Investigating the influence of social networks on travel decisions

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Overview

- Research questions
- The data collection
- Challenges and opportunities
- Pre-pilot
- Feedback by participants
- Next steps

Social influence on decisions

AIM: integrating the effects of social influence in choice models

- Can conformity behaviour be originated by comparing own travel behaviour with others'?

- Is there a difference between the effects of comparison with different social circles?

- Are there differences in the susceptibility to influence on long and short-term decisions, or between different types of decisions? Does this partly depend on the decision maker characteristics?

..part of a bigger study

The data collection will also be used for a project looking at different aspects, such as:

- Interrelations between long and short-term decisions
- Interaction between different choices, in particular travel, energy
- In-home activities

The data collection

Understanding the process

In-depth interviews to investigate long term choices, in particular:
- The main triggers of long term choices
- Which elements people consider when they choose
- The interconnections between choices
- The presence of social influence and by whom (if they consider asking someone, if they accept somebody else's decision, if they compromise)

| 1. Qualitative research | → | 2. Name generator and background survey | → | 3. Tracking app |
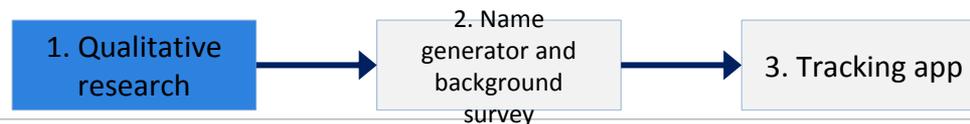
The main survey

Online name generator for the snowball sample
- Socio-demographics of "alters"
- Type of relationship
- Start date of the relationship
- Number of contacts by means of communication

Background survey
- Socio-demographics of individual and family
- Household size and structure
- Travel mode availability and usage
- Energy appliances ownership and usage
- Attitudinal questions (travel, environment, susceptibility to influence on travel choices)

Life course calendar
- Spatial biography
- Means of transport ownership and availability
- Leisure activities history

1. Qualitative research → 2. Name generator and background survey → 3. Tracking app
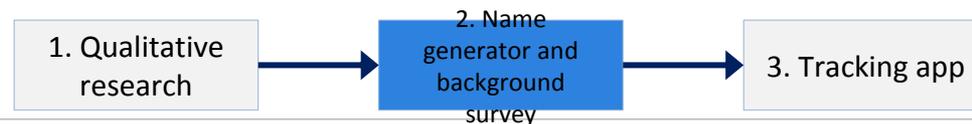
Smartphone app

Tracking of trips via smartphone app. The trips tagged by users with:

1. Purpose
2. Mode
3. Accompanying people (from the NG and others)
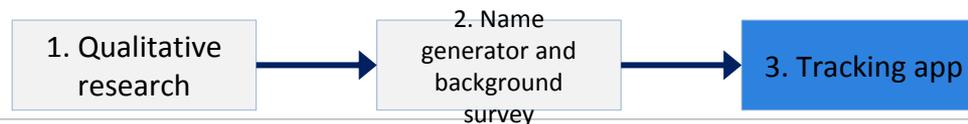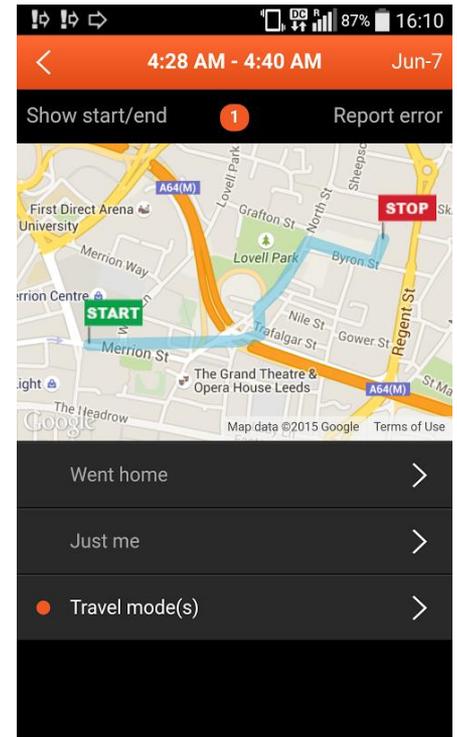
Week 1: Logbook with feedback on own activity
Participants will be able to visualize daily information about their own
- Travel distance by mode
- Calories burned

Week 2: Logbook with social feedback
Participants will visualize their activity levels compared to others' depending on the group they will be assigned to
- Control group
- Comparison with personal network
- Comparison with entire sample

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1. Qualitative
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→
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Pre-pilot

Qualitative interviews

	BF 2003	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Residential location	Parents' home			Student accomm	With flatmates	With flatmates	With partner	With partner	With partner	With partner		With partner		
Triggers of choice				common practice	Chose a house with friends		Joint decision: gradually further from centre: green spaces, less congestion, "we are not city people"							
Education	High school				University									
Triggers of choice					"University was my personal choice"									
Jobs				Job1	Job 2		Job 3 - city centre		Job 4 - city centre		Job 5- University	job 6 - ITS		
Mode ownership/availability	bike				No modes				car in household		car in hh, rented bike	car in hh, bike (after having used Uni bike scheme)		
Triggers of choice	Bought by parents				Non-driver (could not afford car)			Partner's car, only used as passenger				Bought to commute but never used		
Commute mode	bus				walk		mainly bus, sometimes walk				bus (far to walk)	walk (35-40 min)		
Triggers of choice					Short trips							Changes of attitudes: -concern about heath and weight - getting older (more aware) - environmental concern - part of community at work		
Leisure and other purposes mode	bike, walk				Walking, taxi		Mainly walking, partner's car					Car (shopping, leisure), Taxi (going out)		
Triggers of choice							I always liked walking, I would do it if I could					If with friends, no attempt to influence them because of convenience (plus they do not have similar environmental concerns), while try to convince partner to cycle more.		
Holiday main mode					flight			Flight, car, train						
Triggers of choice					"I only see it as a holiday if I fly to some other place. Assumes flight always best option, only checks online Train used if going not too far, because she does not drive so cannot share driving burden									
Attitudes				Open and liberal							Environmental and health concern			
Triggers				"I've always been hanging out with left-winged people concerned about environment and politics, but this did not really reflect in any behaviour						Colleagues at Uni, different environment			

Main survey

The pre-pilot mainly involved PhD and MSc student, with a minority of University employees.
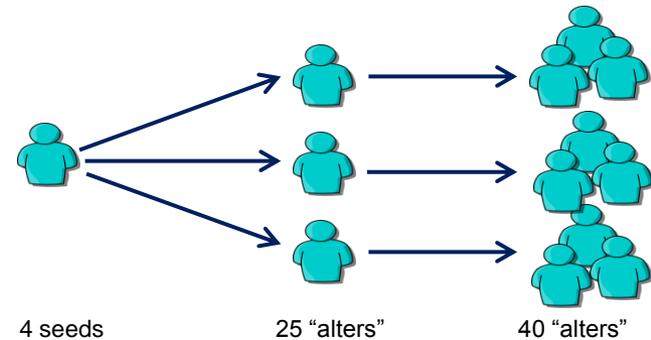
- **Name generator**

6.25 contacts named on average

(min set to 5; 12 fields each contact)

- **Background survey**

Completion time between 14 and 70 minutes (8 responses)

- **Smartphone app tracking**
    - 10 participants
    - 13 days
    - 604 trips (average 60.4 trips, min 21, max 117)
    - On average, people annotated 80% of their trips, with just 1 participant never annotating a trip

4 seeds   25 "alters"   40 "alters"

Feedback from participants

- Name generator
  - Most people found this task difficult (64%) and struggled to understand who they had to name (45%)
  - A minority reported less contact for privacy reasons (27%) or because they found the task too long (18%) and some felt uncomfortable naming their contacts (45%)
- Background survey
  - Most people found it too long (55%) and burdensome
- Tracking app
  - Only 20% enjoyed using the app, and most found it easy to use (64%)
  - Battery drainage was reported as an issue by 55% of participants and 18% turned off localisation to save power.
  - Some people felt uncomfortable about being tracked and 9% turned localisation off for privacy reasons.

Data collection challenges

- Computed response burden = 1626: out of the scale!(Axhausen and Weis 2013)

- Qualitative research: very unstructured and respondent-dependent

- Reduction of long-term decisions survey without giving up any dimension

- Recruitment, data storage and involvement

- Structure of incentives
  - ➢ Several prize draws for the different sections of the survey
  - ➢ RDS for involvement of "alters"

Next steps

- Amendments and improvements to the data collection design

- Pilot in September-October 2015

- Actual data collection during autumn 2015

Thank you!

Any questions, comments, **suggestions**?

Backup – Name generator

The NG is the tool used to collect information on the respondent's social network, and to involve his/her contacts in the study. It has been coded by the University IT department.

Features:

o It assigns a unique ID to respondents and "alters"

o Min 5 – Max 30 contacts can be named

o The invitation e-mails to the "alters" are sent from the user's e-mail address

Backup – Name generator
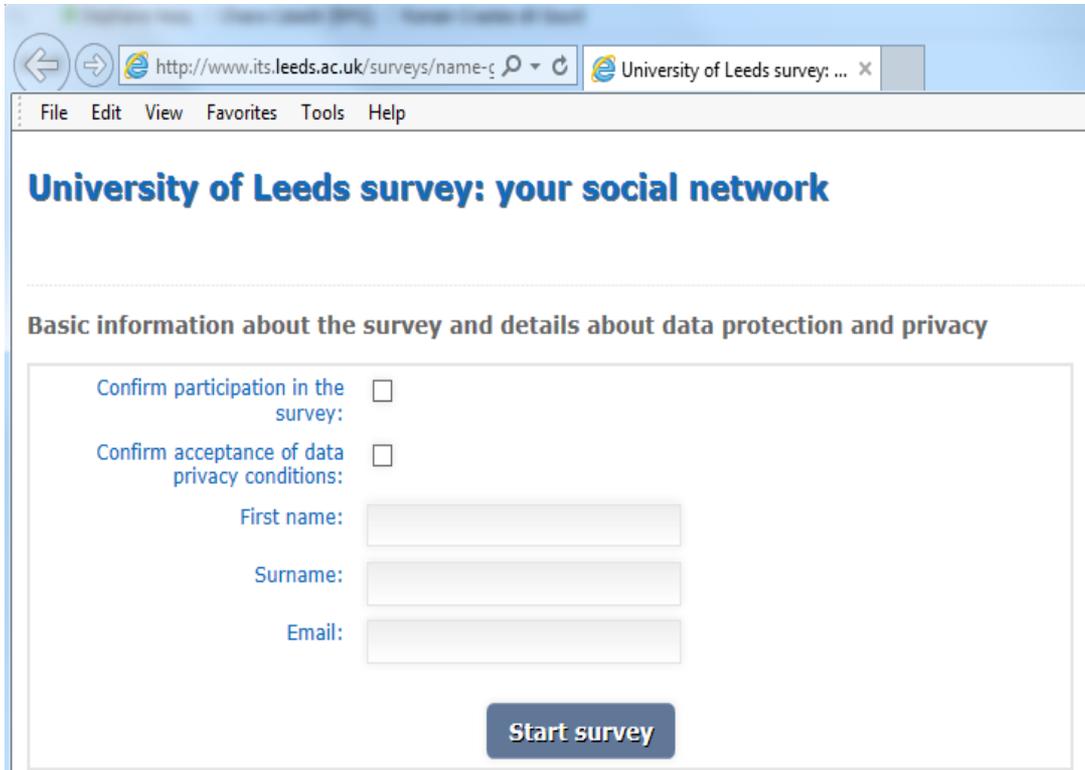
University of Leeds survey: your social network

Please list the people with whom you MAKE PLANS TO SPEND FREE TIME WITH (e.g. sports, holidays, clubs or organised activities, cultural and recreational events)

>> The email addresses you provide here will not be stored and the emails sent out will appear to be sent from your own email address

>> Enter a minimum of five contacts

>> Enter a maximum of thirty contacts

>> You MUST fill out all fields for a contact

#	First name	Surname	Type of relationship (e.g. mother, friend)	Age	Gender	City (+country if not UK)	Year when first met	Number of contacts IN PERSON	Number of contacts BY PHONE (call or text)	Number of contacts BY EMAIL	Number of contacts BY ONLINE SOCIAL NETWORK	E-mail address
1					-			per week / per month / per year	-	-	-	
2					-			-	-	-	-	
3					-			-	-	-	-	
4					-			-	-	-	-	
5					-			-	-	-	-	
6					-			-	-	-	-	
7					-			-	-	-	-	
8					-			-	-	-	-	
9					-			-	-	-	-	
10					-			-	-	-	-	

Add additional contacts   All relevant contacts entered

Backup – Background survey questions

- Socio-demographics and family

- Residential location and related decisions

- Attitudes towards environment, travel, energy, influence

- House type and size

- Energy use and appliances ownership

- Monthly budget

- Income

Backup – Life course calendar dimensions

- Education
- Work history
- Residential locations
- Mode ownership
- Main mode for commuting
- Relationships
- Cohabitation

Backup - Feedback by participants

NAME GENERATOR	Agree (%)	Not agree (%)
I found this task easy	36	64
It was difficult to understand which people I had to name	45	55
It was difficult to understand what "number of contacts" meant	27	73
The task was difficult in general	27	73
Naming my contacts made me feel uncomfortable	45	55
I named a few people because it was too long	18	82
I named a few people because of privacy reasons	27	73
I named all the relevant people	27	73
BACKGROUND SURVEY		
I found this task easy	18	82
I found this task enjoyable	18	82
I found the travel and energy questions too difficult/ burdensome	55	45
I found the life history questions too difficult/ burdensome	45	55
I found the questionnaire too intrusive	18	82
I found the questionnaire too long	55	45
I did not understand parts of the questionnaire/ specific questions	27	73
RMOVE		
I enjoyed using the app	18	82
I found the app intuitive and easy to use	64	36
The app drained my phone battery to a big extent	55	45
The app crashed often (please specify)	36	64
I found the travel surveys burdensome	27	73
I found the travel surveys too intrusive	27	73
I did not feel confortable knowing that my trips were tracked	18	82
I turned off localisation services/my phone to avoid battery drainage caused by the app	18	82
I turned off localisation services/my phone for privacy reasons	9	91
I liked having a record of my trips	36	64