

Everyday life changes in times of digitalization

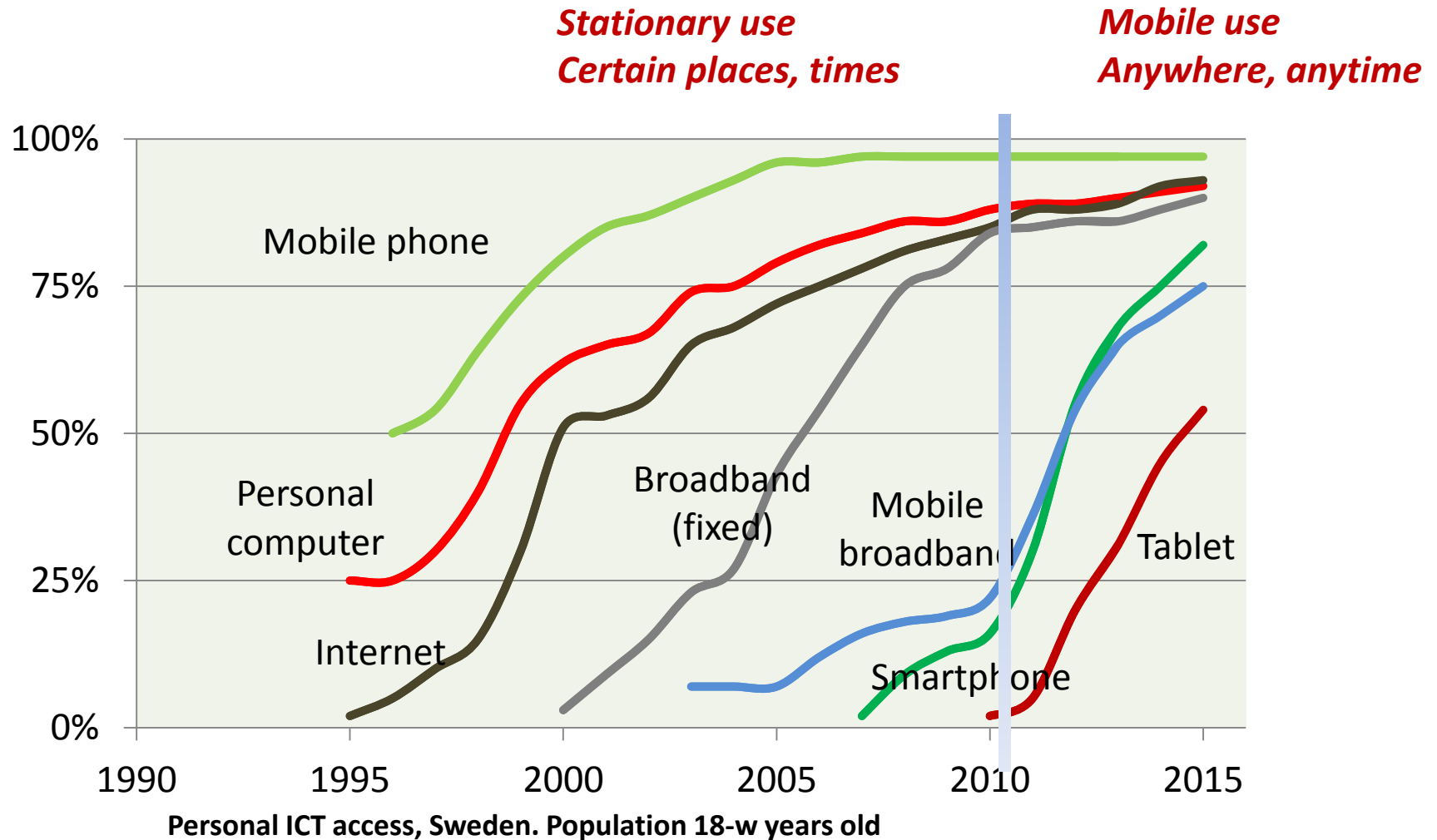
Examining the daily activity patterns of
young people
in Sweden between 1990 and 2016

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Background: Digitalization times

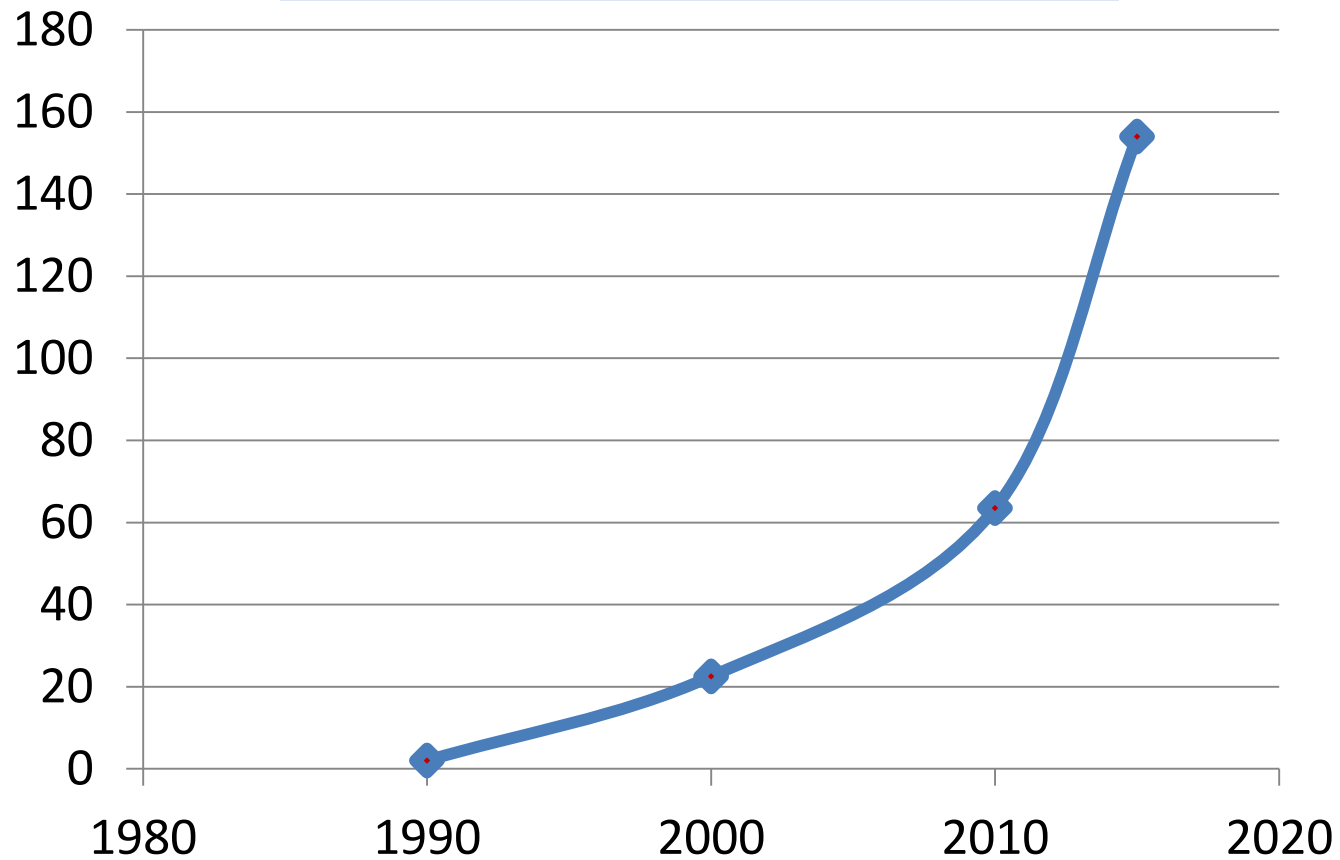
Personal ICT access, Sweden. Population 18-w years old



Heavy increase in overall ICT time use

ICT time use at home.
Sweden, pop. aged 20-29 years

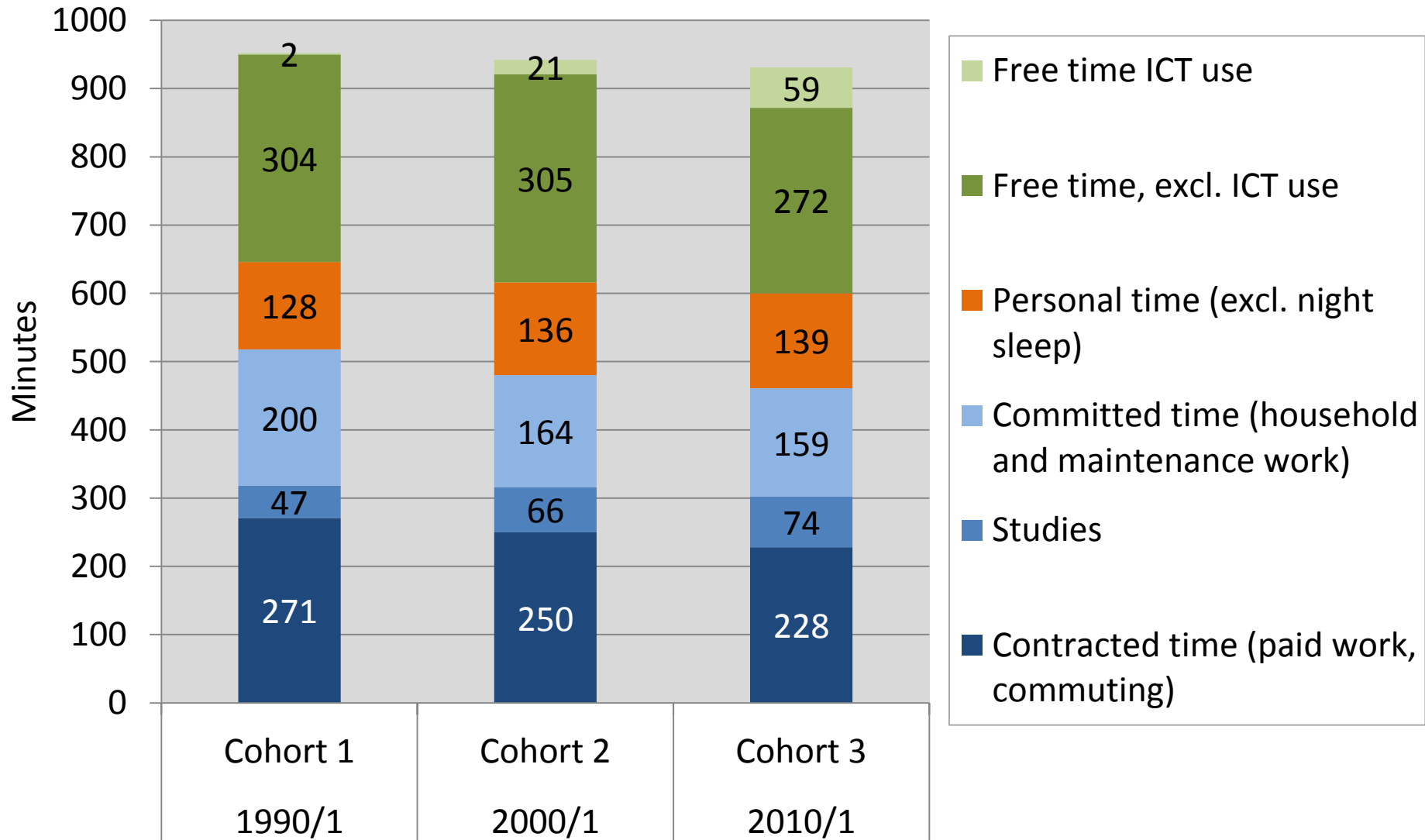
Minutes/day



Trends in Time Use

Comparison: Young adults cohorts (20–29 years old) in 1991, 2001 and 2011

(minutes per day; mean values).



Questions

1. How does **heavy** ICT use influence on young people's use of time and place?

Does extensive ICT use imply, e.g.:

- *Less time for outdoor activity*
- *Less socializing with others irl*
- *Less travel*
- *More time at home*
- *Less night sleep*

Extensive study: National Time Use Survey data.

2. How do patterns of use change in the **mobile** era?

In-depth study: Case study data.

Part 1 Data and Method

Data: Swedish National Time Use Survey 2010/11 (Statistics Sweden)

Sample: Young people aged 15-24 years old . N=262

Time-use diaries: Two days (weekday, weekend)

Activities: Self-reported, coded into 120 activities;

Incl. ICT use = “private computer use” and “Internet use”

Analysis: Comparing *heavy*, *medium* and *light* ICT users

Covariate analysis based on estimated marginal means.

Controlling for background factors (gender, age, family status, occupation, income, and living region).

Results: bivariate comparison

Response to digitalization not homogenous

	Light users	Medium users	Heavy users
ICT use classification	0–10 min	10–90 min	≥90 min
Share	36.6%	30.9%	32.4%
ICT use Weekday (mean)	2 min	47 min	199 min
Weekend (mean)	1 min	53 min	218 min

- **Large differences in ICT time.** Contradict expectations of young people as a homogenous group of ‘digital natives’

Also

- Heavy use is still **gendered** - men clearly overrepresented
- Heavy use more common among the **youngest** (i.e. 15–19 years old), **students**, those **living alone**, and **low-income** people.
- Heavy ICT dominated by computer **games** and **information seeking** –
Medium use: information seeking and social media

Results

Private ICT time use highly elastic to available free time - on weekdays

Weekdays (Mon-Fri)				Difference between groups
Activities	Light users (1)	Medium users (2)	Heavy users (3)	
ICT use, private, total	4	50	194	1 < 2, 3***, 2 < 3***
Paid work, excl. commuting	143	114	85	1 > 3*
Free time, total	335	316	440	1, 2 < 3***
F-test, ***p < .001, **p < .01, *p < .05				

On **weekdays**: private ICT use is highly **elastic**.

- The more time available for free-time activities, the more time online.

On **weekends**: ICT use is **prioritized** differently.

- No differences in free-time availability between the groups. Heavy users spend 3.5 hours ICTs at home, medium users 1 hour, and light users 4 min average per day.

Heavy private ICT use is linked to certain *time priority* shifts

On weekends

Heavy use associates with comparatively/significantly:

Less time spent on

- sports and outdoor recreation
- leisure travel
- socializing offline
- watching TV

More time spent on

- night-time sleep

On weekdays

- Observed differences between user groups significantly reduced
- Negative association between private ICT use and time spent on sports, outdoor activities, and leisure travel persists.

Heavy private ICT use is linked to certain *socio-spatial priority* shifts

Heavy ICT users spend

- **more time** at home
- **more time** performing offline activities alone (particularly on weekdays)
- **less time** travelling (particularly on weekends)

WHAT HAS HAPPENED SINCE 2010?

- ***Shift towards smart mobile platforms*** – widespread and taken for granted (96% of 16–25-year-olds in Sweden have smartphones)
- ***Assumptions about changing patterns of ICT use***
 - ... *from* stationary and home based *to* temporally and spatially dispersed (anytime/where)
 - ... *from* time –consuming leisure activity *to* continuously ongoing
 - ... *from* distinct foreground *to* background activity
- ***Methodological challenges*** – increasingly difficult study from a time-use perspective (always on, frequent, momentary, integrated)

Part 2: CASE STUDY OF YOUNG PEOPLE

Sample: 18 high-school students (age 17-18), Gothenburg, Sweden
Data collected 2016

Time-geographic diaries (3 days):

- Foreground activity (online and offline)
- Background activity (online)
- Activity combinations
- Time and duration of activity
- Place of activity
- Social context (alone/together with family/friends)

Analysis

- Patterns of ICT-use, group level
- Trajectories, individual level

In-depth interviews (50-70 min):

- Practices and meanings of ICT use
- Time-use strategies
- Perceived Tensions

FOREGROUND AND BACKGROUND ICT-USE

	Fore-ground activity* (n = 317)	Back-ground activity* (n = 533)
Total time online		
Time per person and day	4.7 hours	6.7 hours
Share of waking time	28.4%	40.8%
Type of online contact	<i>Minutes/ person and day</i>	<i>Minutes/ person and day</i>
Social contact		
<i>Conversation (voice, Skype)</i>	5	11
<i>SMS, email</i>	3	43
<i>Social media</i>	48	248
Information		
<i>Info. – personal interest</i>	11	3
<i>Info. – news, traffic, weather</i>	2	5
<i>Info. – school</i>	11	10
Schoolwork	23	0
Shopping, booking tickets, payment	1	5
Entertainment		
<i>Music</i>	9	62
<i>Film clips</i>	8	4
<i>Films, series</i>	116	9
<i>Games</i>	32	4

Mobile ICT use – a ***dominant foreground activity***

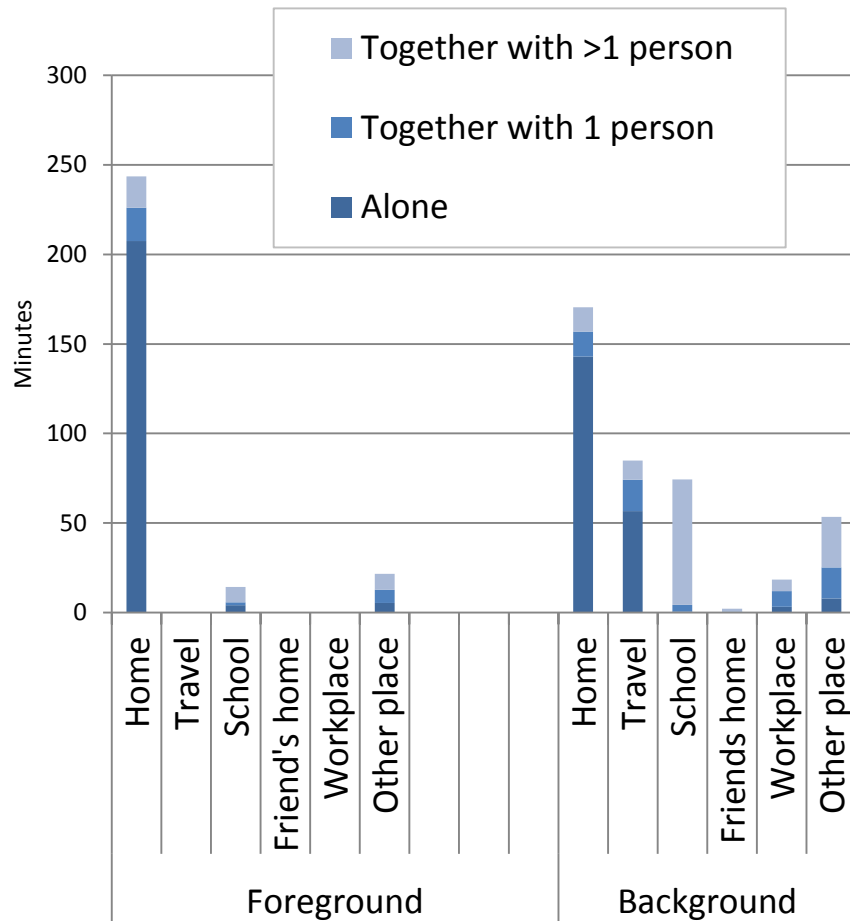
- 4,5 hours/day - social media, tv-series, entertainment, gaming

Mobile ICT use also ***ongoing in background***

- 7 hours/day combined with ICT background
- Dominated by online social contact among friends

Background not only intensified but ***active and intervening*** in foreground activities

LOCATION AND SOCIAL CONTEXT OF ONLINE ACTIVITY



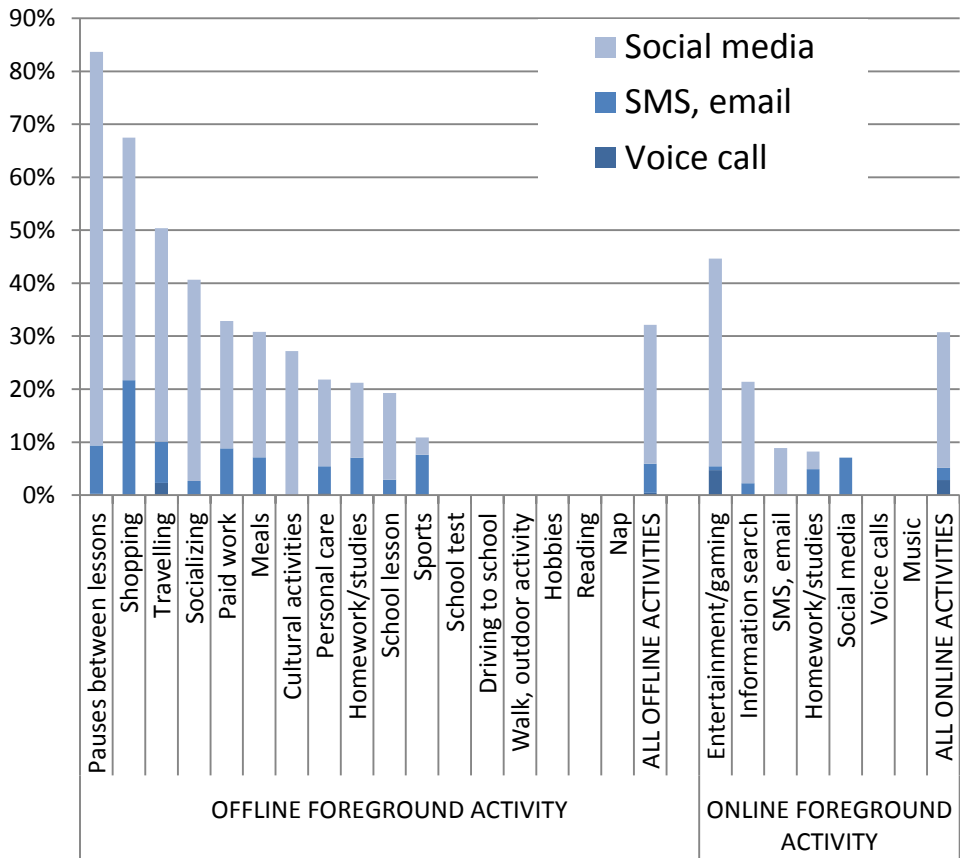
Foreground online activity

- Home-based/stationary, also when on mobile platforms
- Largely performed 'alone' (80%)

Background online activity

- Home-based *and* 'mobile' (in school, third places, on buses and trams)
- 50% performed when with other people (offline)

ACTIVITY COMBINATIONS



Background online social contact:

- Often combined with 'elastic' foreground activity (movement, entertainment, pauses and 'in-between' activities)
- Also intervenes in 'less elastic' foreground activity (offline socializing, school lessons, homework, dinner times)

Multiple online/offline contexts with splitting demands for attention

Conclusions and future research

Basic patterns of *foreground* ICT use remain

- Still time-consuming, solitary, home-based activity
- Questions of leisure time priority, sedentary behaviour, loneliness, outdoor activity and travel still important to address in future research
- Measurable using conventional time-use methods/data

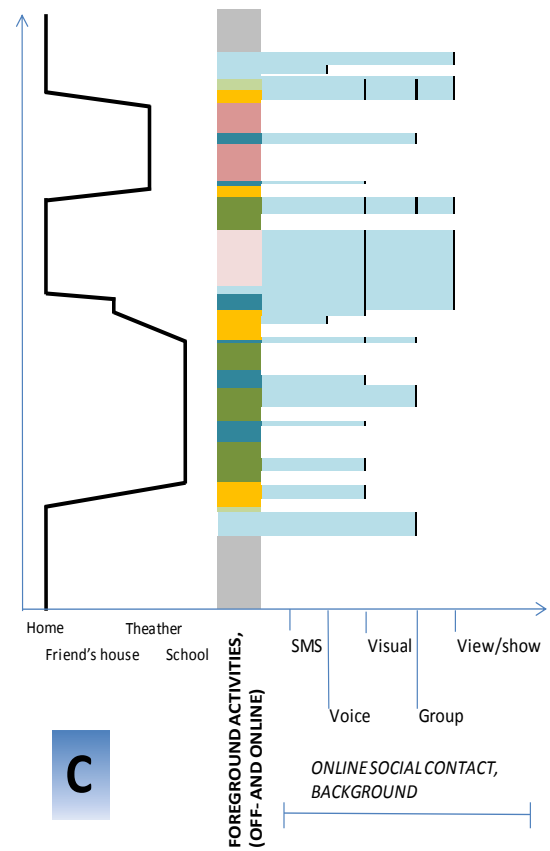
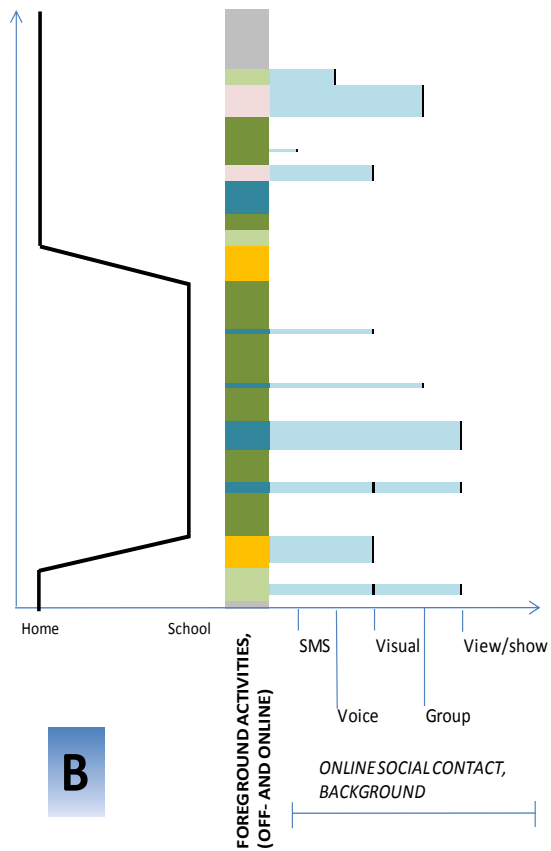
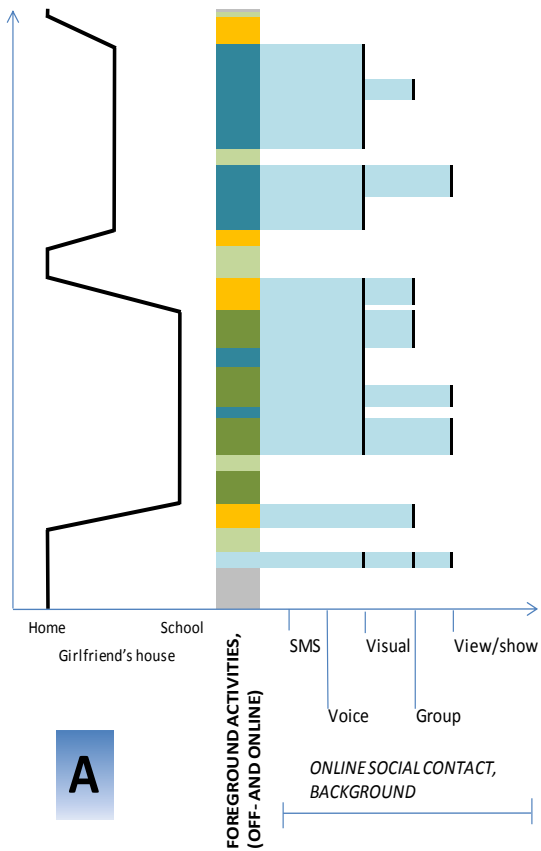
Background ICT use – the big change and challenge

- Adding new layers of simultaneous online background that call for attention and that are active and intervening
- New types of time-use implications – e.g. as regards interweaving, ambivalence and friction/conflict of co-located and mediated contexts
- Need to elaborate on time-use approaches/methods

Thank you!

Publications:

- Thulin E. & Vilhelmson, B. (*manus.*) More at home, more alone? Youth, digital media and the everyday use of time.
- Thulin. E. & Vilhelmson, B. (2018) Bringing the background to the fore: A time geographic study of mobile ICT use in everyday life. (Ed.) Ellegård, K. *Time-Geography in the Global Context: An Anthology*. Routledge, UK
- Vilhelmson B, Elldér E, & Thulin, E (2018) What did we do when the Internet wasn't around? Variation in free-time activities among three young-adult cohorts from 1990/1991, 2000/2001, and 2010/2011. *New Media & Society*. 20(8) 2898–2916.
- Thulin, E (2018) Always on my mind: How smartphones are transforming social contact among young Swedes, *YOUNG*, 26(5): 465–483
- Vilhelmson, B, Thulin, E & Elldér E (2017) Where does time spent on the internet come from? How ICT use influences daily activities. *Information, Communication & Society*, 20(2): 250-263



- Schoolwork
- Meals, personal care
- Travelling
- Socializing (offline)
- Online social contact
- Cultural activity
- Watching Online series
- Sleeping

Comparing cohorts

Young adults, 20-29 years in 1991, 2001 and 2011. Sweden

Overall finding:

- Time online increases 1 hour on average (2 hours among heavy users) 1991-2011

Where did that hour come from?

- Increases in free time availability (increased “time richness”)
- Reduced offline time spending
 - ✓ Socially together with other people
 - ✓ Reading books and papers
 - ✓ Hobbiesamong time rich as well as time poor

Other important observations:

- More activities increasingly performed alone
- No changes in time use:
 - ✓ Outdoor physical activity; offline entertainment, cultural activities, voluntary work
 - ✓ Time spent in-home and out-of-home
 - ✓ Time spent on travel (yet decreased among heavy users)
 - ✓ TV-watching (even increased among time rich)