

*Bochum Conference  
on Gambling  
and Society |*

# Inter-country comparisons in gambling research

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# Subjective wellbeing and participation in online gambling communities: A cross-national gambling study among young people in Finland, United States, South Korea and Spain

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# Starting points



- Growing importance of online gambling
- Online ecosystem for online gamblers
  1. Gambling sites (**online casinos**)
  2. Financial resources (**pay-day loans, cryptocurrencies**)
  3. Advertisements (**targeted advertisement on gambling and loans**)
  4. Online gambling communities (**supporting peers**)
- Online gambling communities are a risk factor for development of gambling problems ([Oksanen et al., 2021](#); [Savolainen et al., 2022](#); [Sirola et al. 2018, 2021](#))

# Curse or cure?

- Online communities are significant for young people
  - Maintaining and creating social ties
  - Both positive and negative role
- Online gambling communities
  - **Curse:** Encouragement for gambling, less on gambling problems or gambling recovery (Sirola et 2018) → higher participation = more gambling problems
  - **Cure:** Online-gambling community participation had a positive relationship with life satisfaction, especially among pathological gamblers who had poor offline relationships (Koivula et al. 2022)
- Cross-national and contextual differences are likely

# Aims

- Aim here is to continue from [Koivula et al. 2022](#) article and investigate
  1. How online gambling participation is associated with happiness & psychological distress?
  2. How involvement in online identity bubbles is associated with happiness & psychological distress?
  3. Are these relationships moderated by gambling problems?

# Problem Gambling and Social Media Project

- **Funding:** Finnish Foundation for Alcohol Studies 2017–2020
- **PI:** Atte Oksanen
- **Researchers:** Dr. Markus Kaakinen, Dr. Aki Koivula, Dr. Iina Savolainen, Dr. Anu Sirola
- **Collaboration:** Prof. Hye-Jin Paek, Prof. Izabela Zych & Prof. Bryan Lee Miller, Prof. David Garcia
- **Data**
  - Cross-sectional and experimental data
  - Large scale data on social media gambling discussions

<https://projects.tuni.fi/problem-gambling-and-social-media/>

# YouGamble surveys

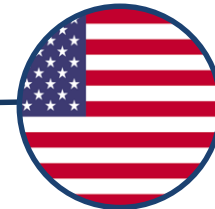
## *YouGamble*

- Online survey given to youths aged 15 to 25
- Dynata
- Includes an experiment on gambling messages
- Response time ca. 15 minutes



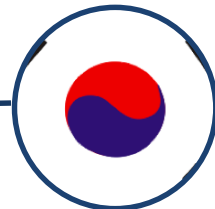
Finland

- $N = 1200$ ,  $M = 21.29$ ,  $SD = 2.85$ , 50.00% female)



the U.S.

- $N = 1212$ ,  $M = 20.05$ ,  $SD = 3.19$ , 50.17% female)



South Korea

- $N = 1192$ ,  $M = 20.61$ ,  $SD = 3.24$ , 50.42% female)



Spain

- $N = 1212$ ,  $M = 20.07$ ,  $SD = 3.16$ , 48.76% female)

# Gambling in the Digital Age Project (GDA)

- **Funding:** The Finnish Foundation for Alcohol Studies (2021–2024)
- **PI:** Atte Oksanen
- **Researchers:** Dr. Iina Savolainen, Dr. Eerik Soares Mantere, Dr. Anu Sirola, Ilkka Vuorinen, Heli Hagfors, Hannu Jouhki, Janne Vepsäläinen
- **Main aims:** 1) online gambling, 2) convergence of gambling and gaming, and 3) new forms of gambling
- **Data:** 1) Longitudinal survey data, 2) interview data, and 3) online data



# GDA longitudinal surveys

- ***Gambling in the Digital Age*** survey was targeted to Finnish speakers in mainland Finland in April 2021
  - Participants ( $N = 1530$ ): 18–75 years old ( $M = 46.67$ ;  $SD = 16.42$ ), 50.33% male
  - Data collection was administrated by Norstat
  - All respondents answered the 15-min survey online.
  - Sample vs. population: no major deviation in gender, age, geographical area; slightly more participants with higher education
- Follow-up surveys in 6-month intervals
  - T2, Oct–Nov 2021 ( $n = 1198$ , 78% out of T1)
  - T3, Apr–May 2022 ( $n = 1097$ , 72% out of T1)
  - T4, Oct–Nov 2022 ( $n = 1008$ , 66% out of T1)
  - T5, Apr–May 2023 ( $n = 937$ , 61% out of T1)
  - T6 to be collected, T7–T8 likely in 2024

# Main measures

- **Subjective well-being**
  - Happiness
  - Psychological distress (GHQ-12 for YouGamble; MHI-5 for GDA)
- **Online communities**
  - Gambling communities participation
  - Involvement in social media identity bubbles (IBRS-6, Kaakinen et al. 2020)
- **Gambling problems**
  - South Oaks Gambling Screen (SOGS) for YouGamble
  - Problem Gambling Severity Index (PGSI) for GDA

**Table 1. YouGamble regression models on happiness and distress (gambling communities)**

	Happiness		Psychological distress	
	Beta	P	Beta	P
<b>Gambling problems (SOGS)</b>	-.04	.001	.15	<.001
<b>Participation to online gambling communities</b>				
Seldom	.01	.465	.00	.897
Daily	.03	.024	.00	0.912
<b>Belonging offline</b>	.59	<.001	-.35	<.001
<b>Age</b>	.01	.592	.05	<.001
<b>Female gender</b>	-.01	.293	.15	<.001
<b>country (ref. Finland)</b>				
United States	.05	.001	-.02	.128
South Korea	-.09	<.001	-.01	.461
Spain	-.01	.702	.02	.320

Model n = 4,816,  $R^2_{\text{happiness}} = .37$ ,  $R^2_{\text{distress}} = .17$

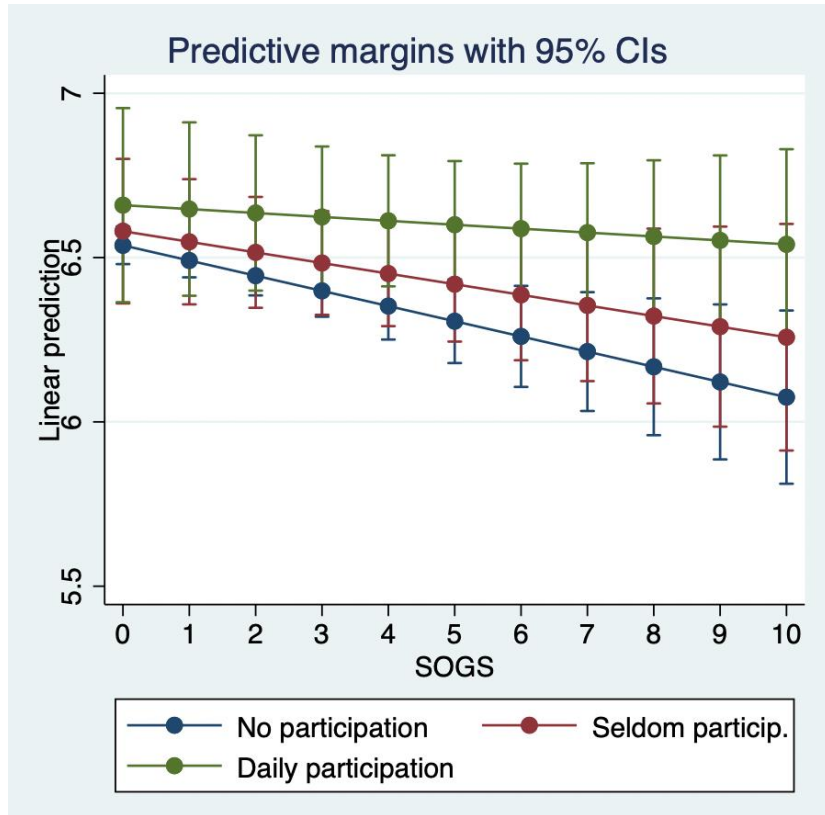
**Table 2. YouGamble regression models on happiness and distress (online identity bubbles)**

	Happiness		Psychological distress	
	Beta	P	Beta	P
<b>Gambling problems (SOGS)</b>	-.04	.001	.14	<.001
<b>Online identity bubbles</b>	.07	<.001	.11	<.001
<b>Belonging offline</b>	.57	<.001	-.37	<.001
<b>Age</b>	.01	.272	.05	<.001
<b>Female gender</b>	-.02	.141	.14	<.001
<b>country (ref. Finland)</b>				
United States	.03	.027	-.06	.001
South Korea	-.10	<.001	-.03	.070
Spain	-.02	.273	-.01	.689

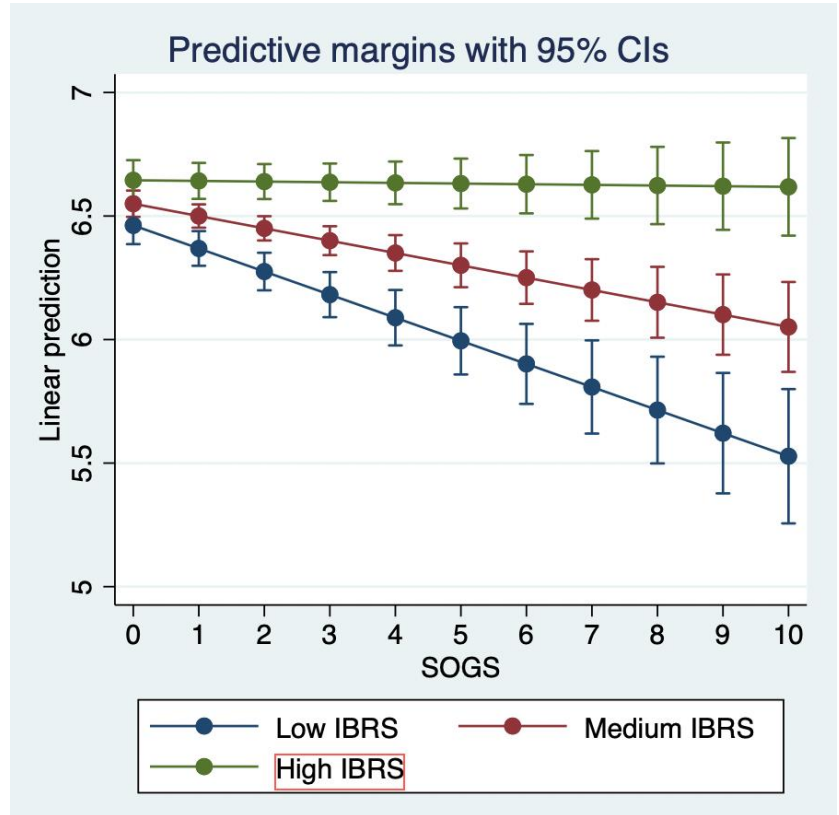
Model n = 4,816,  $R^2_{\text{happiness}} = .37$ ,  $R^2_{\text{distress}} = .19$

# Happiness moderations

Happiness on scale 1 to 10 (very happy)



Online Gambling community participation

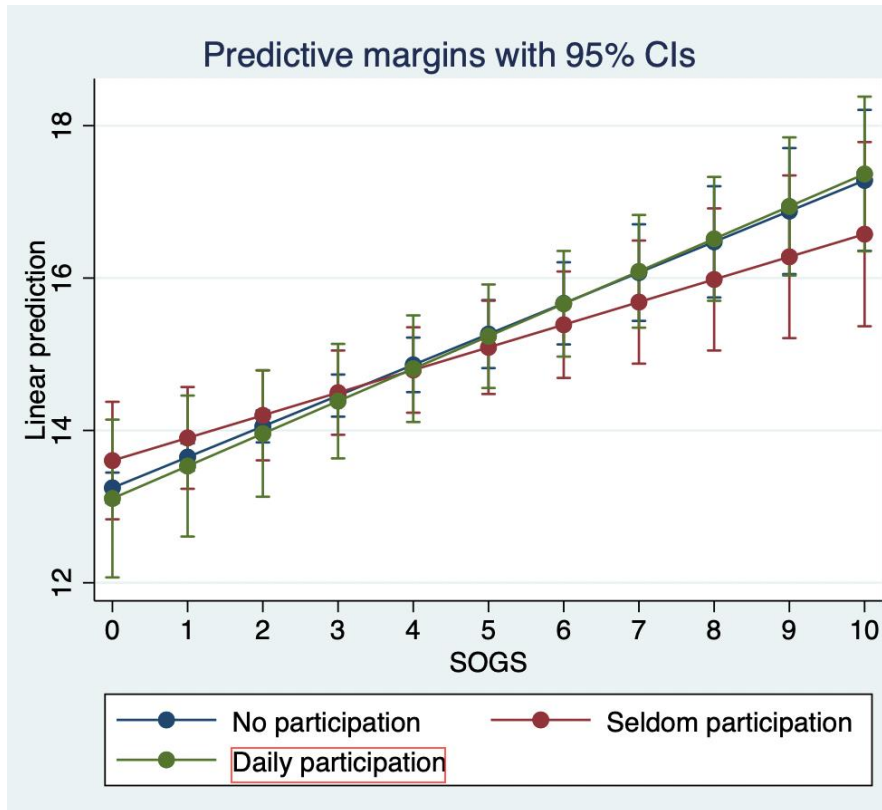


Online identity bubble involvement

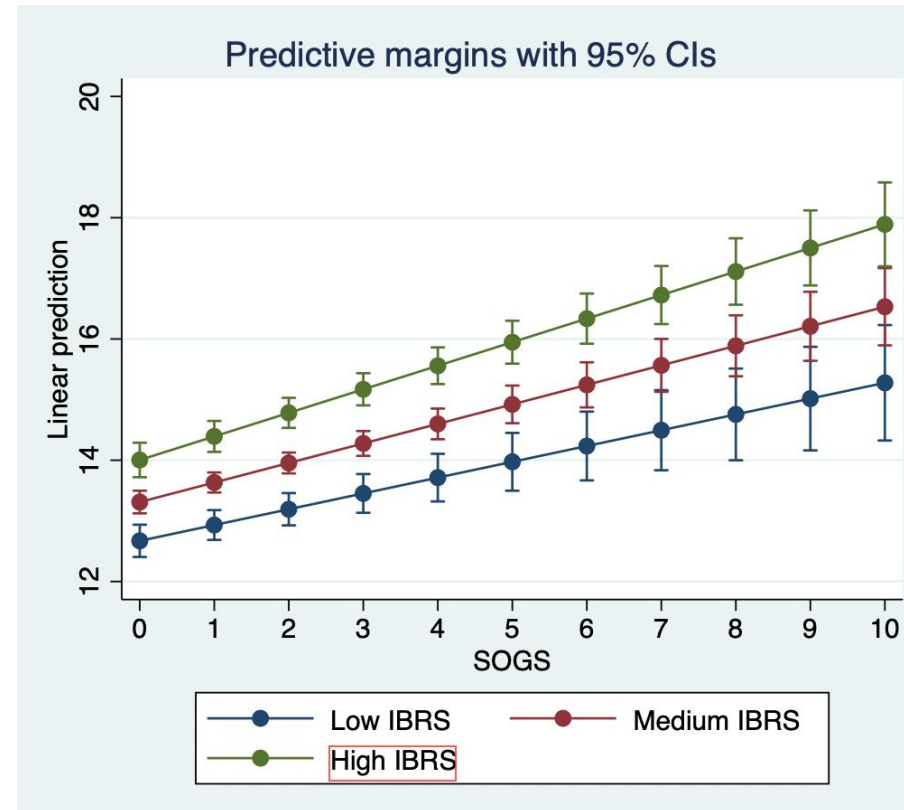
*Note.* interaction not significant

# Distress moderations

Distress on scale 0–36 (very distressed)



Online Gambling community participation



Online identity bubble involvement

*Note.* interaction not significant

# Longitudinal considerations

- Hybrid multilevel regression
  - 5 time points,  $n = 1530$ , obs in the models = 5,761)
  - PGSI had both within-person and between-person effects on distress (very robust evidence)
  - IBRS had between-person-effect (higher IBRS associated with higher distress)
  - Gambling community participation had no effect
  - No statistically significant interactions



**Online gambling environment  
in Fritz Lange style  
according Dall-E2 (2023)**

# Discussion

- Some evidence: online communities = **cure and buffer**
  - Happiness: no decrease among those highly involved and bubbled
- More evidence: online communities = **curse**
  - Higher involvement to online bubbles = higher distress
  - Both evidence from cross-national and longitudinal study
  - Longitudinal evidence: more gambling problems if gambling communities + IBRS (Vepsäläinen et al., forthcoming)
- Limitations: self-reported, longitudinal findings limited to Finland, single-item for happiness
- Future studies need to continue analysing the dual nature of online community participation



# Selected publications

- Koivula, A., Oksanen, A., Sirola, A., Savolainen, I., Kaakinen, M., Zych, I., Paek, H-J. (2022). Life satisfaction with gambling communities: a cross-national study of excessive gambling actives among Finnish, South-Korean, Spanish and American emerging adults. *Journal of Gambling Studies*, 38, 1195–1214
- Oksanen, A., Sirola, A., Savolainen, I., Koivula, A., Kaakinen, M., Vuorinen, I., Zych, I., & Paek, H. J. (2021). Social ecological model of problem gambling: A cross-national survey study of young people in the united states, south korea, spain, and finland. *International journal of environmental research and public health*, 18(6), 3220.
- Savolainen, I., Kaakinen, M., Sirola, A., Koivula, A., Hagfors, H., Zych, I., Paek, H.-J., Oksanen, A. (2020). Online relationships and social media interaction in youth problem gambling: A four-country study. *International Journal of Environmental Research and Public Health*, 17(21)8133.
- Savolainen, I., Sirola, A., Vuorinen, I., Mantere, E., & Oksanen, A. (2022). Online communities and gambling behaviors—A systematic review. *Current Addiction Reports*, 9(4), 400-409.
- Sirola, A., Kaakinen, M., & Oksanen, A. (2018). Excessive gambling and online gambling communities. *Journal of Gambling Studies*, 34(4), 1313–1325.
- Sirola, A., Kaakinen, M., Savolainen, I., & Oksanen, A. (2019). Loneliness and online gambling-community participation of young social media users. *Computers in Human Behavior*, 95, 136-145.
- Sirola, A., Savela, N., Savolainen, I., Kaakinen, M., & Oksanen, A. (2021). The role of virtual communities in gambling and gaming behaviors: A systematic review. *Journal of Gambling Studies*, 37(1), 165-187.

# YouGamble data is accessible

- Oksanen, A., Sirola, A. & Kaakinen, M. (2017) YouGamble 2017: Finnish Data. Finnish Social Science Data Archive. <http://urn.fi/urn:nbn:fi:fsd:T-FSD3399>
- Oksanen, A., Sirola, A. & Kaakinen, M. (2017) YouGamble 2017: Additional Finnish Data. Finnish Social Science Data Archive. <http://urn.fi/urn:nbn:fi:fsd:T-FSD3400>
- Oksanen, A. Kaakinen, M., Sirola, A. & Savolainen, I. (2018): YouGamble 2018: US Data. Finnish Social Science Data Archive [distributor]. <http://urn.fi/urn:nbn:fi:fsd:T-FSD3591>
- Spanish and South Korean data should be released in FSD by the end of the 2023
- See more: <https://projects.tuni.fi/problem-gambling-and-social-media/>
- See more: <https://projects.tuni.fi/gamblinginthedigitalage/>

**Thank you**