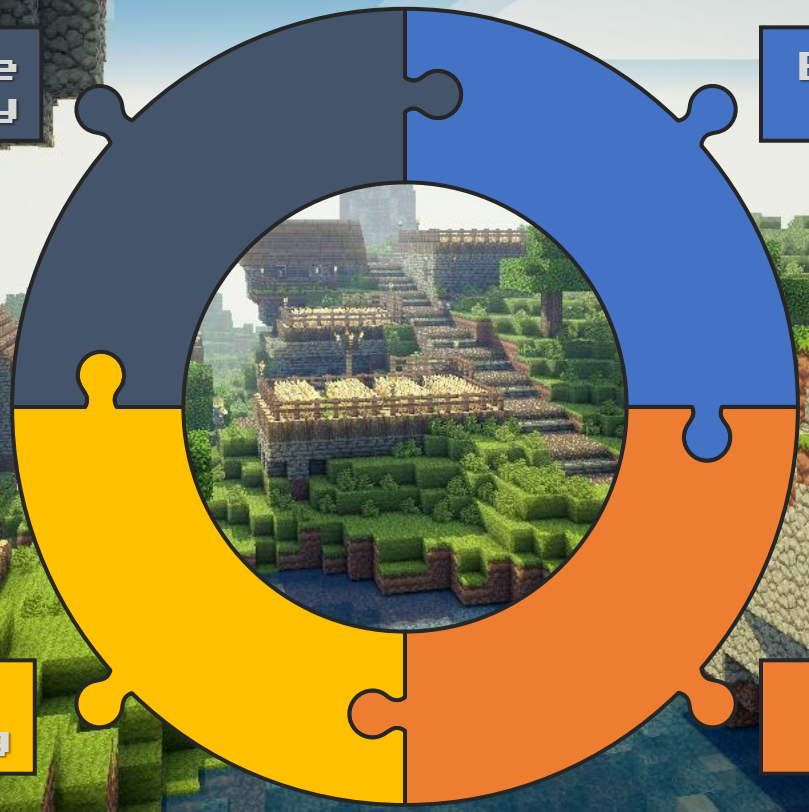
Uses and Gratifications Theory



Self-Determination Theory

Social Identity Theory

Theoretical Background



The Rise of the Creator Economy

Ethical Considerations and Challenges

Audience Engagement and Community Building

The Future of Content Creation

Study Design

Study Type and Purpose

- Study Type: quantitative and descriptive
- Focus: Motivation of content creators on the Metaverse
- Participants: Minecraft content creators

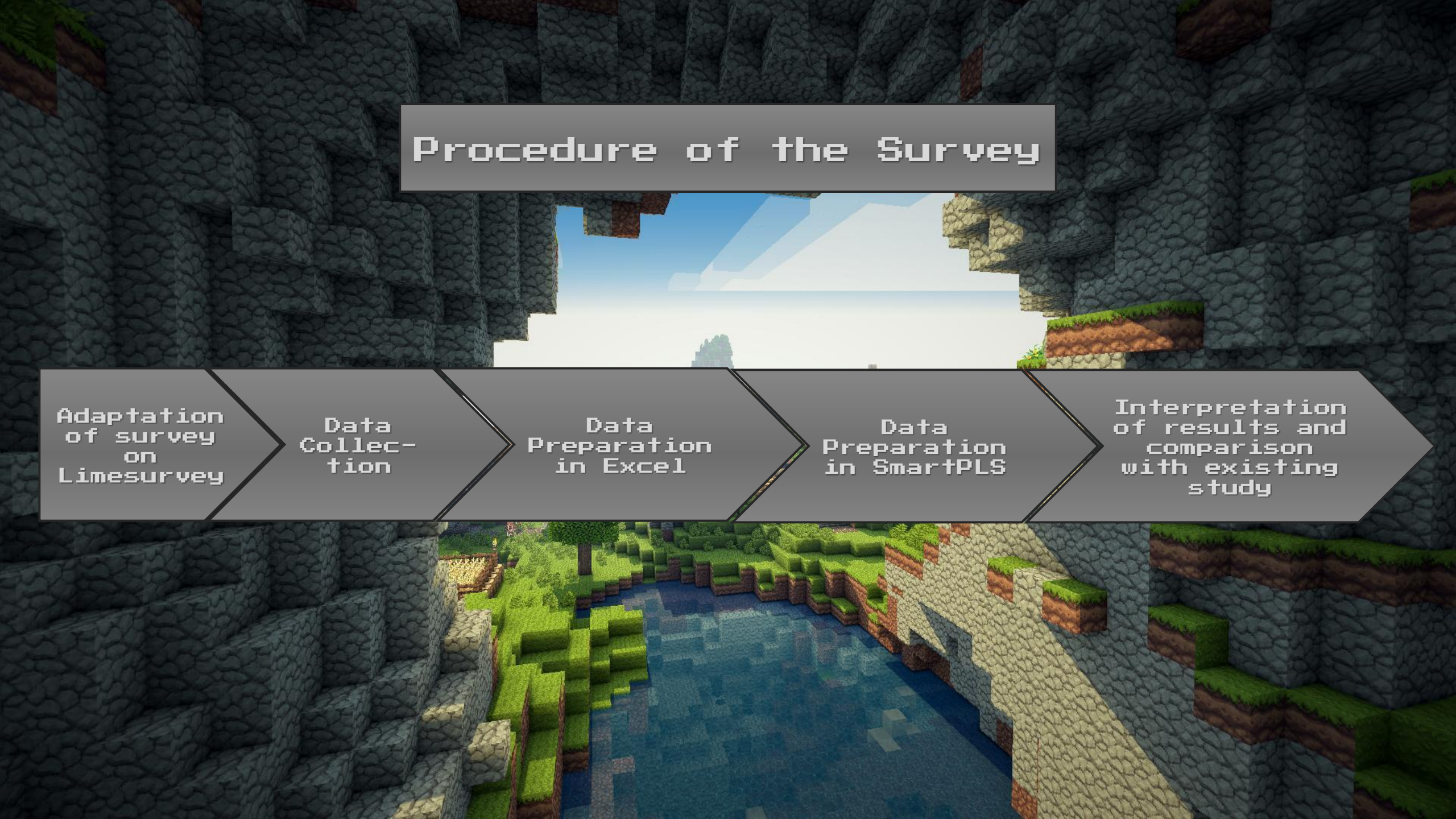
Survey Structure

- Duration: 68 items - approximately 10-15 minutes
- Topics covered: Personal content creation habits, Motivational constructs, Demographic information
- Measurement Tools: Likert scale (1-5) was used for most questions

Statistical Tools and Analysis

- SmartPLS used for path-based partial least sqaures structural equation modeling
- Metrics for reliability and validity included Cronbach's alpha, composite reliability, and average variance extracted

Procedure of the Survey



Adaptation of the Survey on Limesurvey

Purpose

- Tailor the survey to Minecraft's unique creator community
- Add questions to clarify what qualifies a "content creator" in Minecraft

Key Changes

- Platform-Specific Updates
- Replaced references to Roblox with Minecraft

Content-Specific

- Adjusted content types to reflect Minecraft's features
- Constructions & Technical Constructions (e.g., buildings, cities)
- Mods, plugins, texture packs, or skins

Data Collection

Discord reddit twitch

E-Mail to WiSo students
via mailing list + poster

How many answers we got?

Completed totally: 122

Completed partially: 168

Total answers: 290

Problems

Trust issues with the survey link

Trust issues with our profiles

Large scope of survey & „repeated questions"

Data Preparation in Excel

Data Cleaning

- Syntax Accuracy (Spelling of countries and text answers)
- Removing non-serious answers

Selection of relevant columns and lines

- Non relevant Columns:
  1) Date and time of survey answering
  2) Time to fill out
  3) Last time of content creation
- Deleted Instances:
  1) Age <16 (n = 5)
  2) Non Content Creator (n = 111)
     - Don't share any content with others
     - Didn't answer that questions (Randomization)

→ 168 left

Data Preparation in SmartPLS

Selection of Columns/Attributes

1) Adding helping behavior
2) Dividing income into income and actual income
3) Missing values: marked as N/A
4) Leaving out country, age, gender → not part of model
5) Formative variables
6) Specifying data types:
    - Data type: Likert scale questions (ordinal), income and age (metric/numeric), gender (categorical)
    - Minimum and maximum specified
7) Resulting Structual equation model

Overall Motivation - Hypotheses

H1: Overall internal motivation examined in this research are positively associated with average time invested weekly for Minecraft.

H2: Overall internal motivation examined in this research are positively associated with intention to continue to create content for Minecraft.

H3: Overall internal motivation examined in this research are positively associated with word of mouth.

H4: Overall external motivation examined in this research are positively associated with average time invested weekly for Minecraft.

H5: Overall external motivation examined in this research are positively associated with intention to continue to create content for Minecraft.

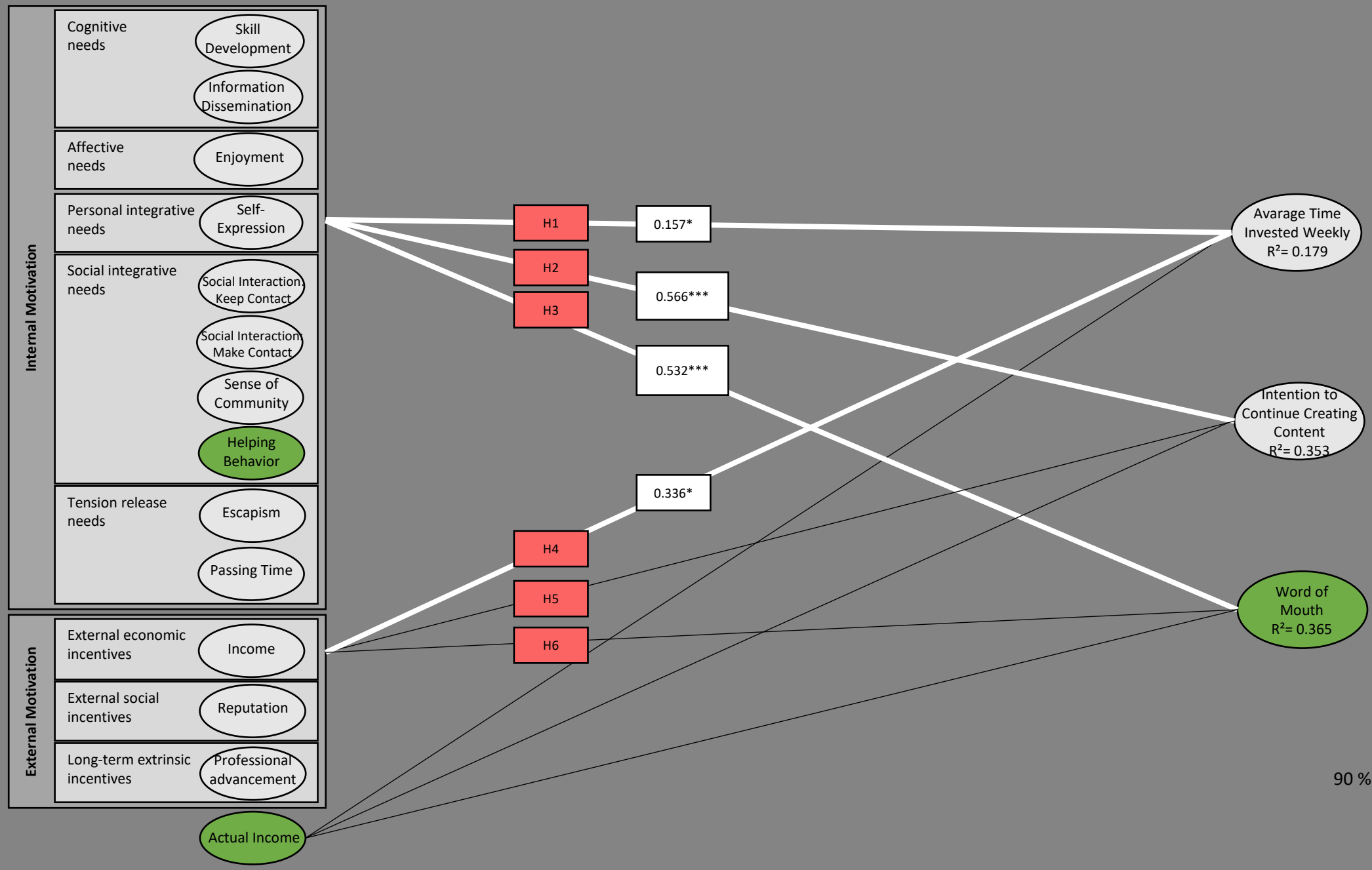
H6: Overall internal motivation examined in this research are positively associated with word of mouth

Overall Motivation - Hypotheses

H1, H2, H3: Internal motivation significantly influence time invested, intention to continue, and word of mouth ($p < 0.10$)
NOT REJECTED

H4: External motivation significantly influence time invested ($p < 0.10$)
NOT REJECTED

H5, H6: External motivation do not significantly influence intention to continue or word of mouth ($p > 0.10$)
REJECTED


Internal Motivation
Cognitive needs
Skill Development
Information Dissemination
Affective needs
Enjoyment
Personal integrative needs
Self-Expression
Social integrative needs
Social Interaction: Keep Contact
Social Interaction: Make Contact
Sense of Community
Helping Behavior
Tension release needs
Escapism
Passing Time
External Motivation
External economic incentives
Income
External social incentives
Reputation
Long-term extrinsic incentives
Professional advancement
Actual Income
H1
H2
H3
H4
H5
H6
0.157*
0.566***
0.532***
0.336*
Avarage Time Invested Weekly
R²= 0.179
Intention to Continue Creating Content
R²= 0.353
Word of Mouth
R²= 0.365
90 % Significance Level
' = p < 0.100
* = p < 0.050
** = p < 0.010
*** = p < 0.001

Data Analysis in SmartPLS

Validity and Reliability Overall Motivation:

- Cronbach's Alpha
- Composite reliability
- Average variance extracted (AVE)

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
External Motivation	0.917	0.920	0.550
Internal Motivation	0.946	0.951	0.346
Intention to Continue Creating Content	0.829	0.851	0.747
Word of Mouth	0.756	0.760	0.672

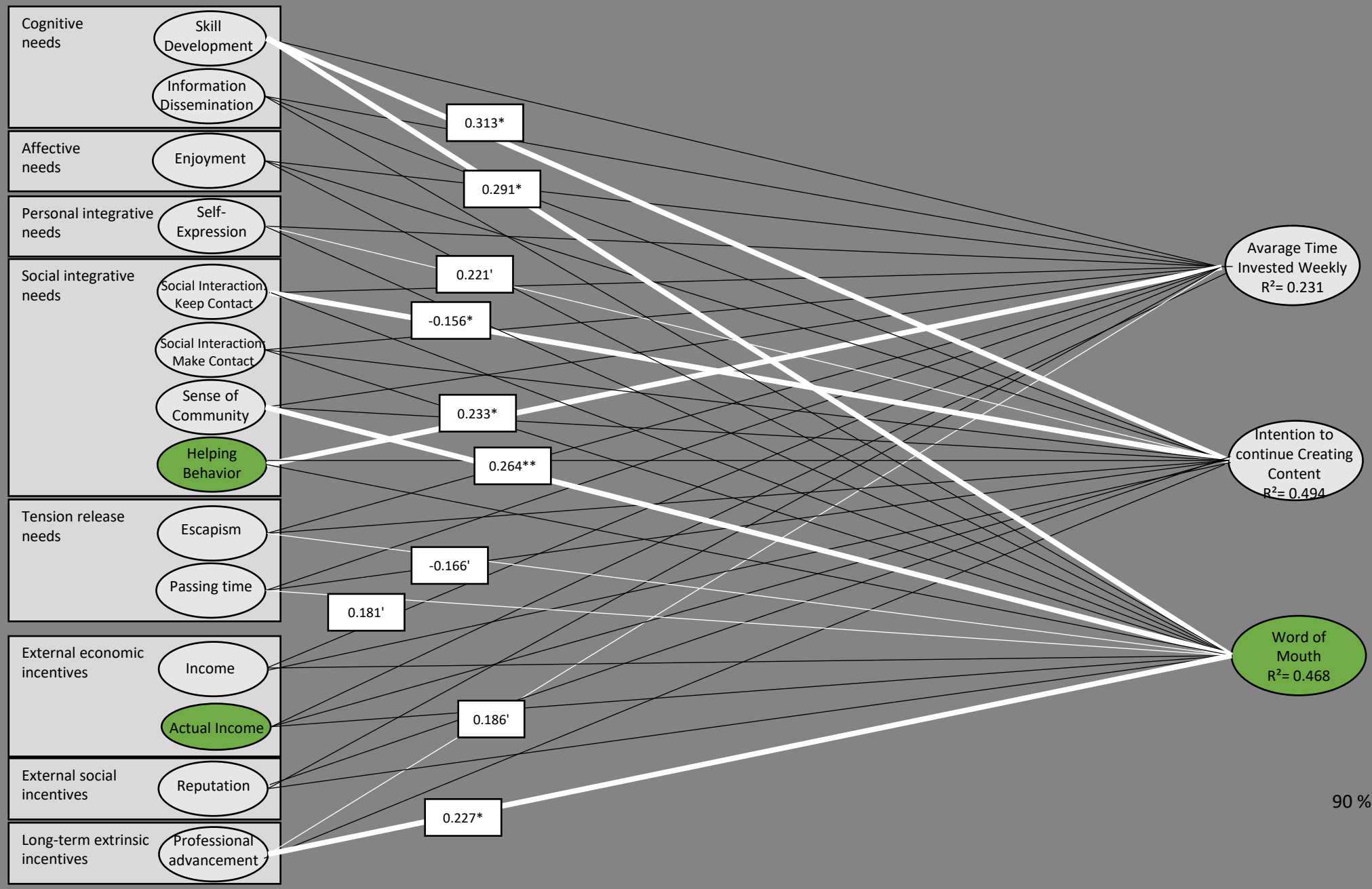
- Fornell-Larcker criterion: **not** fulfilled for **internal motivation**
- Heterotrait-monotrait (HTMT): discriminant validity

Data Analysis in SmartPLS

- Internal motivation significantly boost content creation and word of mouth.
- External motivation mainly increase time invested but have no effect on continuance or word of mouth.

	Average Time Invested Weekly			Intention to Continue Creating Content			Word of Mouth		
	R2 = 0.179			R2 = 0.354			R2 = 0.365		
	β	p	Confidence interval	β	p	Confidence interval	β	p	Confidence interval
Internal Motivation	0.157*	0.037	0.055 - 0.299	0.566***	0.000	0.441 - 0.706	0.532***	0.000	0.381 - 0.684
External Motivation	0.336**	0.002	0.139 - 0.490	0.064	0.484	-0.093 - 0.207	0.113	0.237	-0.043 - 0.271

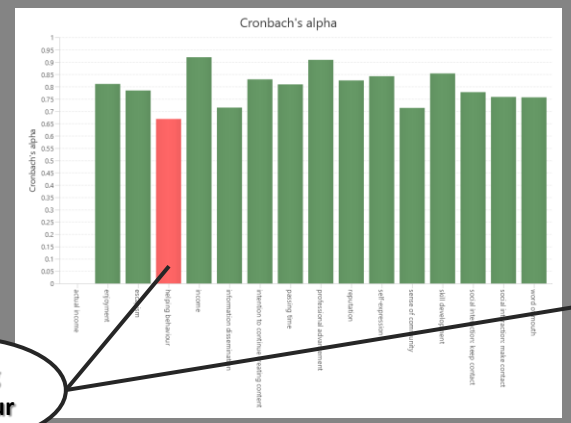
90 % Significance Level
‘ = p < 0.100
* = p < 0.050
** = p < 0.010
*** = p < 0.001

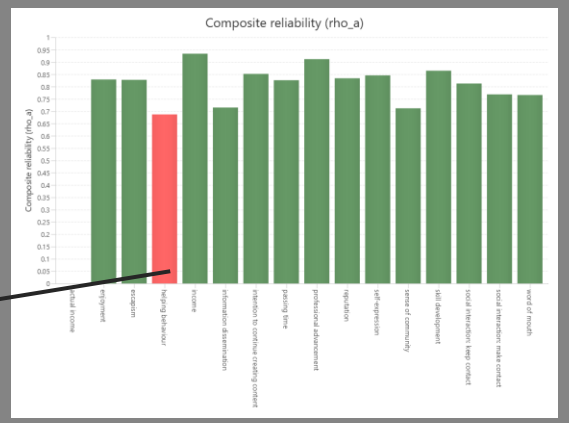

Cognitive needs
Skill Development
Information Dissemination
Affective needs
Enjoyment
Personal integrative needs
Self-Expression
Social integrative needs
Social Interaction Keep Contact
Social Interaction Make Contact
Sense of Community
Helping Behavior
Tension release needs
Escapism
Passing time
External economic incentives
Income
Actual Income
External social incentives
Reputation
Long-term extrinsic incentives
Professional advancement
0.313*
0.291*
0.221'
-0.156*
0.233*
0.264**
-0.166'
0.181'
0.186'
0.227*
Avarage Time Invested Weekly
R²= 0.231
Intention to continue Creating Content
R²= 0.494
Word of Mouth
R²= 0.468
90 % Significance Level
' = p < 0.100
* = p < 0.050
** = p < 0.010
*** = p < 0.001

Data Analysis in SmartPLS

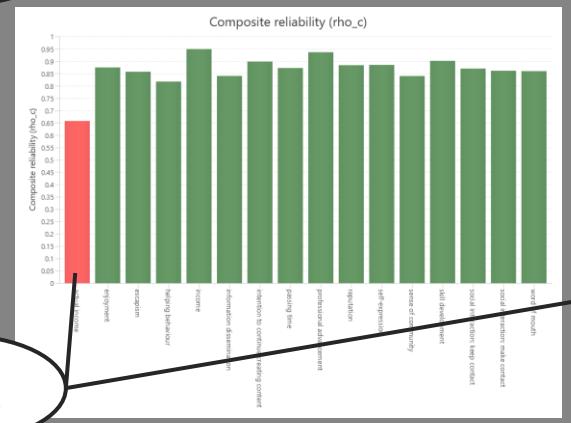
Validity and Reliability Specific Motivations:

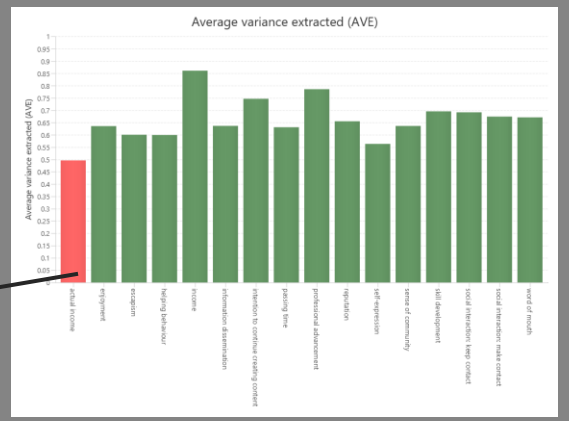
- Cronbach's Alpha
- Composite reliability
- Average variance extracted (AVE)
- Fornell-Larcker criterion:
  - discriminant validity





Helping behaviour





Actual income

Data Analysis in SmartPLS

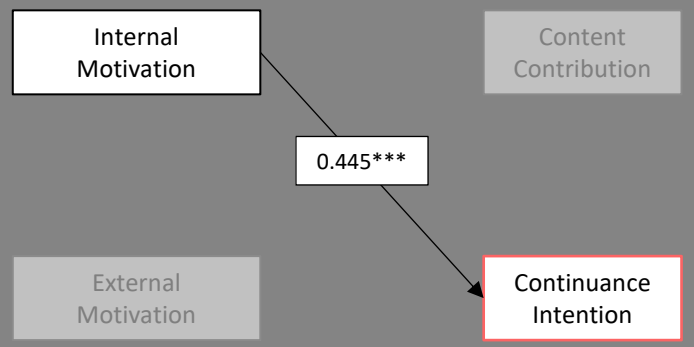
	Average Time Invested Weekly			Intention to Continue Creating Content			Word of Mouth		
	R2 = 0.231			R2 = 0.494			R2 = 0.468		
	β	p	Confidence interval	β	p	Confidence interval	β	p	Confidence interval
1. Skill Development	0.104	0.485	-0.138 - 0.349	0.313*	0.009	0.101 - 0.502	0.291*	0.014	0.082 - 0.470
2. Information Dissemination	-0.161	0.426	-0.442 - 0.215	-0.082	0.429	-0.243 - 0.095	-0.109	0.313	-0.289 - 0.063
3. Enjoyment	0.127	0.359	-0.111 - 0.341	0.146	0.179	-0.020 - 0.341	-0.014	0.901	-0.182 - 0.177
4. Self Expression	0.036	0.850	-0.251 - 0.362	0.221'	0.090	-0.011 - 0.416	-0.020	0.871	-0.213 - 0.191
5. Social Interaction: Keep Contact	-0.104	0.352	-0.294 - 0.073	-0.156*	0.055	(-0.279) - (-0.007)	0.080	0.400	-0.073 - 0.238
6. Social Interaction: Make Contact	0.121	0.192	-0.045 - 0.261	-0.060	0.607	-0.254 - 0.137	-0.059	0.554	-0.217 - 0.112
7. Sense of Community	-0.116	0.328	-0.318 - 0.068	0.123	0.271	-0.075 - 0.292	0.264**	0.010	0.073 - 0.407
8. Passing Time	-0.011	0.937	-0.243 - 0.214	0.079	0.382	-0.075 - 0.224	0.181'	0.069	0.013 - 0.345
9. Escapism	-0.072	0.604	-0.306 - 0.148	0.007	0.934	-0.113 - 0.171	-0.166'	0.080	-0.310 - 0.000
10. Income	0.040	0.750	-0.185 - 0.228	0.141	0.239	-0.069 - 0.326	-0.120	0.199	-0.265 - 0.043
11. Actual income	-0.143	0.108	-0.235 - 0.065	-0.041	0.420	-0.112 - 0.054	0.065	0.277	-0.049 - 0.146
12. Reputation	0.101	0.508	-0.158 - 0.338	-0.152	0.156	-0.319 - 0.030	0.022	0.847	-0.149 - 0.226
13. Professional Advancement	0.186'	0.08	-0.005 - 0.344	0.036	0.812	-0.217 - 0.286	0.227*	0.046	-0.005 - 0.344
14. Helping Behavior	0.233*	0.050	0.033 - 0.421	0.184	0.137	-0.023 - 0.383	0.204	0.115	-0.006 - 0.418

- Skill development and professional advancement drive content creation and word of mouth.
- Helping behavior increases time spent; reputation boosts word of mouth.
- Actual income reduces time spent, while escapism marginally encourages content creation.

90 % Significance Level
' = p < 0.100
* = p < 0.050
** = p < 0.010
*** = p < 0.001

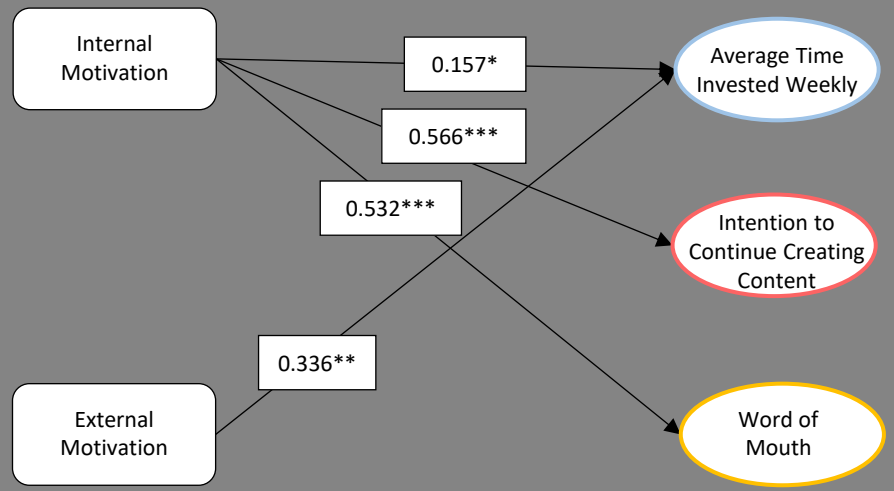
Comparison of ROBLOX & MINECRAFT Overall Motivation

ROBLOX



95 % Significance Level
* = p < 0.050
** = p < 0.010
*** = p < 0.001

MINECRAFT



90 % Significance Level
* = p < 0.050
** = p < 0.010
*** = p < 0.001

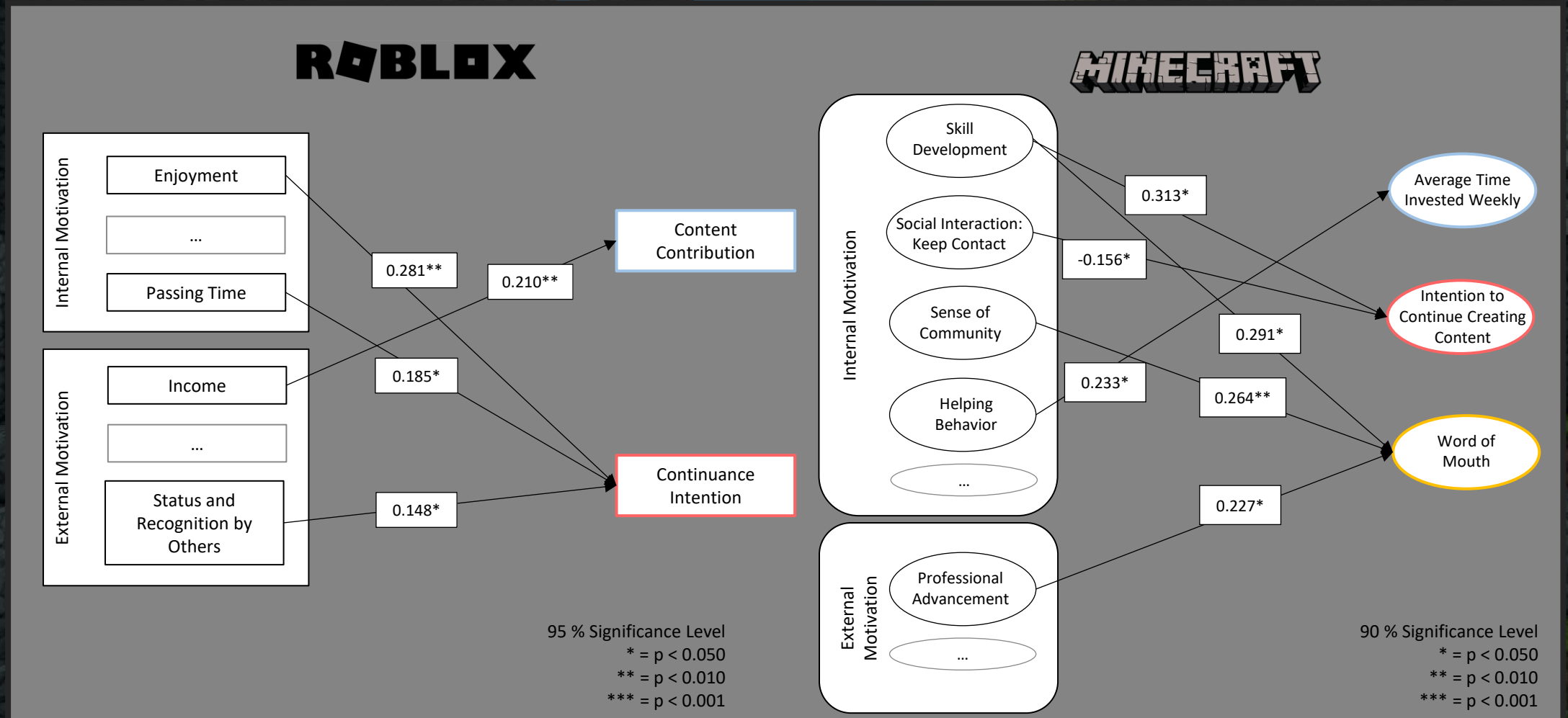
Comparison of ROBLOX & MINECRAFT Overall Motivation

- Significant correlation between Continuance Intention and Internal Motivation (***) for ROBLOX & MINECRAFT
  - -> Internally motivated creators are more likely to continue to create content.
  - -> External motivation seems to play a subordinate role.

- Significant correlation between Average Time Invested Weekly and both Internal (*) and External Motivation (**) for MINECRAFT
  - -> Both internal and external motivation seem to influence the amount of time creators invest.

- Significant correlation between Word of Mouth and Internal Motivation (***) for MINECRAFT
  - -> Internally motivated creators are more likely to recommend.
  - -> External motivation seems to play a subordinate role.

Comparison of ROBLOX & MINECRAFT Specific Motivation



Significant Correlation between Continuance Intention and...

ROBLOX

(+) Enjoyment (**)

(+) Passing Time (*)

(+) Status and Recognition by others (*)

Creators who find enjoyment in content creation and use it as a way to relax or pass the time are more likely to continue creating content.

Status and recognition by others seem to influence continuance intention, likely due to the young age of Roblox creators.

Creators seem to prefer working alone instead of collaborating on projects.

MINECRAFT

(+) Skill Development (*)

(-) Social Interaction: Keep Contact (*)

Creators seem to continue creating content to develop their skills.

-> Modding, Redstone: opportunity to create complex content

Creators who are motivated by social interaction seem to be more focused on engaging with others rather than continuing to create content.

-> Huge Minecraft community
-> Minecraft as a social platform

Significant Correlation between Content Contribution/Average Time Invested Weekly and...

ROBLOX

(+) Income (**)

Creators appear to be motivated by the prospect of earning extra income, such as the opportunity to accumulate Robux.

MINECRAFT

(+) Helping Behavior (*)

Content contribution seems to be encouraged by altruistic behaviour.

Significant Correlation between Word of Mouth and...

MINECRAFT

(+) Social Interaction: Keep Contact (*)

(+) Sense of Community (*)

(+) Professional Advancement (*)

Creators who use Minecraft as a social platform appear to be more likely to recommend content creation for Minecraft.

Creators who create content to benefit professionally appear more likely to reccomend content creation for Minecraft.

Theoretical Implications

- Internal motivation sustains long-term content creation, while external motivation only increases time investment

- Strong association with Content Continuation and Word of Mouth
  -> Supports Self-Determination Theory

- Helping Behavior increases time spent
  -> Supports Social Capital Theory

- Internal motivation (Skill Development, Self-Expression, Professional Growth) drives Engagement and Word of Mouth
  -> Supports the UGT Theory

Theoretical Implications

- UGT Theory doesn't fully differentiate between passive engagement (playing for fun) and active engagement (creating content for a purpose)
- Casual players -> driven by escapism and entertainment (short-term)
- Active Minecraft content creator -> not just consuming but producing content (long-term)
- UGT may need to be expanded or modified to include "skill-based gratification", which is a key factor for the content creators

Practical Implications

Let's go to watch "A Minecraft Movie" :)

"A Wonderland where anything you can imagine is possible"

Practical Implications

Is the metaverse a relevant space for content creators?

Self-Expression & Creativity: Creative Freedom

Skill Development & Learning Progression: Learning modules

Social & Community Driven Engagements: Shared building spaces

Purpose-Driven Content creation: World-building projects

Financial & Non-financial incentives

Addressing negative influences on Engagement: Escapism

Reflection

Limitations of study

- Small number of participants
- Participants invest different efforts in creating (very detailed vs. Simpler)

Nice people and meaningful connections

People felt seen

Filtering: Randomization of questions

Problems with data collection

Comparison with Roblox study harder because model was not exactly the same

Fictious answers

Contribution

Collectively:

Adaptation of survey on Limesurvey → Data Collection → Data Preparation in Excel → Data Preparation in SmartPLS ! → Interpretation of results and comparison with existing study

Individually:

Each of us used a different platform:

Theoretical: Lusil and Erkaiym

Roblox: Franziska and Julia

THANK YOU

Quit

Start Q&A