Traveler

a road safety ITS technology

MINISTERE DES TRANSPORTS
MINISTRY OF TRANSPORT

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Overview

- Perspective: Road insecurity and smart mobile (3G) penetration
- Traveler
  - Functionality: practical aspects
  - Technology: GPS and sensor system
- Benefits
  - RTI for prevention and response
  - Provides travel behaviour data
  - Enforcement toll
- Other potentials

Perspective: Road insecurity and opportunities for smart mobile (android) technologies

- Developing countries like Cameroon account for 90% of road accidents
  - Mostly young people below 30years old.
  - Speeding remains the principal cause

- Rapid increase in the use of 3G mobile in affected countries
  - Most young people and transport actors posses smart handsets.
    - Android OS makes over 90% of smart mobile in Cameroon
  - Internet mobile increasingly cheaper

TraVeler

- Smart mobile road safety application
  - Android version available on Google play
  - Apple version under construction

  - Minimal hardware requirements
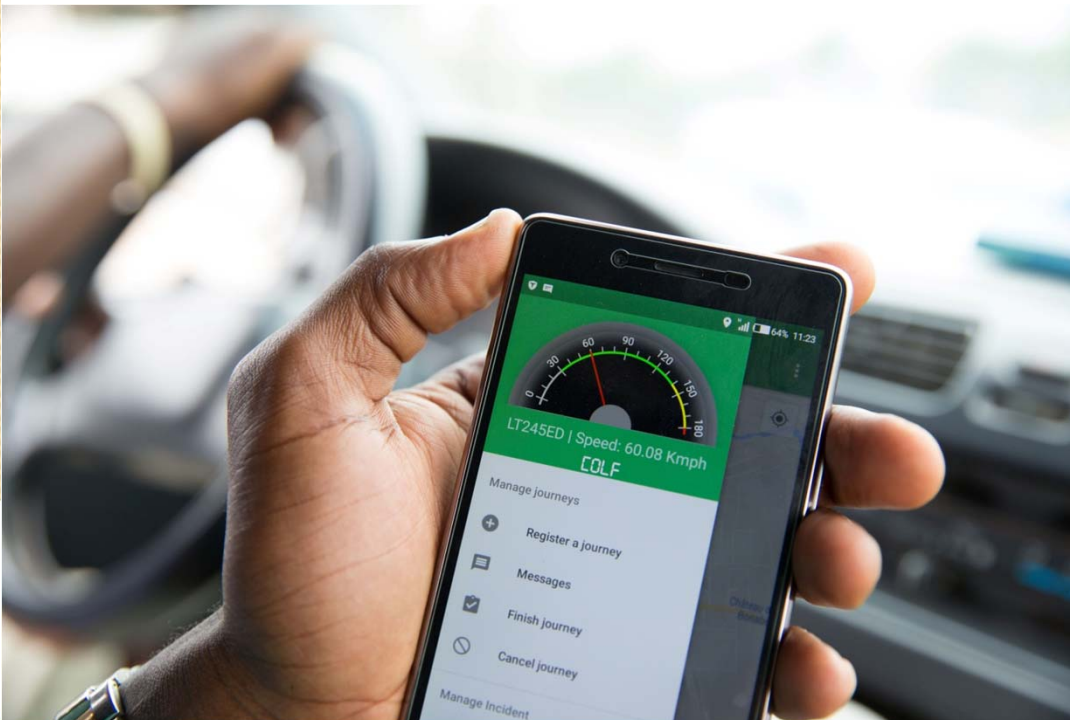   - Install in low budget smart phones

TraVeler

Startup Developers

- Young Cameroonian engineers

http://traveler.cm/

Key Features

- Journey register
- Speed counter
- Travel tracker
- Collision/impact detector
- Automatic sms alert
- First aid guide

TraVeler

- ## How it works
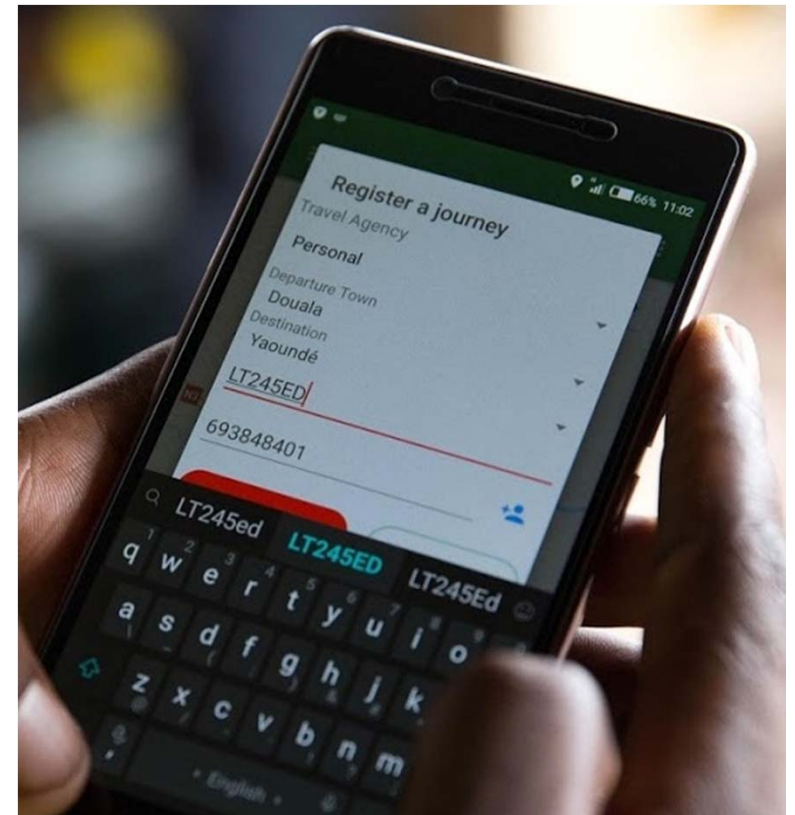 - ○ Install application and create an account

    User name _____
    Email address _____
    Phone number _____

  - ○ Easy journey register
    Select/Enter
    - ○ Transport mode
    - ○ Origin - destination
    - ○ Vehicle registration
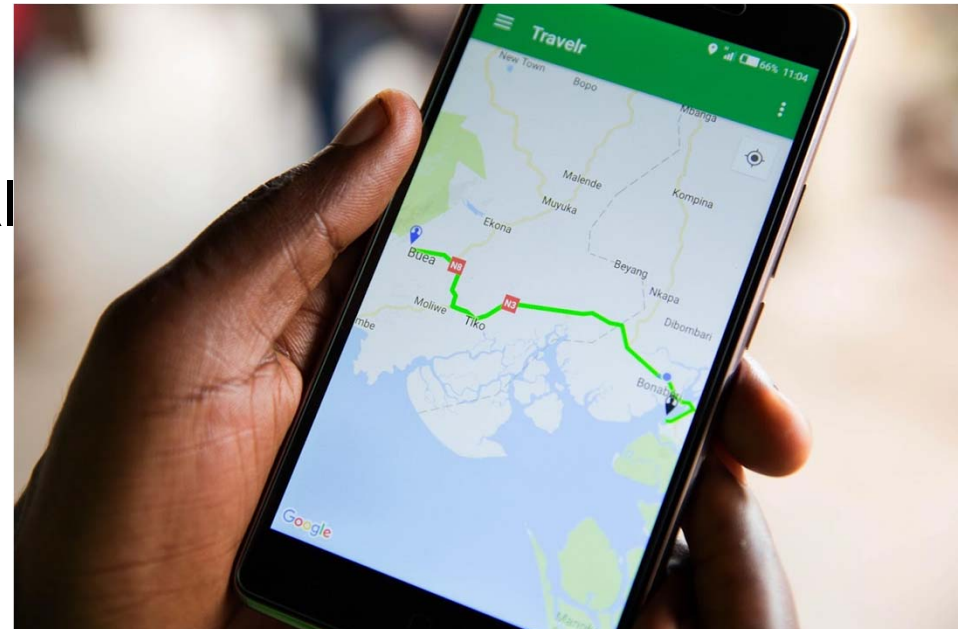   - ○ Emergencies contact telephone numbers

TraVeler Accident prevention

Speed management

- Alerts users onboard an over speeding vehicle
- Behavioural change effect on drivers

- Speed enforcement: Real time information transfer to authorities
- Black spot identification: GPS vs accident data

TraVeler Post-crash response

Impact detection

- GPS and sensor technology
  - Ultra fast/sensitive impact analyser (airbag reflex)
  - Can distinguish between severity of impact (injury)
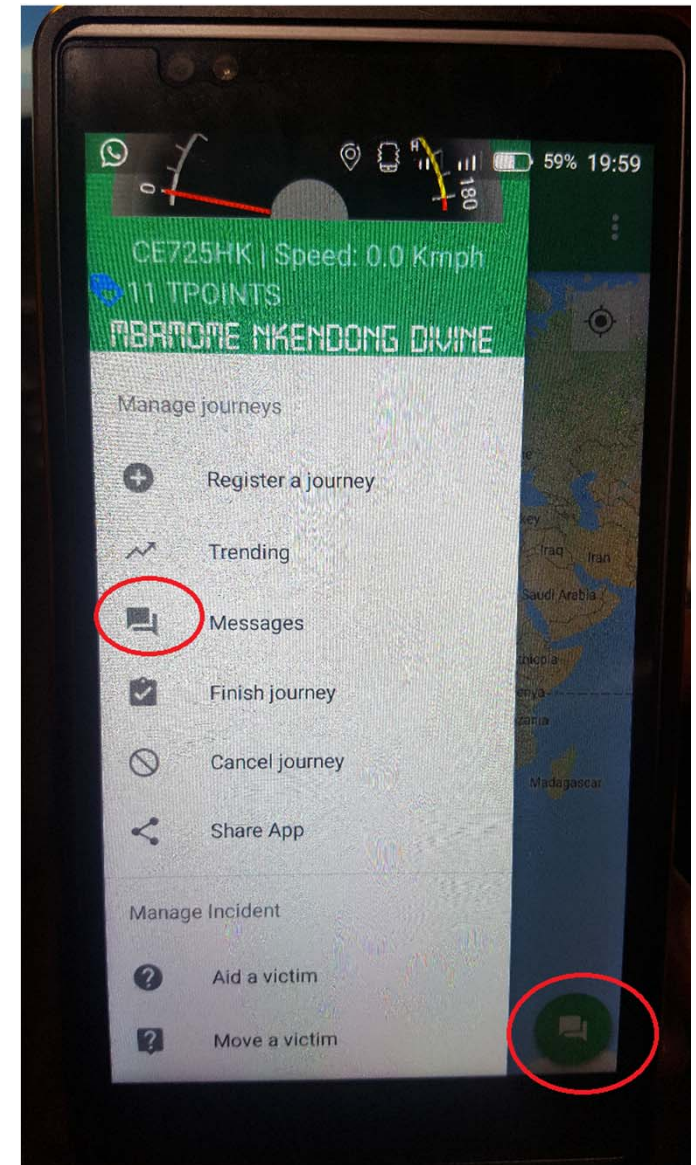 - Correction factor for false alarm (eg phone dropping)

TraVeler Post-crash response

Automatic emergency alert

- Nearby medical facilities / hospitals
- Road safety authorities
- Emergency contacts
- Preferred medical facility (purported severity of injury)

User triggered emergency alert

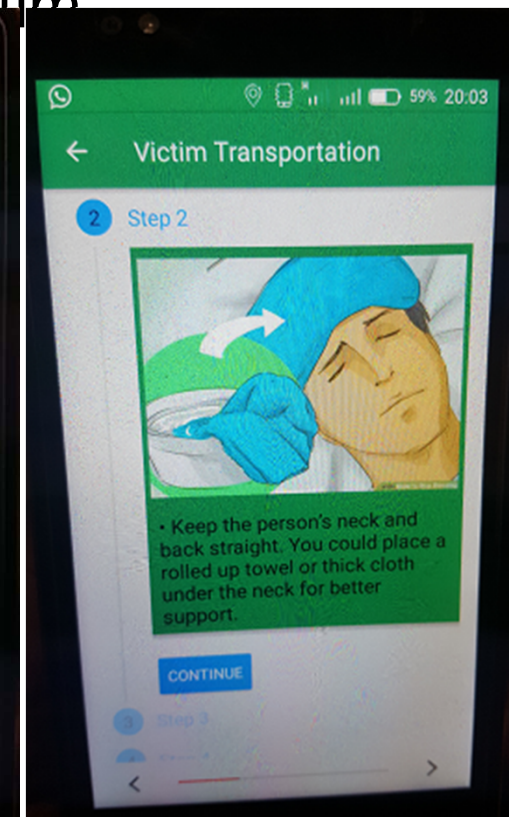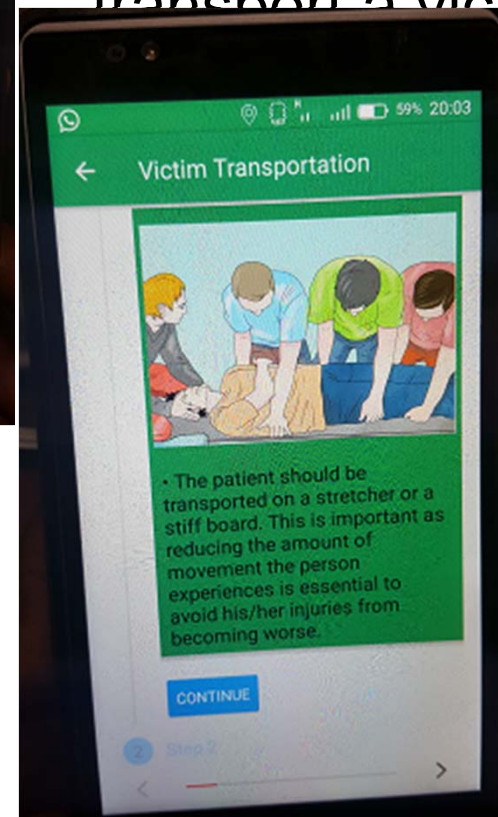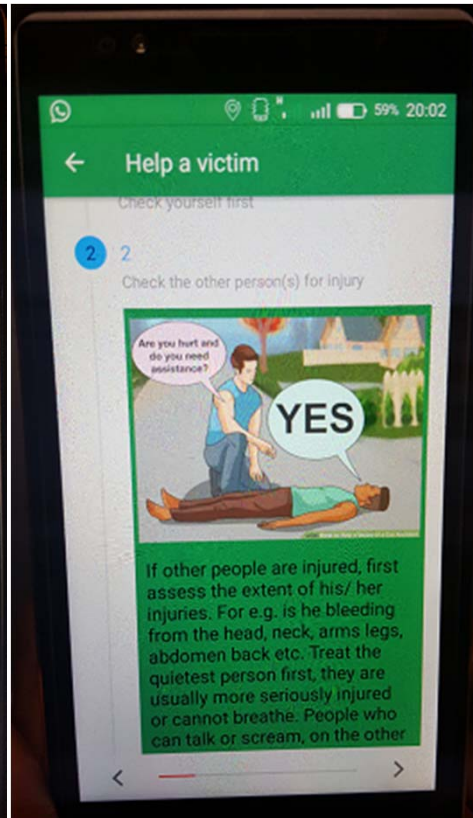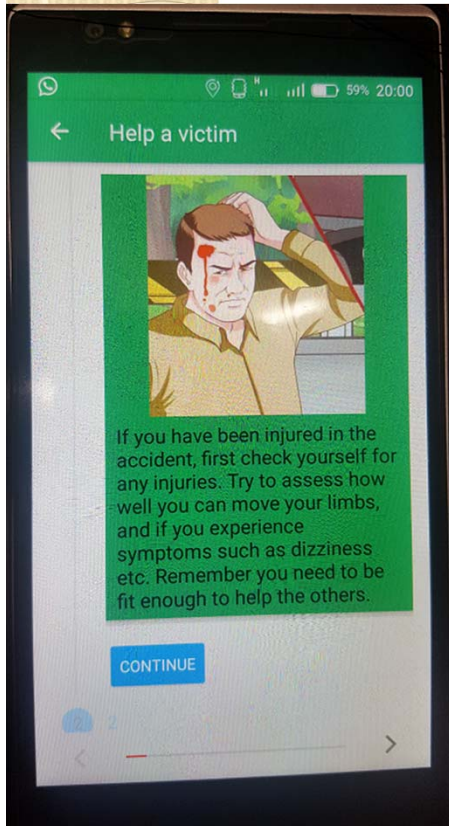- By initiating an "accident" report in the system

First aid tips (manage incident)

- 10 steps drill on first aid
- How to move or transport a victim

Applications in the Ministry of Transport

Integration with other onboard GPS systems

- Immobilise or reduce vehicle speed from control centre
- Reinforce existing GPS devices

Removal of obstacles on the highway

- Raod users can alert MINT of obstacles using the system message service
- MINT automatically determines the location of the obstacle and deploys the appropriate tow truck

Future potentials

Justice implementation

- Transporters can be mandated to equip & connect their fleet
- Records can serve as evidence in criminal investigation procedure

Traffic management

- To determine optimal speed of road sections
- To develop a travel diary (data collection opportunities)

future potential

- **Promote public transportation**
  - To provide security for public transport users
    - Verification of driver and/or vehicle information
  - Bus tracking
    - Urban bus information system can be incorporated
- **Road safety**
  - Driver fatigue
    - As a log book for commercial drivers
  - Accident analysis
  - Research

Thank you