



time-pieces

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New developments in time technology – projects, data, computing and services

MEASURING SMARTER – TIME-USE DATA COLLECTED BY SMARTPHONES

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Multifunctional time use registration

We live in a rapidly changing world in which people are using smartphones all the time, for sending text messages, being on Facebook, tweeting and retweeting, checking train tables, using GPS and as well for calling. Smartphone applications (“apps”) allow us to set up survey research in a completely different way. Especially for registering time use, a mobile application may prove useful. This has many advantages because smartphone users have (almost) permanently access to this device, so respondents can report (more easily) their activities at multiple times per day, instead of using a paper diary in traditional time-use research. Additionally, smartphones enable to collect complementary information, such as exact location (by GPS), how people feel at random moments during the day (i.e. experience sampling), what short-term activities they do throughout the day (by pop-up questions such as about social media use), or collecting ‘passive’ data which can provide insight into how individuals use smartphones (e.g. for communicating with others). Even more interesting is that all these different types of information can be combined to give a full overview of the respondent’s time use and well-being. In this way, smartphones are not simply a replacement for the traditional paper and pencil time use diaries, but a ‘multifunctional tool’ to combine the old method with new data sources which would not be possible without smartphones (Link et al. 2014).

In the most recent guidelines for global time use research of UNECE (2013) attention is drawn to the use of new technologies in time use studies. It is expected that in the coming years, data collection for time use studies will be done more frequently through the web and more specifically through the use of smartphones and their aforementioned additional applications that a smartphone offers. Although there has been recently some scholarly attention to the possible use of smartphones in time-use research, the number of studies which actually implement such a smartphone measurement to evaluate its benefits and drawbacks is still low.

Exploring smartphones as a future measurement instrument – A pilot study

Already in 2011 The Netherlands Institute for Social Research (SCP) and CentERdata at Tilburg University jointly started with experiments to collect time-use data by smartphones. An app was specifically designed for this purpose in which we followed as much as possible the Harmonised European Time Use Surveys (HETUS) guidelines (Eurostat, 2009). Meaning that respondents were asked to fill their activities in the app on a week- and weekend day, in fixed ten minutes slots for one main and one side-activity as well as who they were with during these activities. One main difference with the HETUS guidelines was the choice not to fill in the activities of the respondents in their own words, but to use a hierarchically ranked category list with a tree structure of overall and sub-categories based on the HETUS categories. In this case the respondents did not have to type every activity in the small screens on their phone; however it was always possible for the respondent to type the activity in their own words if the respondent could not find the appropriate category. Thus, this registration method can be considered a so-called 'light' diary which gives a broad overview of the time allocation, rather than detailed insight in specific activities which are lower in the tree structure.

This pilot study was evaluated positively regarding the technical software development and tests, as well as the willingness of respondents to participate, their response quality and the ease with which even inexperienced persons were able to use the smartphone app (for more information, see Sonck and Fernee 2013; Fernee and Sonck 2013). One of the disadvantages of this study was the small number of participants and that this group was not representative for the Dutch population.

Implementation of the app among a representative group

Because of the overall positive evaluation of the pilot, the smartphone app was implemented in a larger survey. Data were collected from a random selection of the LISS-panel, which is representative for the Dutch public aged 16 years and older. At the time of the study roughly about 61 percent of the Dutch population owned a smartphone¹. To minimize a possible selection effect in the participation between those owning and those not owning a smartphone, people without a smartphone could borrow one. In order to be as similar as possible to the data collected by the traditional time use survey in the Netherlands (2011/12), data were collected for an

¹ <http://statline.cbs.nl/StatWeb/publication/?DM=SLNL&PA=71098ned&D1=33,58&D2=0&D3=a&HDR=G1,T&STB=G2&VW=T>

entire year (2012/13). The data collection finished in September 2013 in which ultimately around 1200 respondents participated.

With this data it is possible to compare the smartphone data collection in more methodological detail with the traditional Dutch time use survey using a paper diary. Furthermore it provides a better understanding of differences between experienced and inexperienced smartphone users. Finally additional functionalities of the smartphone survey enable us to address additional research questions about various topics (well-being, feelings of time pressure, mobility, social media use, etc). In particular, the combination of the different types of data collected using the smartphones may give us a more complete picture of respondent's time-use and well-being. These issues are currently under study by the Netherlands Institute for Social Research.

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TIME IS RUNNING DIFFERENTLY ON THE INTERNET

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Despite the fact that time is an important psychosocial construct by which we organize our daily lives, we do not often think about it. Lack of this reflection is characteristic for the modern world, dominated by features such as speed, agility, flexibility and multitasking, reflecting the popular maxims “time is money” or “do not stop time by hands”. Undoubtedly, modernity provides an acceleration which we can achieve by new technologies like GSM and the Internet, imposing “the tyranny of moment” on us (Eriksen, 2003). The increasing number of people owning smartphones, tablets, netbooks, as well as the accessibility of the internet makes the practices of sharing networks in public places (buses, cafes, universities) more common. In this context, we have a question - what kind of influence the new technologies have exerted?

The authors of the article, based on review of literature and data, develop a thesis that Internet is changing the individual and social perception of time. In order to prove this thesis, we present a new temporal phenomenon, important from the sociological and psychological point of view. In our article, we want to show how the Internet changes people's general concept of time. In this contribution, we only want to signal what content will come in the middle.

Internet proved to be a truly revolutionary invention from the point of view of the social perception of time (Castells, 2007; Dolata, 2006; Eriksen, 2003). Firstly, geographic distances lose their importance. Thanks to the Internet, it is possible to communicate synchronously and exchange information between significant numbers of people separated by thousands of miles. Secondly, the Internet has led to the “colonization of time” (Dolata, 2006), abolishing the distinction for both leisure and work time and transparent division between family, friends and work. Therefore, today we live in eternal present (Tarkowska, 2010). Eriksen (2003) and Bertman (1998) highlight the dominance of the “now” and the culture of the present.

The spread of the Internet has led to the separation of time and space (Szpunar, 2008). Transmission of messages, words and information carries on regardless of geographical barriers at very low cost. Moreover, classical division on the sender and the recipient now is not so important, because the recipient can become the sender at the same time (and vice versa). Examples include social networks, forums etc. Virtual community is thus characterized by a lack of hierarchical structure (Doktorowicz, 2004). The fact that everyone can communicate at the same time is leading to disturbances in the sense of temporal-physical distance.

Another temporal phenomenon is time compression (Barney, 2008). Time compression refers to the ability to perform multiple tasks at the same time. The international study “World Internet Project Poland” (2012) showed that 68% of Internet users spend time in the network performing more than one activity. This multi-tasking is especially characteristic among the younger generation. Jung (2001) notes that the intensification of the time was made possible by miniaturization and the mobility of technical devices such as tablets, netbooks, smartphones etc. For example, while traveling by train, it is possible to connect to the Internet, make a commercial transaction, send an e-mail, eat a sandwich and talk on a cell phone. Paradoxically, on the one hand, new technologies lead to time saving. On the other hand, its increasing importance in our everyday life is time-consuming (Bedyńska, Sędek, 2010).

What is more, time compression concerns reducing the amount of time for each activity. For example, today we can contact with another person or fill out job duties much faster. There are also new forms of activities, carried out by the Internet, such as e-shopping and e-learning, which are possible to do without leaving home. In the “culture of speed” (Virilio, 1993) the division of past, present and future disappears, because ideas can be immediately put into practice with a single e-mail or Skype conversation.

With reference to the research of virtual gamers, “flow phenomenon” is defined as a specific state of time on the Internet (Csikszentmihalyi, 1990). Holbrook (1994; Chou & Ting, 2003) describes the three qualities that provide the game with the power of “possession” of our time.

Firstly, a game is an activity that we initiate voluntarily, usually in the safe comfort of your home, cutting off from the hustle and bustle of everyday problems (Chou & Ting, 2003). In this way, the game enters our private lives. This activity is performed only for pleasure, without consequences, without the participation of others and care for them. Secondly, the game requires an active approach from the player (not passive, like watching TV) and maximizing his focus on attention, almost becoming an “entry in its center”. Thirdly, the game has a real value in itself, because the satisfaction and joy felt by the player are a direct consequence of contact with game. Virtual world is so fascinating that it devours more and more time. Importantly, the most common video games are multi-level. Gamers have a lot of “bonuses” and “extra lives”. They can exist forever. Eternity and infinity are not possible in the real world where time flows linearly and seems to be finished.

Is the distortion of time still persisting after the game session? Luthman et al. (2009) evaluated PC gamer’s passage for defined lengths of time (e.g. 10 seconds, 60 seconds) before the game starts and after its completion. It turned out that after the game session participants’ stretches of time were judged less accurately (e.g. 10 seconds were signaled after about 12 seconds). Before, the game estimates were much closer to the objective over time. For some players, the game can be a cause permanent distortion of time and have adverse effects on the safety in the real world (Wood et al., 2007; Luthman et al., 2009). Many activities of daily living, such as driving and using machines, require reflexes. Delayed reaction of the driver or mechanic can be dramatic.

Esser and Witting (1997; Luthman et al., 2009) have proven that the participants of their experiments lose a sense of time during the game. Many of them use certain strategies to avoid loss of control over the game, for example by setting an alarm clock. Online survey showed that most associated with the loss of sense of time are high complexity of the plot, “multi-level” game character, getting high scores and a large number of logged-in users. Many players have a problem with controlling the time spent playing, as demonstrated Rau et al. (2006; Luthman et al., 2009). Most respondents could not tear themselves away from their favorite games without intervention from the outside. Chen et al. (2000; Chou and Ting, 2003) proved that players often do not know how to refrain from spending long hours on the network because they do not want to give up the pleasure of being in cyberspace. Researchers argue that computer games are one of activities which are able to induce the “flow” state which may cause pathology in the form of addiction.

Chou and Ting (2003) conducted a study which explored how the experience of “flow” contributes to the dependence of playing in computer games. The researchers asked participants numerous questions about addictions (e.g. “When I’m not playing on the computer, I’m unhappy” or “Playing computer games is the most important thing in my life”) and about experience of “flow” state in the game (items relating to the distortion of perception of time: “During the game, time passes very quickly to me”, “During the game I’m losing a lot of time”, “During the game I was unaware of the passage of time”). Results of this study show that the main reason

for repeating the game session is the state of experiencing the maximum concentration on the experience and change the perception of time.

Young (2003) believes that the most characteristic symptom of “flow” while playing computer games is the change in the perception of time. According to the researchers, the player who spent many hours in front of a screen may correspond to only few minutes in his subjective perception. Moreover, limiting any external influences on the game time usually result in conflict with the environment and closing in on itself.

Previous studies have shown that computer game session causes deformities in the perception of time. However, types of computer games (verbal vs. skill) have not been tested so far, as well as the cognitive-motivational states that could explain this effect. The study can be considered a game of solitaire adventure game or reading text on your computer. Then it can be a subjective assessment of the passage of 60 seconds after the game session. In addition, respondents can complete the questionnaire involvement in the currently performed activity (e.g. Csíkszentmihály, 1990).

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A ‘QUEER’ OMISSION – WHAT TIME USE SURVEYS MIGHT GAIN FROM ASKING DIARISTS ABOUT SEXUALITY

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The field of time use research historically has had an undercurrent of promoting social justice. This dimension dates back to early explorations in the field, from Maud Pember-Reeves use of diaries kept by working class women and George Bevens and use of diaries kept by working class men to debunk myths suggesting the poor lead idle lives without long hours of paid work. Pember Reeves (1913), Leeds (1917), Kneeland (1929), Reid (1934), and others demonstrated that women make significant contributions to the economic output of nations while undertaking unpaid domestic work which official national statistics and economic policies ignored. While it has taken decades for these early observations to gain widespread recognition, recent United Nations reports highlight the importance of collecting surveys of people’s daily routines to promote gender equality, both by making women’s full economic contributions visible and to formulate other gender equality promotion policies (United Nations 2005; UNECE 2013; Calderón Magaña 2013).

While gender equality for women has featured prominently in the time use research literature, the field offers potential to support a range of social justice agendas, as a basic principal of time use surveys is that the all behaviours of all peoples matter. As time use surveys collect data on activities that have received little research or policy attention, and as these surveys collect diaries from of groups with limited social status, some activities which - and people who - have been invisible in policy debates become visible. This principal is not complete. Time use survey sampling methodology tends to leave out institutionalised people and populations whose transient accommodation makes them difficult to sample (homeless people and refugees, among others). Some minority populations, including people with minority sexual orientations and gender identities whom we consider here, have been sampled, but not specifically identified, making analysis of their time use challenging.

Why presence in surveys and statistics matters

Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) people recently have made significant legal breakthroughs in some countries, though in others, anti-homosexuality laws and attitudes have become more severe. In those countries where the legal status of LGBTI people has improved, change remains contested and controversial. Few social surveys and official statistics identify LGBTI people as a separate community of research and policy interest. Such large-scale social surveys that are available for LGBTI research mostly concentrate on same-sex couples, and more of these surveys have been collected in the USA than elsewhere (Fisher and Suen 2014).

Visibility in official statistics matters. Public policies cannot cater for unknown needs. Evaluation of the success or failure of programmes requires reliable data on changes in those communities that policies aim to assist. Appearing in routine population statistics confirms regularisation of the legal and social standing of minority groups. Just as recognising the value of the unpaid domestic work of women has played a role in improving the status of women, presence in official population figures will have a role in improving the quality of life of LGBTI people. Carpenter and Gates (2008) reflect a growing number of voices who “strongly urge researchers to more routinely include direct measures of sexual orientation identification on surveys”, not only by collecting whole household age/sex matrixes from large samples, but also asking more specific details about partners and partnership history.

Tracking changes in daily behaviour over time for cohorts of LGBTI people and their majority sexuality contemporaries can reveal the extent to which each of these groups uses the same social spaces at the same (or different) times, the range of regular activities different groups undertake, and whether some groups make compromises (taking longer routes to reach the same destinations or more complicated sequences of behaviours to achieve the same outcomes) to manage the same range of daily experiences. Degrees of different use of spaces, performance of activities and arrangements of days can reflect the degree of social integration (or lack of integration) of any minority population.

Time diary surveys in particular offer the additional possibility of informing the way minority communities which have been ostracised alter their daily routines as they gain social acceptance. As even in their most quantitative and reduced form, time diaries collect narratives, the narrative component of time use surveys offers elements of resonance with the qualitative sexuality studies. On-going experiments with GPS and related devices tracking the location of diarists will enable future time use research to consider the more precise location of activities (in height and well as longitude and latitude), which may prove more useful if measuring differences in uses of social spaces.

Same-sex couples in time use surveys

Some time use surveys offer the potential to explore the daily activities of same-sex couples. The United States Census and Current Population Surveys collect data on couples in households, including collecting the age and sex of people who identify themselves as being married or living together as a couple. The American Time Use Survey samples a subset of the CPS. Similar possibilities arise in surveys following the Harmonised European Time Use Surveys guidelines, and collect detailed matrixes of household members mapping relationships between members.

As yet, the capacity to identify same-sex couples is incomplete. No currently released national sample time use survey explicitly asks participants about their sexuality (though this will change in 2015). As this research is in the early phase, we adopt a basic definition - people reported to be of the same sex and in a couple on household grid information. We find 415 such people completed diaries (Fisher and Suen 2014) included in the Multinational Time Use Study

archive (Fisher and Gershuny 2013 summarise this dataset). We accept that this crude approach may capture some data errors where the sex of one person is recorded in error. Only eight of the over 60 surveys in the MTUS appear to include any same-sex couples, and of these, only three have sufficient numbers of couples for independent analysis – but prospects for analysis do exist for Spain (HETUS surveys) and the USA (ATUS). We explore the Spanish surveys in separate research (where we compare the time use of both partners for the same days). In this paper, we concentrate on people living same-sex couples in the USA, where only one of the people in these couples completed one 24-hour diary.

Table 1 displays basic descriptive statistics comparing same-sex and mixed-sex couples in the American Time Use Survey (MTUS version for 2003-2010). People in same-sex couples are slightly younger, a lower proportion of them live in rural areas, and generally they have greater social and monetary capital resources. This most basic comparison suggests sampling bias which we cannot wholly eliminate in modelling. As we have no reliable statistics for the total same-sex couple population, precisely disentangling this potential bias is difficult.

Table 1
Basic demographic characteristics of diarists in same-sex and mixed-sex couples in the American time use survey (multinational time use survey version)

Basic demographic characteristics of diarists	Same-sex couples	Mixed-sex couples
Diarists who are women (%)	49.2	48.2
Mean age of diarists	42	46
Diarists who live in a rural area (%)	7.9	19.3
Couple lives with a child aged <5 years (%)	13.2	27.1
Diarist is a citizen of the USA (%)	94.7	91.3
Diarists working full-time (%)	77.1	58.9
Diarist holds managerial or professional job (%)	39.3	26.5
Household in top 25% of income distribution (%)	46.4	33.4
Diarist has post-secondary education (%)	78.9	62.4
Household rents accommodation (%)	24.1	16.3

Source: ATUS (MTUS version for 2003-2010), own calculations.

Given the long history of limiting access to adoption and fertility treatment and the very recent legal recognition of same-sex couples in many US states, the lower percentage of couples living with young children is not surprising. Qualitative research comparing same-sex and mixed-sex couples suggests that the absence of established cultural narratives defining roles for domestic arrangements means same-sex couples enjoy more freedom to experiment and invent their roles (Shipman and Smart 2006; Smart 2008). The possibility that more people in LGBTI couples work full time may reflect a more widespread interest in domestic equality (some literature on this topic summarised in Fisher and Suen 2014). Other stark differences in the basic distributions are more difficult to explain, though higher levels of education in same-sex compared to mixed-sex couples has been observed before (Shipman and Smart 2006; Smart 2008). It may

well be that Lesbians and Gay men with more social standing (reflected by the employment status, income and education) may feel more able to openly acknowledge their sexuality and to choose to form partnerships in keeping with their identities.

The way LGBTI people structure daily routines is a new area in the time use research field. In a small-scale survey of parents, Chan et. al. (1998) observed no difference in the time investments Lesbian and straight parents devote to raising children. While conducting in-depth interviews with ageing gay men in the UK, Suen (2012) recorded many instances where these men recalled needing to use caution with the timing certain activities as well as taking care in choosing the place of some common-place activities, like eating out, in order to avoid trouble.

The MTUS harmonises time use surveys post-collection. This process involves translating original activity codes into a set of 69 harmonised time use activities (Fisher and Gershuny 2013). As a point of initial exploration, we selected those ATUS (MTUS version) diarists who completed good quality diaries and who live in a couple, and ran simple 1-way Anova tests of time in all 69 of these activities comparing the mean daily minutes spent in each activity by same-sex and mixed-sex couples; then by same-sex couples with and without children, and mixed-sex couples with and without children (full tables in Fisher and Suen 2014). Of these 69 activities, only 21 showed significant to marginally insignificant variation in total minutes spent in each activity per day across the two then the four couple groups (Fisher and Suen 2014), though as we have very small samples across pooled years of the American Time Use Survey of same-sex couples, these numbers are not necessarily meaningful. We collapsed these 21 activities into 15 categories for further analysis.

The MTUS offers blunt location information as such detail is not readily harmonised. We tested three additional basic concepts regarding location and timing in the same way as we initially examined the 69 activity categories – total minutes of leisure time in the day spent with the spouse or partner; total minutes per day away from home, and total minutes per day away from home after 18:00. In simple one-way Anova tests, the four groups of couples appear to vary, but again as the numbers of same-sex couples are small, these variations are not necessarily meaningful.

We then followed up the total minutes per day spent in these 18 groups of activities which appeared to show some differences using a simple OLS model². We opt for this basic model, in part as this paper offers an initial overview of what might be possible in this area, and in part as the numbers of same-sex couples is too small to permit many more sophisticated approaches. While there are some diarists in couples who have no time recorded in one or more of these activities, as people do not undertake every potential activity every day, these 0 observations

² controlling for sex, age, age2, citizenship, whether the diarist undertook post-secondary education; living in a household in the highest 25% income band, holding employment in a managerial or professional job, working full-time or not, living with a child aged <13 in the household, renting accommodation, living in rural area or not, and (appears to) live in a same-sex couple.

reflect real behaviours over the 24-hour diary observation windows. More details and results appear in Fisher and Suen 2014.

Once some consideration is made for basic person and household demographics, same-sex couples appear to undertake only four of these activities differently from mixed-sex couples. Same-sex couples spent roughly four extra minutes per day walking dogs; 10 more minutes per day using the internet as well as going out to cinemas, theatres or concerts; and half an hour additional time visiting and in conversation with others. The extra internet and cultural performance time may reflect what appears to be a sample bias, as those same-sex couples with more income, education and higher status jobs may well be over-represented. We suspect that the higher social time same-sex couples enjoy, both with pets and with other people, may prove noteworthy in follow-up research.

The non-significant results, however, also have meaning. We replicate the finding of Chan et al. (1998) that same-sex couples make the same time investments in their children. As time with children, time contributing to wider social good through organisational and voluntary activities, and time in religious activities reflect some of the contested ground in policy debates over the legal rights and social status of people with minority sexualities, finding no difference between same-sex and mixed-sex couples behaviour in such activities reinforces arguments that protecting the civil rights of minorities poses no threat to the majority population.

Wider considerations and future research potential

Such contemporary concerns as work-life balance or the impact of behaviour on the environment matter for people of minority as well as majority sexualities. Minority groups can face particular circumstances requiring policy attention, and while this is not always the case, policy research should consider the prospects for such differences. As visibility in social statistics affects the representation of minority social groups in policies promoting fairness of opportunities and access to services, time use surveys have particular relevance for collecting some of this baseline social data.

The huge gap in knowledge relates to minority sexuality people who are not in couples. This case has a parallel in the wider time use research literature, as comparatively few articles consider the time use of single people separately, and many which do are relatively recent.

The 2015 Canadian General Social Survey, which will include a 24-hour mixed-method interview time diary, also will ask all participants a basic question about their sexuality (Fisher and Suen 2014). This question will add clarity (or perhaps open new research investigations) into the number of same-sex couples and the suitability of using household matrices to find such couples. More intriguingly, this question will identify some LBTBI people who are not in couples, albeit using categories covering a limited range or orientations. Though not all people will feel empowered or inclined to answer this question, leaving some concern with sampling bias, this question nevertheless represents an advance.

Having a larger sample of non-straight diarists holds out the prospect for more detailed consideration of the timing of activities and structuring of days. The daily routines of LGBTI people merit further research. We hope more future surveys may build on the 2015 Canadian example.

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Book notes

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Website: <https://halshs.archives-ouvertes.fr/halshs-00869371>

Languages Available: French

This book draws on expertise from researchers in history, town planning, sociology, geography, physics and computing to map changing social and economic network structures in time and space in France. This book draws on ideas developed by PhD and younger researchers mixed with the experience of those more established in their fields.

Calderón, C. M. (ed.)
Redistributing care – The policy challenge (2013)

Contributing Authors: Castillo, A. F., Galván, E., Jain, D., Lamaute-Brisson, N., Navarro, F. M., Ponce, L. O., Fernández, P. P., Enríquez, C. R., Salvador, S., Sauma, P. and A. V. Rodríguez

Publisher: CEPAL

ISBN: 978-92-1-021070-6

English Website: http://www.cepal.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/7/51137/P51137.xml&xsl=/publicaciones/ficha-i.xsl&base=/publicaciones/top_publicaciones-i.xsl

Spanish Website:

<http://www.cepal.org/publicaciones/xml/6/50976/cue101Redistribuirelcuidado.pdf>

Languages Available: English, Spanish

In 2007, the United Nations Economic Commission for Latin America (CEPAL) sponsored a regional conference on Women in Latin America and the Caribbean to plan how to improve the visibility of women's contributions to national output. This conference stressed the importance of measuring care labour. This report assesses progress since that meeting, and highlights the latest debates on the definition and measurement of care. The report also discusses how time use information has influenced public policies in the region (though some of the time use surveys discussed here collected extended stylised estimate reports rather than time diaries or other continuous measures).

Cloin, M.

An overview of time use – Results from the Netherlands time use survey (2013)

Publisher: Sociaal en Cultureel Planbureau
ISBN: 978-9-037-70670-3

Website:

http://www.scp.nl/Publicaties/Alle_publicaties/Publicaties_2013/Met_het_oog_op_de_tijd

Languages Available: Dutch

This report offers an overview of daily life in the Netherlands in 2012. The report also maps changes in activity patterns in the Netherlands, primarily contrasting the 2006 survey with the 2011-12 survey, as both these surveys followed the HETUS guidelines, and collected diaries during a 12 month period from all members of sampled households aged 10 and older for one week day and one weekend day. The report also reflects trends since 1975, though the every 5 years early surveys conducted prior to the HETUS surveys collected a one-week diary from one person aged 12 and older per household during October only.

Corti, L., Van den Eynden, V., Bishop, L. and M. Woollard
Managing and sharing research data – A guide to good practice (2014)

Publisher: Sage Publications
ISBN: 978-1-446-26725-7

Website:

<http://www.uk.sagepub.com/books/9781446267264>

Languages Available: English

Practitioners advance the cause of time use research by making data available for continued analysis and reuse. This book gives excellent step by step advice on how to prepare data for archiving. The book covers the range of processes involved, from how to plan for archiving from the initial design of data collection through the deposit of data. The book also offers guidance on publishing and citing data resources, promoting collaborative research, and ethical issues associated with data reuse.

Csikszentmihalyi, M.
Applications of Flow in Human Development and Education (2014)

Publisher: Springer eBooks

ISBN: 978-9-401-79094-9

Website:

http://www.springer.com/psychology/book/978-94-017-9093-2?wt_mc=Alerts.NBA.Sep-14_WEST_16829205

Languages Available: English

Mihaly Csikszentmihalyi, one of the pioneers of the Experience Sampling Method alternative measurement of time use, primarily examines education systems in this book. Nevertheless, he also addresses a number of topics relevant to time use research, including the influence of daily routines, family life, leisure patterns, and the organisation of learning activities. The volume mixes more theoretical sections with more policy-focussed sections that suggest how education can inspire people to reduce their environmental footprint and adopt

lifestyles associated with higher well-being and enjoyment.

Dolan, P.

Happiness by design – Finding pleasure and purpose in everyday life (2014)

Publisher: Allen Lane

ISBN: 978-0-241-00310-7

Website:

<http://www.amazon.co.uk/Happiness-Design-Finding-Pleasure-Everyday/dp/0241003105/>

Languages Available: English

This book proposes that the structure of daily life contributes to the overall happiness (or unhappiness). The book reviews a range of social science and medical research, and makes suggestions for behaviour patterns that are more likely to enhance happiness. The book make some review of time use literature, but also offers analysis based on related behaviour research.

Duff, K.

The secret life of sleep (2014)

Publisher: Atria Books/Beyond Words

ISBN: 978-1-582-70468-5

Languages Available: English

This popular science book explores the concept of sleep. Duff explains the biological functions of sleep, and a range of ways in which people address sleep challenges caused by stress, illness, biological changes associated with the life cycle, and work environments (from more extreme cases, such as astronauts, through more frequent

cases, like shift workers). The book also examines cultural expectations and practices associated with sleep.

Eydal, B. E. and T. Rostgaard (eds.)

Fatherhood in the nordic welfare states – Comparing care policies and practice (2014)

Contributing Authors: Andersen, A. F., Bloksgaard, L., Brandht, B., Duvander, A. Z., Eydal, G. E., Friðriksdóttir, H., Gíslason, I. G., Gornick, J., Haataja, A., Hakovirta, M., Johansson, M., Kvande, E., Lammi-Taskula, J., Lausten, M., Nielsen, S. B., Nordenmark, M., O'Brien, M., Ottosen, M. H., Pääkkönen, H., Reincke, K., Rostgaard, T., Salmi, M., Westerling, A. and M. Ylikännö

Publisher: Sarah Crichton Books

ISBN: 978-03-742-2844-6

Website:

http://www.scp.nl/english/Publications/Publications_by_year/Publications_2013/Using_smartphones_in_survey_research_a_multifunctional_tool

Languages Available: English

The volume explores changes in the ways fathers participate in supporting and caring for their children in Denmark, Finland, Iceland, Norway and Sweden. While some chapters do not address time use topics directly, the whole book contributes to understanding how the combination of the Nordic style of welfare provision and social policies promoting gender equality shape fathers' daily activities. A number of the au-

thors are regular contributors to the collection and analysis of time use surveys.

Meers, S. and J. Strober
Getting to 50/50 – How working parents can have it all (2014)

Publisher: Piatkus

ISBN: 978-0-349-40236-9

Languages Available: English

This is one of two major popular literature books exploring the work-life balance of working parents written by working mothers released in 2014. Meers and Strober argue that the key to achieving this balance and a happy family life is for women and men to share the paid-work, child care and housework tasks equitably. They propose a number of steps, including strategies for negotiating with employers to "baby boot camp" for first-time fathers, to foster the attitude shifts required to encourage their vision of happy families meeting the challenges of the contemporary world.

Palestinian Central Bureau of Statistics
Main findings of time use survey, 2012/2013 (2014)

Publisher: Palestinian Central Bureau of Statistics

Website:

http://www.pcbs.gov.ps/pcbs_2012/Publications.aspx

Languages Available: Arabic, English

This report details basic time use patterns and summarises the methodology of the second national time use survey conducted

in the Palestinian authority. The survey sampled nearly 6,000 households and collected diaries from household members aged 10 and older between October 2012 and September 2013. The report covers the challenges for collecting official statistics in the circumstances faced by this community.

Schulte, B. and T. Gilbert
Overwhelmed – Work, love and play – When no one has the time (2014)

Publisher: Brilliance Audio

Languages Available: English

This narrated version of Washington Post journalist and mother Brigid Schulte exploration of the work-life balance struggle which working parents in the USA face is the first time use book released in an audio format, and the narration offers an engaging experience. As part of her research, Schulte attended the 2010 IATUR conference in Paris, where she interviewed a number of prominent authors in the field. She offers a hilarious account of dining out with John Robinson and Jonathan Gershuny. Though aimed at a general rather than an academic audience, this book does address the current debates in the time use literature relating to gendered divisions of work and the structure of contemporary work and family life patterns in the USA and European countries.

Todesco, L.

What men don't do – Unpaid family work in contemporary societies (2014)

Publisher Carocci

ISBN: 978-8-843-07044-2

Website:

http://www.pcbs.gov.ps/pcbs_2012/Publications.aspx

Languages Available: Italian

This book explores the roles the balance of paid and unpaid labour within households plays in wider social power structures. The book considers how public policies and welfare systems have potential to reshape the behaviour of men and women in households, and how changes in the gender balance within households in turn could reshape societies.

United Nations Economic Commission for Europe

Guidelines for harmonizing time-use surveys (2014)

Publisher: United Nations Economic Commission for Europe

Website:

http://www.unece.org/publications/time_use_surveys.html

Languages Available: English

The United Nations Economic Commission for Europe (Geneva, Switzerland) released this major contribution to the time use survey literature shortly after the publication of the last issue of the eIJTUR. These guidelines focus on official reporting of survey results and policy applications using time use data, the most significant of which

include monitoring progress towards gender equality, calculating the full system of national accounts (including unpaid domestic work as well as monetised economic activity), and measuring well-being. The report highlights other policy applications for time use data, and details challenges and opportunities arising for the future collection of such surveys.

Varjonen, J., Hamunen, E. and K. Soinne

Satellite accounts on household production – Eurostat methodology and experiences to apply it (2014)

Publisher: Statistics Finland

ISBN: 978-9-522-44487-5

Website:

http://tilastokeskus.fi/ajk/julkistamiskalenteri/kuvailusivu_fi.html?ID=12368

Languages Available: English

Historically, women's contribution to total goods and services produced in each country has been under-represented as systems of national accounts have failed to include the unpaid work households undertake to produce goods and services consumed by the same households or by households with which people have informal, non-institutionally organised arrangements. Early efforts to expand the production boundary to account for unpaid domestic work concentrated on valuing the labour inputs. This report applies a method refined by a recent Eurostat task force that calculates non-financial accounts using time use survey data, in this case for Finland, which values both the labour inputs and the

service outputs. In addition to revealing the full scale of economic activity in Finland, this report also outlines methodological issues arising from applying the Eurostat methodology.

time-pieces