Kenya - Verification of Crowdsourced Crash Reports Survey 2018

World Bank Group

Report generated on: December 8, 2020

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Overview

Identification

ID NUMBER
KEN_2018_VCCR_v01_M

Version

VERSION DESCRIPTION
- v01

Overview

ABSTRACT
The purpose of the 2018 Verification of Crowdsourced Crash Reports survey is to physically verify road traffic crash (RTC) reports that were reported by bystanders in Nairobi, Kenya using Twitter/Ma3Route. Ma3Route is a mobile/web/SMS platform that crowdsources transport data and provides users with information on traffic, RTCs, matatu directions and driving reports. Users post RTC or traffic information to Ma3Route, where Ma3Route then publishes the post on Twitter. In this survey, we sought to verify the accuracy of crowdsourced information as a source of RTC data.

KIND OF DATA
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UNITS OF ANALYSIS
Road traffic crash reports

Coverage

GEOGRAPHIC COVERAGE
Crowdsourced road traffic crash (RTC) reports were verified in Nairobi, Kenya

UNIVERSE
Road traffic crash reports in Nairobi, Kenya

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
World Bank Group	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Development Economics Data Group	DECDG	World Bank	Documentation of the study

DATE OF METADATA PRODUCTION

2020-11-20

DDI DOCUMENT VERSION
Version 01 (November 2020)

DDI DOCUMENT ID
DDI_KEN_2018_VCCR_v01_M_WB

Sampling

No content available

Questionnaires

No content available

Data Collection

Data Collection Dates

Start   **End**   **Cycle**
2018-07-21   2018-09-01   N/A

Data Collection Mode

Other [oth]

Data Collection Notes

The process by which data for the 2018 Verification of Crowdsourced Crash Reports Survey was collected is decribed below:

1. An algorithm scraped tweets from @Ma3Route in real time and used a machine learning algorithm to detect RTC related tweets. When the algorithm detected a RTC tweet, the tweet was sent to a field coordinator for the project. The field coordinator for the project confirmed whether the tweet reported a crash with sufficient location information and, if so, made a request on the Sendy Ltd platform for a driver to go to the RTC location. Sendy Ltd is a Kenyan on-demand logistics startup that offers a marketplace for deliveries and logistics services using a mobile application that connects clients to motorcycle riders and vehicles.
2. Sendy drivers that were a part of this survey (15 drivers) were alerted of the request. A Sendy driver could choose to accept the request, then would travel to the location.
3. Once a Sendy driver arrived at the RTC location, they filled out a short survey verifying the RTC—if there was no RTC nearby, they were instructed to ask a passer-by if one occurred recently. Sendy drivers were instructed to not go near the crash, and to not interfere with any first responders.

Data Collectors

Name	Abbreviation	Affiliation
Sendy Ltd		

Data Processing

No content available

Data Appraisal

No content available

File Description

Variable List

crash_verification

Content	
Cases	73
Variable(s)	4
Structure	Type: Keys: ()
Version	
Producer	
Missing Data	

Variables

ID	NAME	LABEL	TYPE	FORMAT	QUESTION
V1	observe_crash	Do you observe a crash at the specified location?	discrete	numeric	Do you observe a crash at the specified location?
V2	why_no_crash	Why is there no crash?	discrete	numeric	Why is there no crash?
V3	datetime_tweet	Date/time of tweet (East Africa time)	contin	numeric	Date/time of tweet (East Africa time)
V4	suggested_landmark	Suggested landmark to travel to, provided by algorithm	discrete	character	Suggested landmark to travel to, provided by algorithm

Do you observe a crash at the specified location? (observe_crash)
File: crash_verification

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 0-1

Valid cases: 73
Invalid: 0

Literal question

Do you observe a crash at the specified location?

Post question

If No, go to next question.

Why is there no crash? (why_no_crash)
File: crash_verification

Overview

Type: Discrete
Format: numeric
Width: 1
Decimals: 0
Range: 1-5

Valid cases: 49
Invalid: 24

Literal question

Why is there no crash?

Date/time of tweet (East Africa time) (datetime_tweet)
File: crash_verification

Overview

Type: Continuous
Format: numeric
Width: 13
Decimals: 0
Range: 1847793509000-1851412044000

Valid cases: 73
Invalid: 0
Minimum: 1847793509000
Maximum: 1851412044000
Mean: 1849372936041.1

Literal question

Date/time of tweet (East Africa time)

Suggested landmark to travel to, provided by algorithm (suggested_landmark)
File: crash_verification

Overview

Type: Discrete
Format: character
Width: 17

Valid cases: 73
Invalid: 0

Literal question

Suggested landmark to travel to, provided by algorithm

Documentation

Questionnaires

Documentation - 2018 Verification of Crowdsourced Crash Reports Survey

Title	Documentation - 2018 Verification of Crowdsourced Crash Reports Survey
Author(s)	World Bank
Country	Kenya
Language	English
Filename	Doc/Questionnaires/documentation.pdf