



Digital Gaming Trends in Finland

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The structure of the presentation

- **Brief history of video gaming**
- **Time spent with media** across an average day
- **Digital gaming trends** among different population groups
- **Digital gaming** and its relation to **physical activity**, subjective **health & social life**
- **Summary & Discussion**



Data & sources

- **Statistics Finland:** Time Use Surveys 1987, 1999 & 2009 (n= 7 800, 5 322 & 3 795)
- **Statistics Finland:** Leisure surveys 1991, 2002, & 2017 (n= 4 378, 3 355, 7 155)
- **University of Tampere:** Finnish Player Barometer 2018 (n= 946)
- **Finnpanel Oy:** National TV Audience Measurement 1988 – 2017 (n= ca. 2 300 in year 2017)

Brief history of video gaming

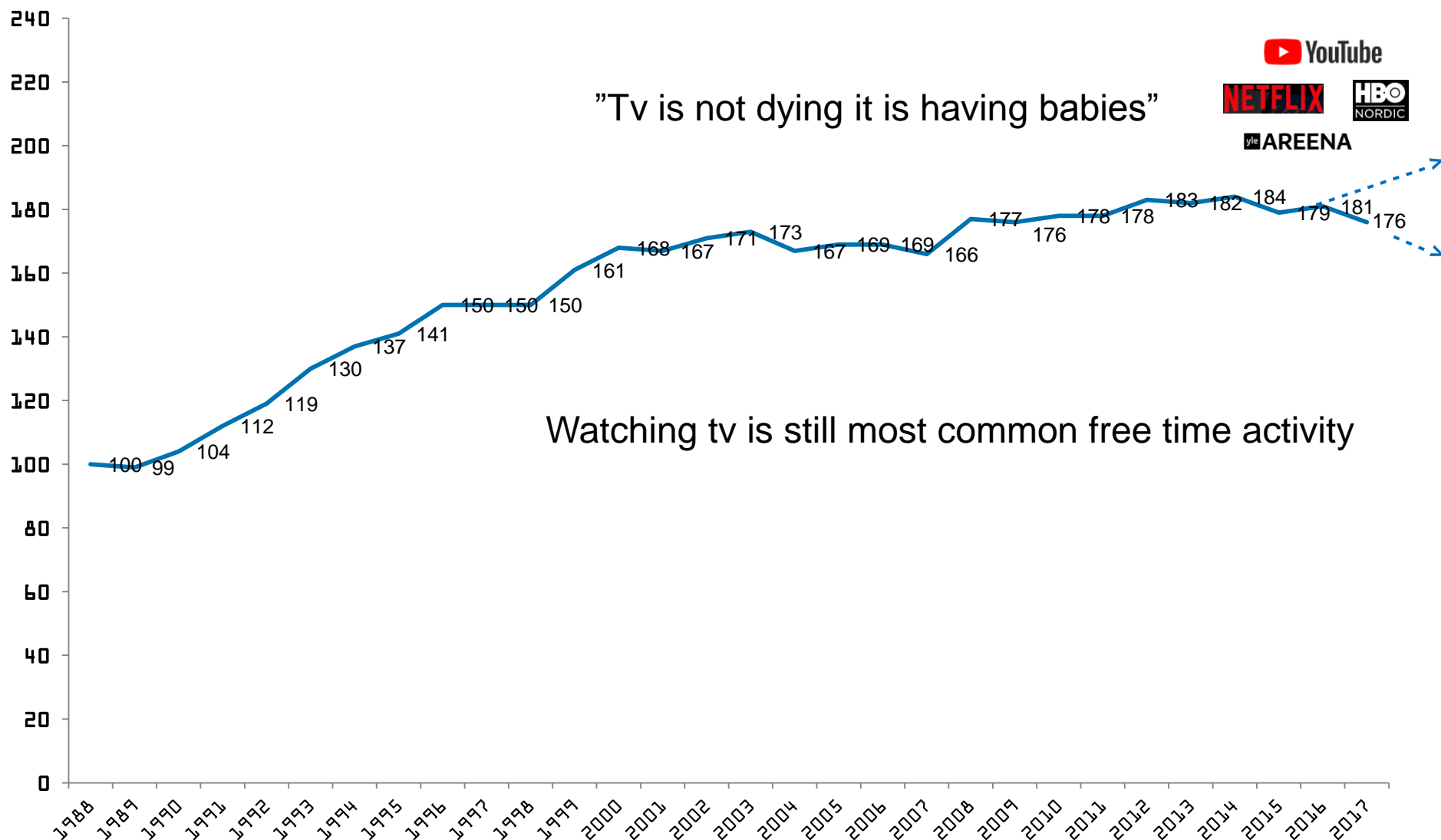
- **1970's** first arcade video games and home consoles
- Early **1980's** first handheld electronic games
- Early **1980's** computers came to homes through games and play
- Early **1990's**, playing games (**53 %**) still the most commonly way of using a home computer ([Leisure survey 1991](#))
- **1990's** first video games played on a mobile phone
- Early **2000's** almost **40 %** of all 10+ yo played video games ([LS 2002](#))
- Early **2000's** nearly **all** 10–14 yo boys played video games ([LS 2002](#))
- Mid **2000's** 7th generation of game consoles (PS3, Xbox 360, Wii)
- **2010's** Rise of the mobile (app) games e.g., Angry Birds, Pokémon Go

Time spent with media in 2009

- On average Finnish people had **6 h 40 min** of free time a day
- Time spent with **media** accounted **56 per cent** (3 h 44 min) of daily free time
- In 2009 watching **television** was the most popular of all free time activities



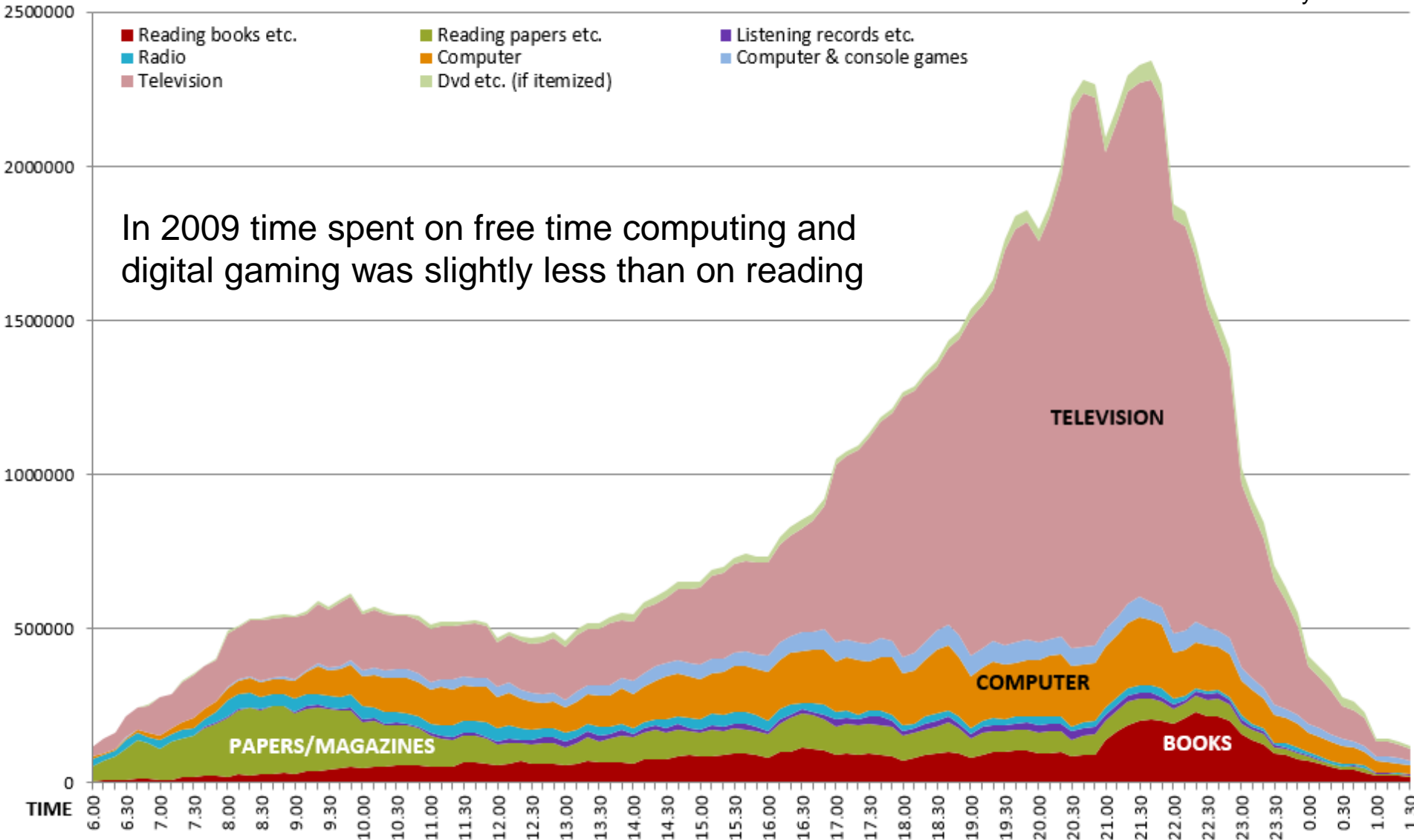
Linear tv: Daily viewing minutes 1988–2017 (All 10+)



Media consumption as main activity, all 10+ (2009)

No of survey days: 7 480

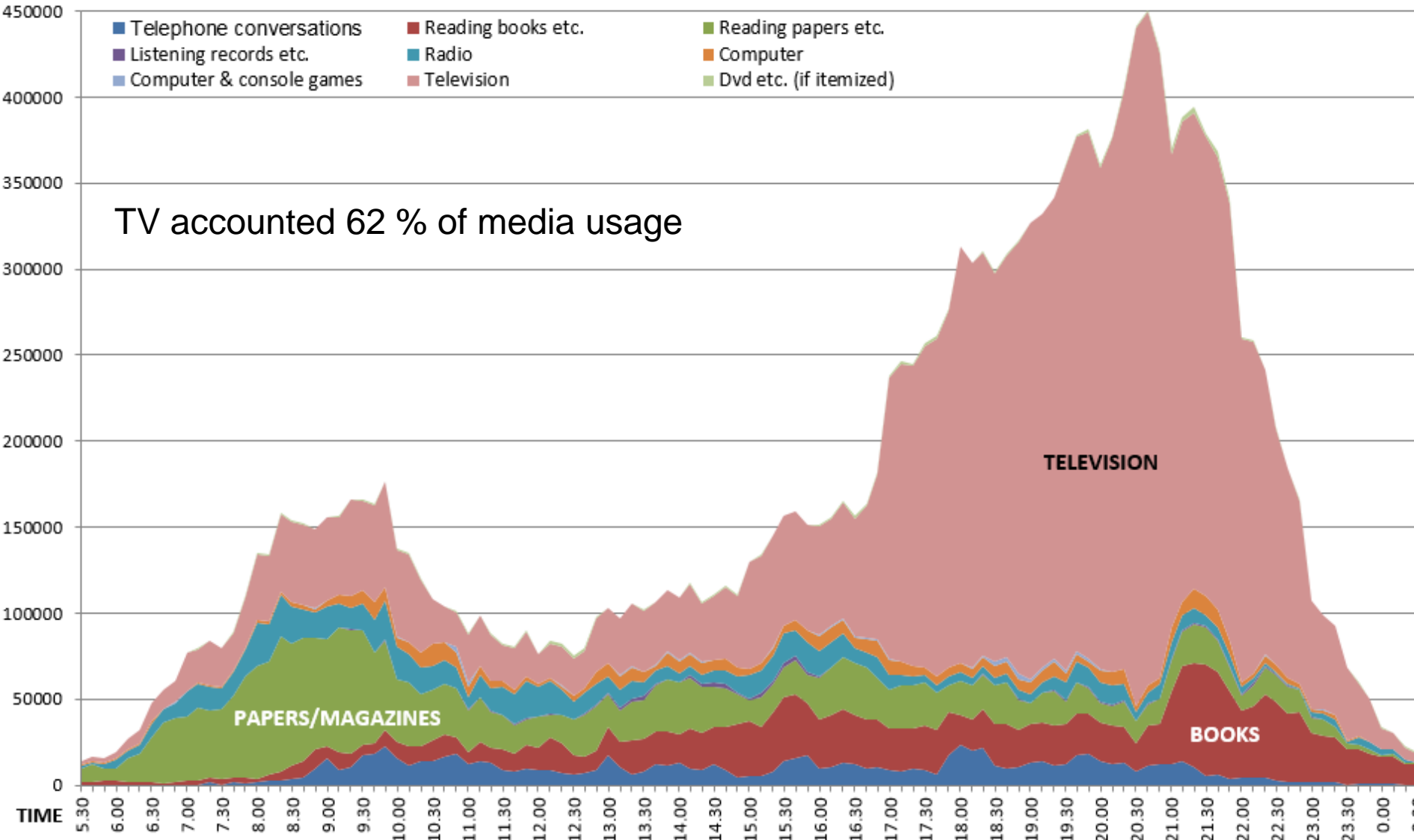
Population est.



Media consumption as main activity, women 60+ (2009)

No of survey days: 1 135

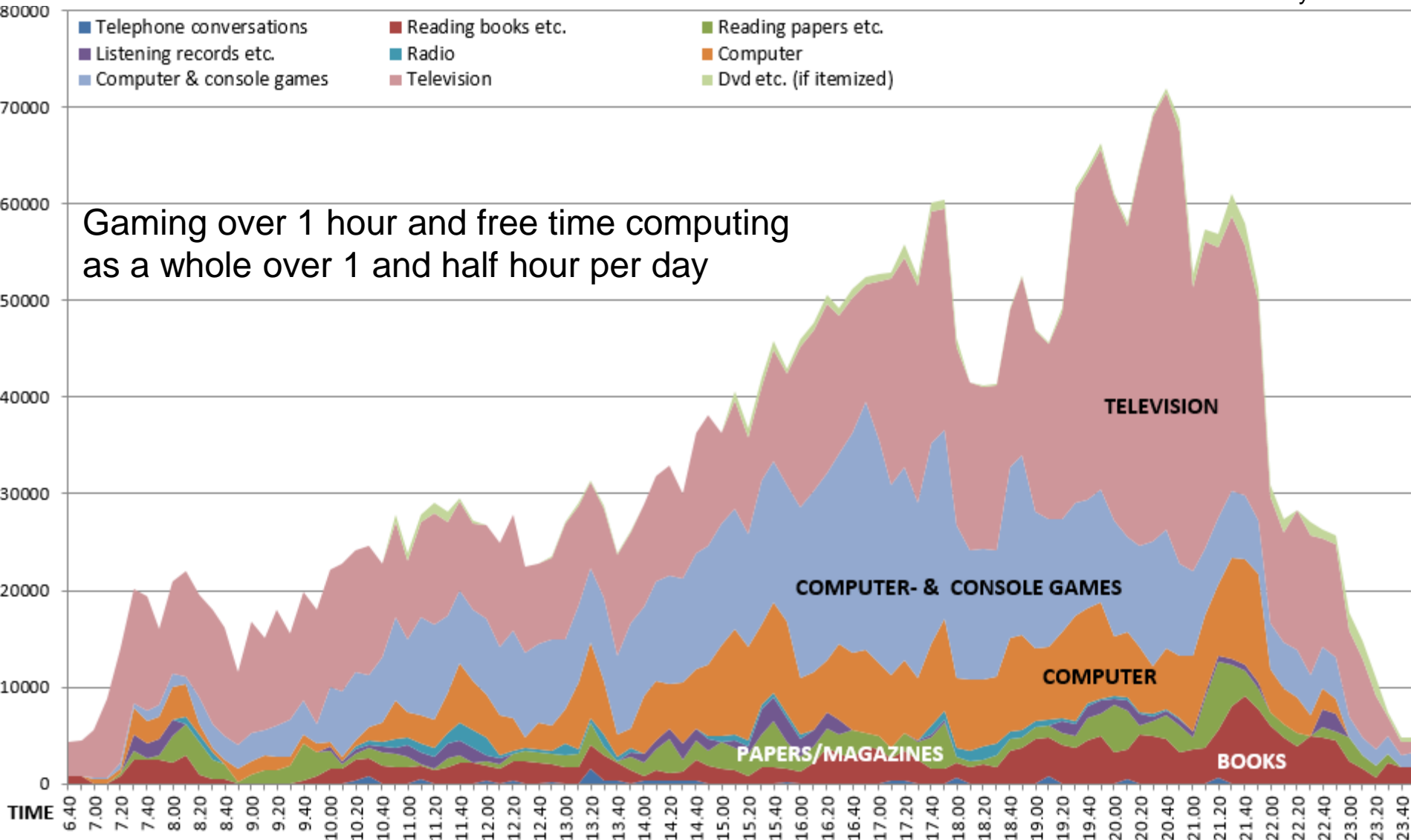
Population est.



Media consumption as main activity, men 10-14 yo (2009)

No of survey days: 260

Population est.



Free time computer & console usage by age & gender (2009)

Min/day

120

100

80

60

40

20

0

110

62

All 10+

M 10-14

W 10-14

M 15-29

W 15-29

M 30-44

W 30-44

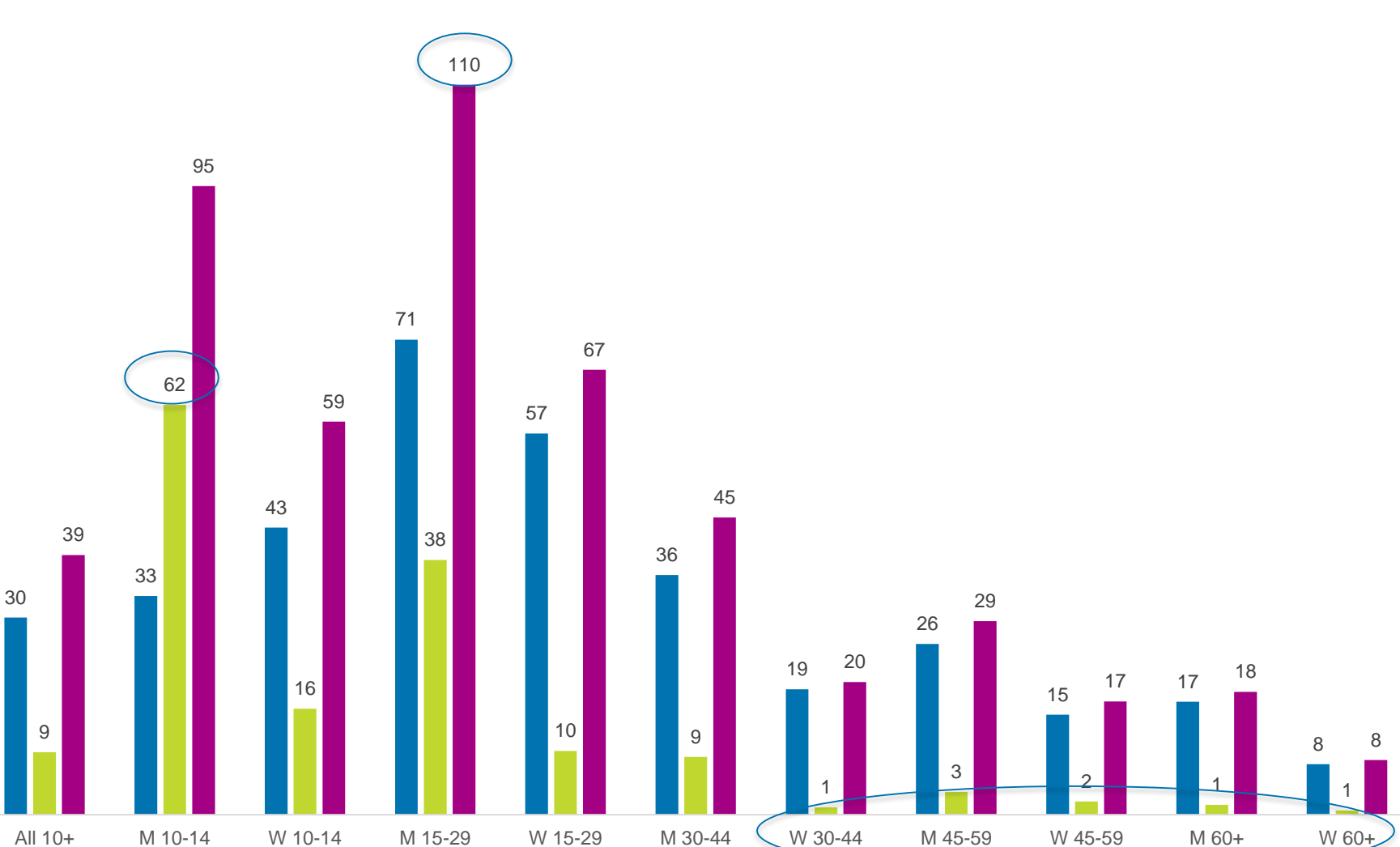
M 45-59

W 45-59

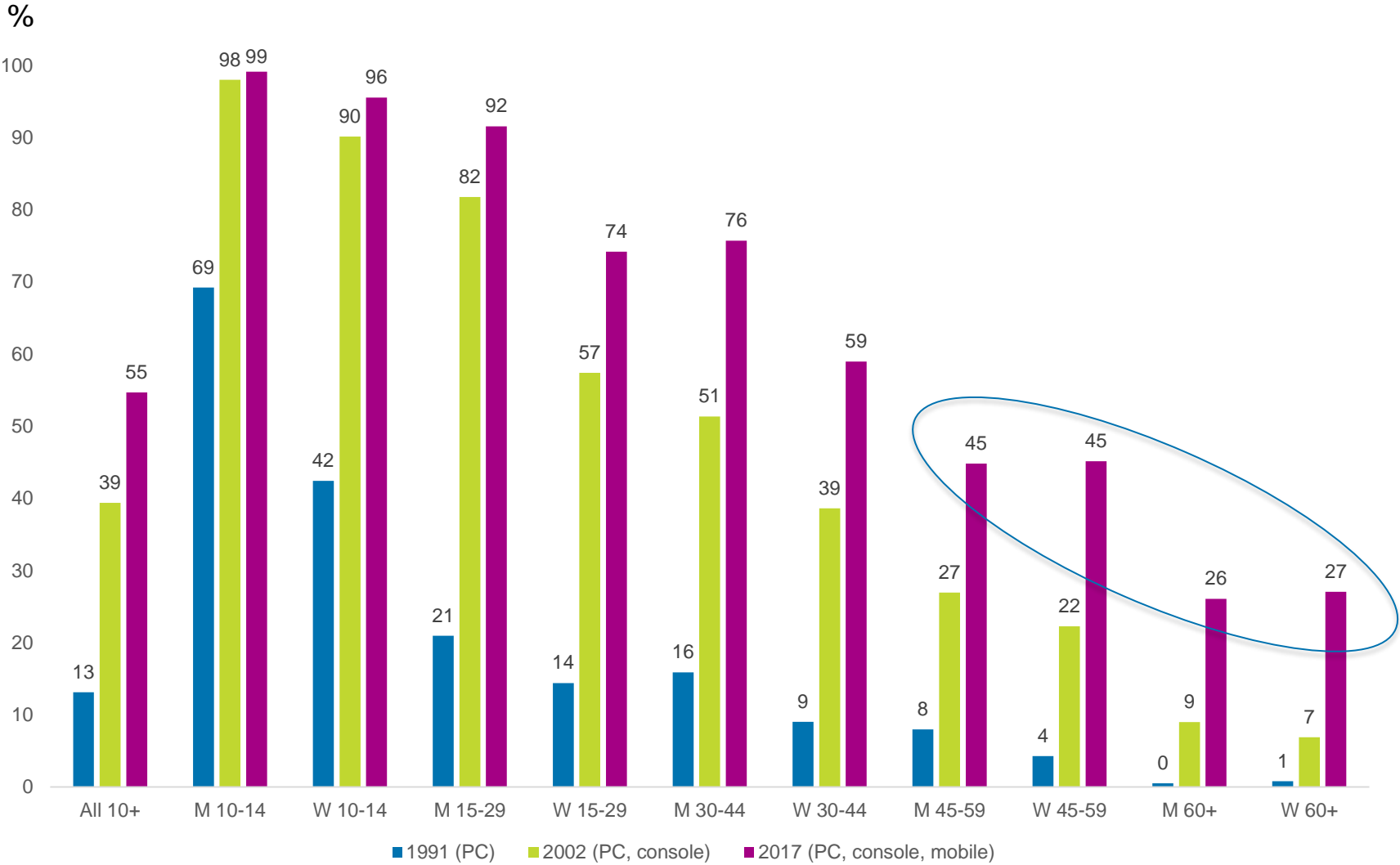
M 60+

W 60+

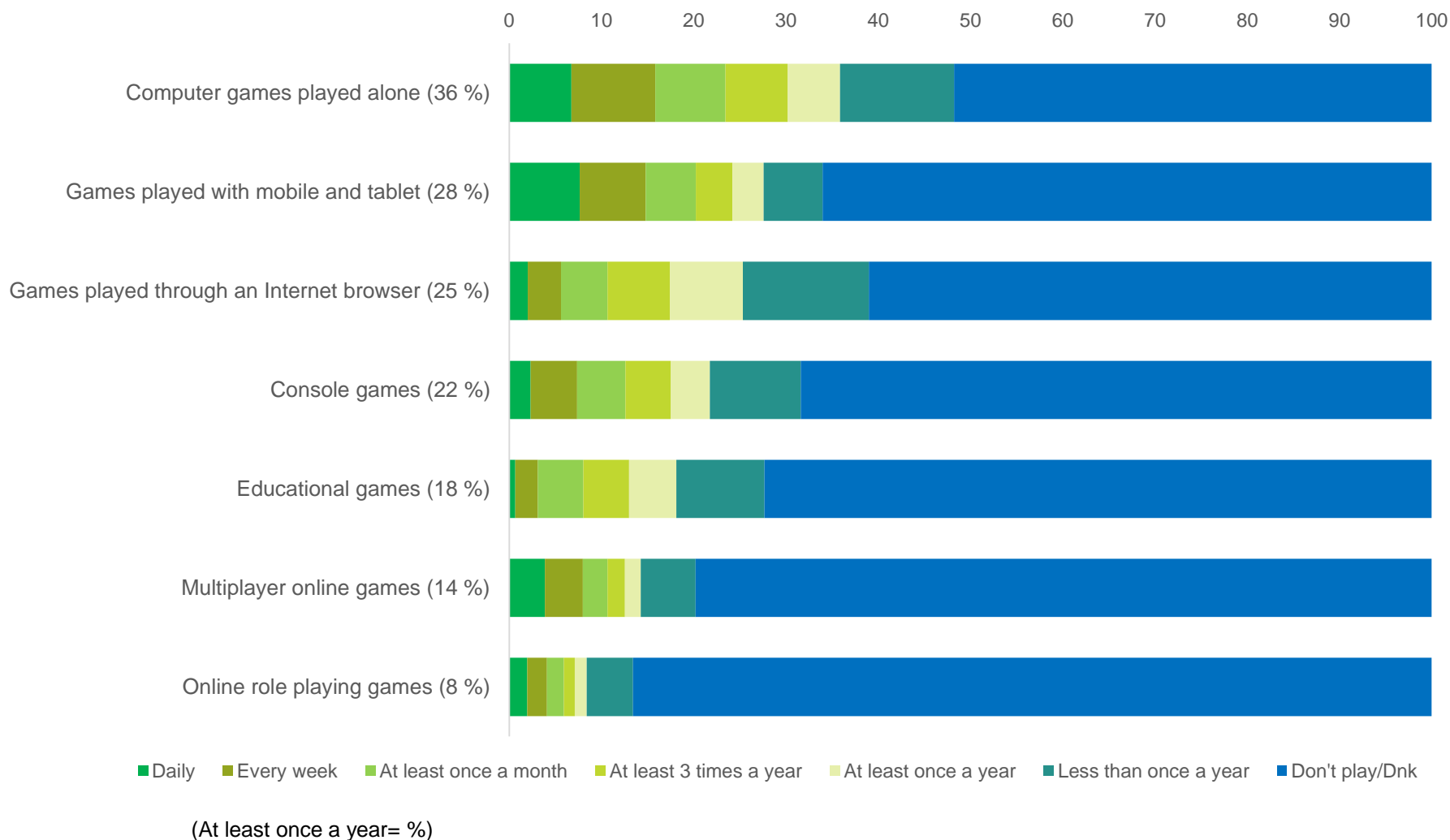
■ Other PC usage ■ Gaming ■ Total



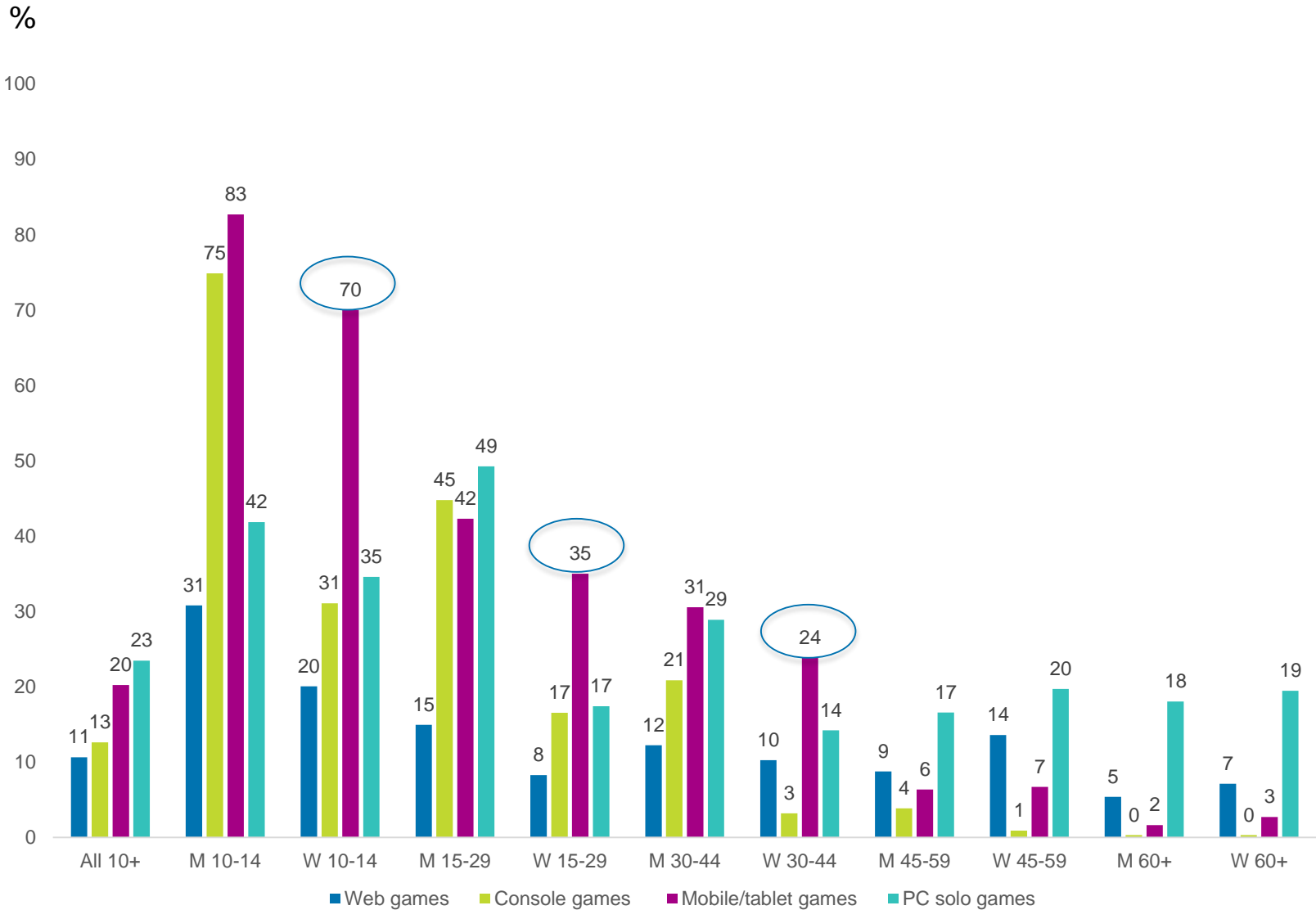
Playing digital games by age & gender (1991–2017, at least once a year)



Frequency (%) of playing digital games (2017)



Frequent playing of digital games (2017, once a month or more)



Top 3 platforms

All: frequently

PC solo games

Mobile/tablet games

Console games

Men: frequently

PC solo games

Mobile/tablet games

Console games

Women: frequently

PC solo games

Mobile/tablet games

Web browser games

All: less frequently

Web browser games

PC solo games

Educational games

Men: less frequently

Web browser games

PC solo games

Educational games

Women: less frequently

Web browser games

PC solo games

Console games

Frequently: at least once a month

Top 10 games among frequent players

All 10–75 yo

Solitaire etc.

Fortnite

Candy Crush

Mahjong

The Sims

Counter-Strike

NHL

Grand Theft Auto

Sanapala (puzzle game)

Pokémon

Men

Solitaire etc.

Fortnite

Counter-Strike

NHL

Grand Theft Auto

PUBG*

Call of Duty

Battlefield

World of Tanks

FIFA, Rainbow Six

Women

Solitaire etc.

Candy Crush

Mahjong

The Sims

Sanapala (puzzle game)

Pokémon

Tetris

Hay Day

Super Mario

Sudoku, Fortnite

*PlayerUnknown's Battlegrounds



Digital Gaming and its Relation to Physical Activity, Subjective Health and Social Life

The volume of playing digital games has some relation to going in for sports. However, doing exercise is more dependent on gender and age

Tests of SurveyReg Model Effects: Physical Exercise

R² .05 (adj .04)

Effect	<i>df</i>	<i>F</i> value	<i>P</i> value
Model	19	17,9	<.001
Intercept	1	9587,6	<.001
Playing freq (1,2)	1	9,6	<.01
Gender (1,2)	1	1,2	ns
Age group (1-5)	4	42,5	<.001
Gender x age	4	5,3	<.001
Pl fg x gndr x age	9	1,8	ns

The volume of playing digital games has some relation to experienced health. However, subjective health is more dependent on gender and age

Tests of SurveyReg Model Effects: Subjective Health

R² .11 (adj .11)

Effect	<i>df</i>	<i>F</i> value	<i>P</i> value
Model	19	59,5	<.001
Intercept	1	57596,6	<.001
Playing freq (1,2)	1	5,0	<.05
Gender (1,2)	1	14,3	<.001
Age group (1-5)	4	136,0	<.001
Gender x age	4	4,5	<.01
Pl fg x gndr x age	9	1,7	ns

The volume of playing digital games has no relation to frequency of meeting friends as such unlike gender and age

Tests of SurveyReg Model Effects: Meeting Friends

R² .25 (adj .25)

Effect	<i>df</i>	<i>F</i> value	<i>P</i> value
Model	19	71,9	<.001
Intercept	1	2371,0	<.001
Playing freq (1,2)	1	0,8	ns
Gender (1,2)	1	17,1	<.001
Age group (1-5)	4	254,0	<.001
Gender x age	4	1,6	ns
Pl fg x gndr x age	9	2,0	<.05

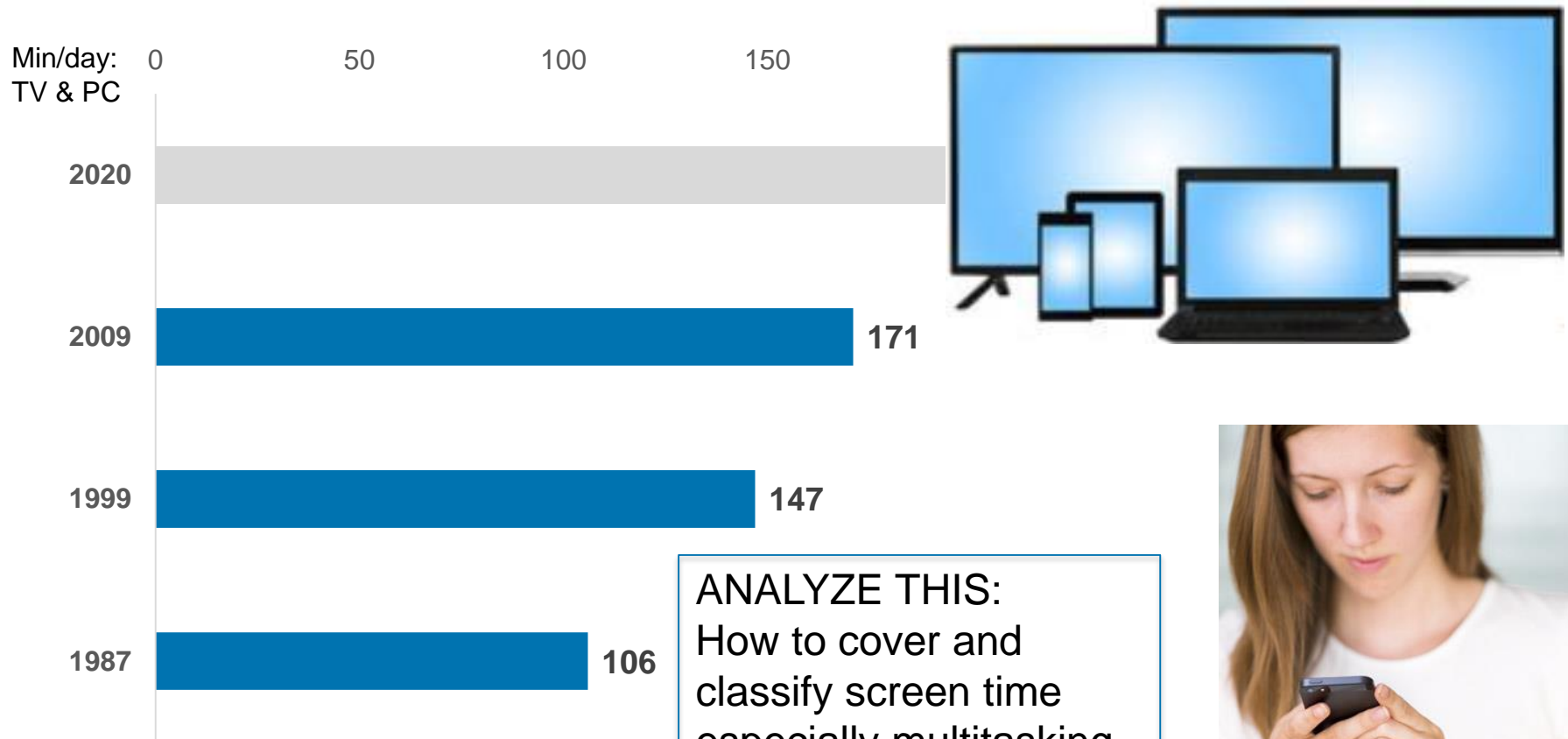
Summary

- Today majority of people (55 %) play digital games.
- Rise in the adoption of mobile devices is one of the reasons why digital gaming has expanded beyond traditional gamers
- Mobile games are often easy access casual games, which do not demand invest in money, time or special gaming competence
- Mobile games are most played game type among frequent female players under 45
- Still men are more active players than women.
- Men lean towards shooting, action and sport games while women prefer simulation games and more casual and friendly type of games
- Elderly people prefer alone played pc games such as Solitaire and Sudoku
- Playing digital games has quadrupled in 25 years. Among oldest age groups the growth have been greatest
- Among frequent players time used into playing games has increased over 60 per cent from 2009 to 2018
- Median age (1991, 19 years; 2017 35 years) of players is rising while new gamer generations grow

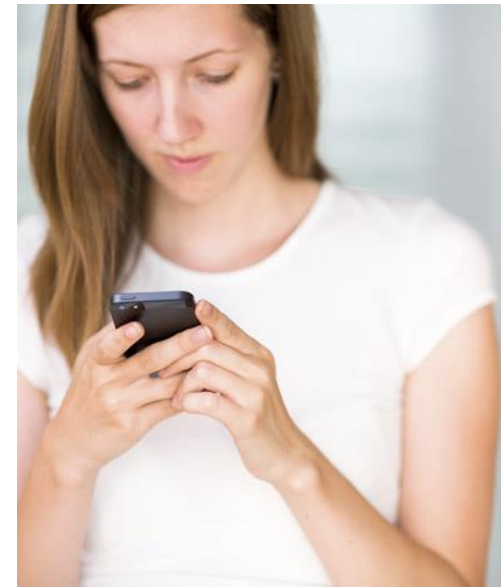
Discussion

- There was indication that 15 – 44 yo male gamers were socially more active than non active gamers or non gamers but active 15 – 59 yo female gamers were socially less active than their counterparts
- The results also showed, that active gamers were physically less active (R^2 .05) and felt slightly less healthy (R^2 .11) than others
- Games are different e.g., Pokémon Go type of mobile games can encourage physical activity - not to mention actual exercise games
- The positive effects of digital gaming to cognitive skills are well known (e.g., Moisala 2017)
- However, a tendency to use several media simultaneously (i.e., media multitasking) is related to increased distractibility (ibid)
- Mobile devices are elementary part of every day life and being constantly online is a new normal. How this ubiquitous computing presents itself in time use is an essential question in HETUS 2020

Humans spend more time with screens than ever before



ANALYZE THIS:
How to cover and classify screen time especially multitasking, short events, parallel and main activity and which is which?





THANK YOU

Statistics Finland 

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