Package 'dpu.mobility'

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Type Package

Title Mobility DPU functions

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Description Mobility DPU functions

License Apache2

Imports geosphere

Collate 'geodistance.R' 'mobility.smooth.R' 'mobility.summarize.R'

R topics documented:

`geodistance` *Calculate total distance traveled*

Description

This function uses Haversine formula to calculate the total distance between a number of locations.

Usage

```
geodistance(long, lat, unit = "km")
```

Arguments

long	vector of longitude coordinates; length equal to 'lat'.
lat	vector of lattitude coordinates; length equal to 'long'.
unit	Either "km" or "miles"

Value

Total distance traveled

Author(s)

jeroen

Examples

```
geodistance(c(-74.0064, -118.2430, -74.0064), c(40.7142, 34.0522, 40.7142)) #NY - LA - NY
geodistance(c(-74.0064, -118.2430, -74.0064), c(40.7142, 34.0522, 40.7142), "miles") #NY - L
```

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mobility.smooth *Smoothing mobility data*

Description

A function to "smooth" a vector of mobility classifications, to drop 'outliers'.

Usage

```
mobility.smooth(x, strength = 5)
```

Arguments

x	the vector with modes. Will always be treated as catagorical (don't use with real numbers).
strength	smoothing parameter. Rougly the number of neighbouring days that should be taken into account while smoothing.

Value

the smoothed vector

Author(s)

jeroen

Examples

```
test <- factor(c("drive", "drive", "drive", "walk", "drive", "drive", "drive", "drive", "wal
data.frame(original= test, smoothed = mobility.smooth(test));
```

`mobility.summarize` *Summarize mobility classifications*

Description

Returns counts and proportions for a vector of mobility modes.

Usage

```
mobility.summarize(x)
```

Arguments

`x`	vector of mobility modes

Value

Data frame with summary statistics

Author(s)

jeroen

Examples

```
test <- factor(c("drive", "drive", "drive", "walk", "drive", "drive", "drive", "drive", "wal
mobility.summarize(test);
```