The potential of smart surveys

Four case studies in the context of the ESS

Session Trusted Smart Surveys
NTTS, March 11, 2021

Annemieke Luiten & Barry Schouten

ESSNET SMART SURVEYS

Motivation for themes and pilots

- Consumption (linked to HBS):
  - Respondent burden;
- Time use (linked to HETUS and other themes):
  - Respondent burden
  - Lends itself very well for modular/plaform approach;
- Health (Linked to EHIS):
  - Measurement error reduction; additional relevant measures
- Living conditions (linked to EU-SILC or Housing surveys):
  - Measurement error reduction; additional relevant measures
  - Well suited for citizen science features;

WP2 PILOTS AND SMART FEATURES




	Consumption	Time use	Health	Living
Device intelligence	YES	YES	YES (if own meter)	Not in this pilot
Public online data	NO	Not in this pilot	Not in this pilot	NO
Personal online data	Bank transactions	NO	YES (personal devices)	Not in this pilot
Big data linkage	NO	NO	Maybe	YES

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ESSNET SMART SURVEYS

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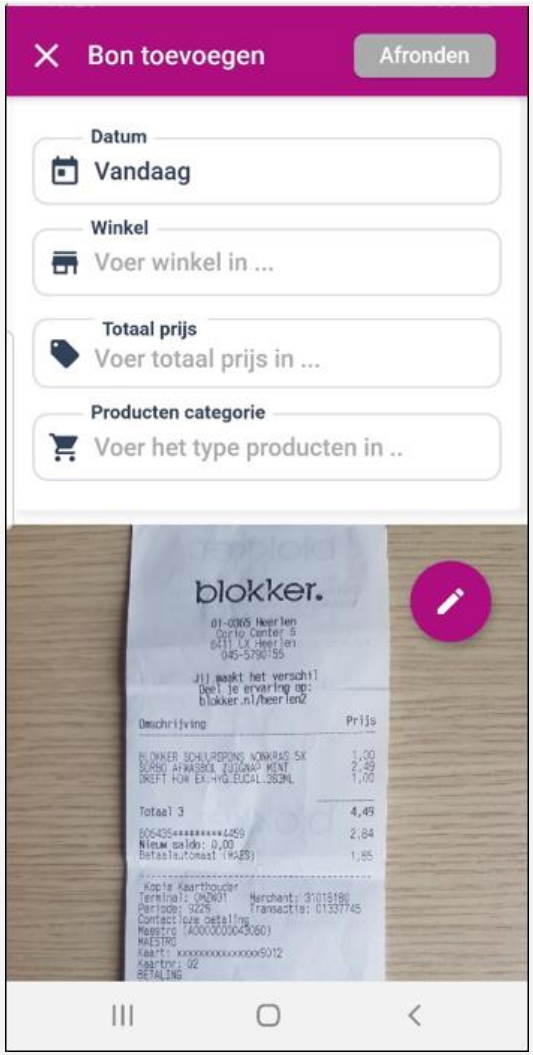
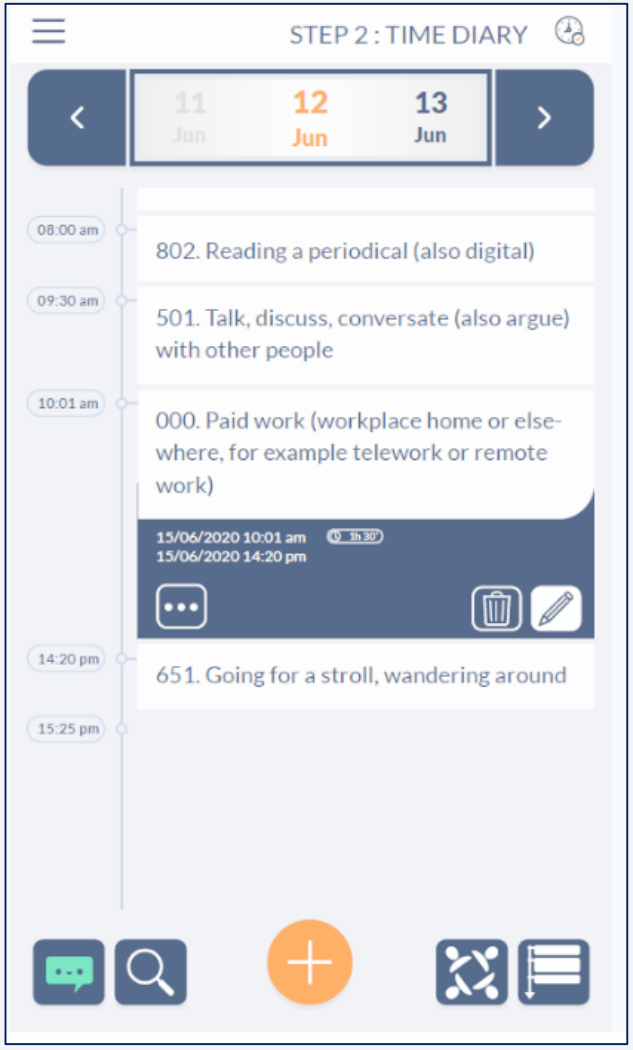
App-based diary studies

- Two main pilots in ESSnet:
  - Time use: MOTUS app
  - Household budget: Household Budget Survey app

- For optimal usefulness in ESS a platform is needed where various features can easiliy be adapted for countries (e.g. language, lists of activities, products, shops)
- Many applications: not only HBS and Time Use, travel, working hours, media use..

- Most promising when:
  - Surveys are burdensome/time consuming or subject to strong measurement error
  - Smart solutions are trusted, accurate and affordable





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ESSNET SMART SURVEYS

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Studies based on sensor systems: Health

Application: activity trackers for measuring physical activity:

- Number of minutes moderate intensive PA
- If 2 days of muscle and bone strenghtening PA p/w
- If 1 day of balance strenghtening PA p/w
- Number of hours sedentary behaviour
- Number of hours sleep

ActivPal

Business case:

Survey: difficult subjective questions on PA; valuable new information on sedentary behaviour

Sensor errors: as yet unknown; Difficult Machine Learning methodology

Respondents: willingness not (yet) high and (as yet) biased.

Sensor systems 2: Living Conditions

Application: IEQ - 9 components of indoor environment in living room and sleeping room (2months)

For pilots we use uHoo air (OTS product)

Business case:

- Survey: objective underpinning of subjective evaluation
- Sensor errors: part of project, but may be questionable in 'cheap' sensors
- Respondents: enthousiastic respondents so far; setting up not too difficult; interesting feedback
- Methodological issues: people change behavior; ethics/privacy

Next steps

- Effective recruitment and motivation strategies
- Trade-offs between active and passive data collection (i.e. respondent burden versus quality versus utility to respondent)
- In-device processing versus in-house processing
- Monitoring of diary-based studies, including in-app paradata
- Ethical and legal boundaries across ESS countries

Thank you for you attention!

Questions?