

Digital gaming, gambling and money consumption

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Intro

- Traditional gambling games in Finland
 - Everyday environments
 - Specific places
 - Separated from other games, such as board games or digital games
- Online technologies and environments have blurred the lines between established categories
 - Digital games integrate gambling elements, such as loot boxes or daily spins
 - New forms of digital, online and hybrid gambling games use similar immersive elements as those which are employed in video games
- New monetization models in digital games
 - Games as services
 - Free-to-play, free-to-spend-us-much-as-you-can
 - Money consumption during playing -> similarities to many gambling games
 - Rhythms, designed paying/winning intervals, players' self regulation

About the Finnish Player Barometer(s)

- The Finnish Player Barometer study has been conducted six times
 - Nationally representative datasets
- What games do Finns play?
 - Traditional (non-digital) games (including lottery & betting, slot machine & casino and horse race betting games)
 - Digital games
 - Game platforms (including online gambling sites)
 - Game genres (including digital gambling; chance and skill based)
 - E-sports and streaming (including e-sports betting) (NEW)
 - Consumption of time and money (including online gambling)
 - Forms of buying games
 - Problems related to digital gaming
 - Attitudes towards game playing (NEW)



The Finnish Player Barometer 2018

- n=946
- 97,8 % play games
- 76,1 % play digital games
- 75,9 % gamble
 - 38,5 % play digital gambling games
 - 29,2 % play online gambling games
 - 1,8 % bet on e-sports
- 32,6 % play free-to-play games
 - 56,9 % play mobile games → ?
 - 5,9 % play social casino games



The Finnish Player Barometer 2018

- 14,7 % have used money in free-to-play games
 - 39 % of active F2P-gamers have used money (same as in 2015)
- 31 % buys digital games from shops (37 % in 2015) ($X^2= 4,54, p< 0,05$)
 - Active digital gamers: 57,4 % (2015) → 46 % (2018) ($X^2=11,92; p<0,01$)
- 31 % buys digital games from online platforms
 - Active digital gamers: 40 % (2015) → 52 % (2018)



Consumption of time and money in digital gaming (includes online gambling)

		Mean	Cor. mean	Median	SD	N
TIME (h /week)	2018	6,65	4,76	2	11,79	628
	2015	5,65	4,17	2	9,583	752
	2013	4,86	3,65	2	7,908	532
	2011	4,21	3,23	2	6,38	603
	2010	4,58	3,67	2	6,101	545
	2009	4,18	2,95	0	7,591	664
MONEY (€ / month)	2018	17,02	11,03	0	39,446	595
	2015	13,63	6,3	0	46,051	748
	2013	14,25	6,11	0	62,015	507
	2011	13,88	7,23	0	78,469	564
	2010	15,46	10,16	2	32,157	453
	2009	8,42	4,72	0	23,01	628

- Males use three times more time and money in digital gaming than females
- Younger use more time
 - 20-29 year olds 13 h
 - 10-19 y/o 11 h
- Money consumption is not similarly clear
 - 50-59 y/o use the most money, 24 €/month
 - 20-29 y/o, 23 €
 - 60-69 y/o, 19€
 - 30-49 y/o, 17 €
 - 70+ y/o, 14 €
 - 10-19 y/o, 6 €
- No statistically significant changes in money usage between 2015 and 2018 (age groups and gender)

	Money usage (€/week) in digital gaming			P-value
	0	0<=3	3+	
Lottery and betting	2.270 (1.207)	2.261 (1.042)	2.829 (1.241)	0
Horse race betting	1.066 (0.358)	1.130 (0.499)	1.111 (0.411)	0.1722
Slot machine and casino games	1.305 (0.717)	1.348 (0.566)	1.829 (1.093)	0
Veikkaus' online site	1.279 (0.712)	2.087 (1.151)	2.786 (1.312)	0
Foreign online gambling site	1.017 (0.152)	1.109 (0.379)	1.248 (0.655)	0
Chance-based digital gambling	1.413 (0.888)	2.239 (1.196)	2.932 (1.298)	0
Skill-based digital gambling	1.085 (0.397)	1.543 (0.936)	1.726 (1.127)	0
Esports-betting	1.000 (0.058)	1.043 (0.206)	1.043 (0.203)	0

Problems

	Repeatedly	Rarely	No problems	Can't say
Time related problems in digital gaming	1,2 %	8,3 %	88,8 %	1,7 %
Money related problems in digital gaming	0,3 %	2,0 %	96,3 %	1,4 %

Problems

	Time-related problems	Time-related problems repeatedly	Money-related problems	Money-related problems repeatedly
Female	9,2 %	1,2 %	1,6 %	0,2 %
Male	10,1 %	1,3 %	2,7 %	0,2 %
Active digital entertainment game players	18,4 %	2,5 %	3,5 %	0,5 %
Active gamblers	6,3 %	0,9 %	3,5 %	0,2 %
Active gamblers of chance-based games	4,5 %	0,0 %	4,9 %	0,4 %
Active gamblers of skill-based games	9,1 %	0,0 %	9,0 %	0,0 %

Discussion

- Digital gamers and gamblers are not separate groups
 - Those who use the most money on digital gaming also gamble most frequently
- As the line between gambling and digital gaming keeps on blurring, also different player groups overlap
 - On the other hand, older or more established forms of gambling might not be as attractive to new gamer generations as converged forms (e.g. Kinnunen & Macey 2019)
- Mobile gaming is rising all the time
 - Technological convergence
 - Money transfer, gambling, gaming, social interaction, digital entertainment etc. in a single device
- F2P business model still significant
 - Money consumption during playing
 - Money consumption in various game genres
 - Lower threshold to use money in novel forms of gam(bl)ing
 - For example, social casino games less regulated than established forms of gambling
- The future?
 - Males use 3 times more time and money on digital gaming than females
 - Level of e-sports betting is low, but the industry has high hopes
 - Hybrid, social, skill-based digital gambling games?

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