0. Project title, author, version and date

Project: Understanding and predicting the behavioural footprint of older adults in the UK

Author: Thabsheera PK Version: 1 Date: 01/06/22

1. Description of the data

1.1 Type of study

The given data is a diary data with activities recorded for every 10 minutes of the day. Along with the diary data, household interview and individual interview data is available. All these data are used to design and run a time series classification model to predict the behaviour of older adults

1.2 Assessment of existing data

The United Kingdom Time Use Survey, 2014-2015 (UKTUS) is a large-scale household survey that gives data on how people aged 8 years and above in the UK spend their time. The source for the mentioned data is 'uk data service' and the data is publicly available. (Sullivan, O., Gershuny, J. (2021). United Kingdom Time Use Survey, 2014-2015. [data collection]. UK Data Service. SN: 8128, DOI: 10.5255/UKDA-SN-8128-1)

The study provides the time use of individual over on a weekday and a weekend. The time diary provides information about the activities, location, presence of computer or phone, level of enjoyment etc. The questionnaire data provides the information of characteristics of the household and individual such as employment, household type, demographics information etc.

1.2 Types of data

Majority of the data fields are categorical or qualitative data. Since the data is generated from surveys, most of the fields are qualitative such as demographics, employment, activities etc.

1.3 Format and scale of the data

The data is available in spss format, Used R to read and visualise the data. The diary data is available in two data type of data sets, one is the long format where each row is for a household- person- day of the week- time interval. The other format is wide, where each time interval is transposed into columns. Both have the same data of ~4000 households and ~8000 individuals.

The questionnaire data is of the same households and individual but with their characteristics. There are of 4733 records in household data and 11421 in individual data

2. Data collection / generation

2.1 Methodologies for data collection / generation

Since the data is a publicly available UK time use survey for the period of 2014-15, the data collection was effortless. There was only a need to create an account in UK data service website and fill the form stating the purpose of the data.

2.2 Data quality and standards

The data has gone through lot of cleaning up and calibration before getting uploaded to UK data service. Weights have been given to household and individual so that it will be comparable to the entire households and population of UK. Some of the missing data has been replaced by the average values of the existing records or some of them were removed. Currently, there's no duplicate records in the data.

3. Data management, documentation, and curation

3.1 Managing, storing and curating data.

The data, which was publicly available in the UK data service, is downloaded and saved in the local system. The codes and generated small tables are getting backed up in the git hub.

3.2 Metadata standards and data documentation

The meta data and data dictionary for the data is available in the UK data service <u>website</u>. The data dictionary has the information about each column and what the value in that column means.

All the data manipulation that has been done as part of this project is properly commented in the codes and it is easily reproducible. The code changes are timely updated in the git log.

The entire procedure for the project has been properly documented and uploaded as a ReadME file in the github.

4. Data security and confidentiality of potentially disclosive information

4.1 Main risks to data security

The data is masked for the identity, the household number represented by a serial number. This serial number to exact household mapping is not available anywhere publicly, this is only known to the people responsible for the survey. There's no description to understand the individual as well. The field pnum(person number) is considered as individual.

5. Data sharing and access

5.1 Suitability for sharing

The data is suitable for sharing within the organisation in this case it's Newcastle University.

5.2 Discovery by potential users of the research data

The data is saved in the local system, and which is originally a publicly available data, so anyone can download from the UK data service after submitting relevant information.

5.3 Data preservation strategy and standards

The data will be preserved in the local system for the duration of this project

5.4 Restrictions or delays to sharing, with planned actions to limit such restrictions

Not Applicable

6. Responsibilities and Resources

Are there any resources (e.g. storage/ training) that you will require to fulfil the plan?

NO

7. Relevant institutional, departmental or study policies on data sharing and data security

Policy	URL or Reference
Data Management Policy & Procedures	https://www.ncl.ac.uk/media/wwwnclacuk/research/files/ResearchDataManagementPolicy.pdf
Information Security	https://services.ncl.ac.uk/itservice/policies/InformationSecurityPolicy-v2_1.pdf
Other	