

SmartMoving: an application for pedestrians with reduced mobility

Authors:

- Fatecha M.
- Aquino N.
- Paniagua J.
- Cernuzzi L.
- Fauvety P.
- Chenu R.
- Gonzalez M.
- Romero D.

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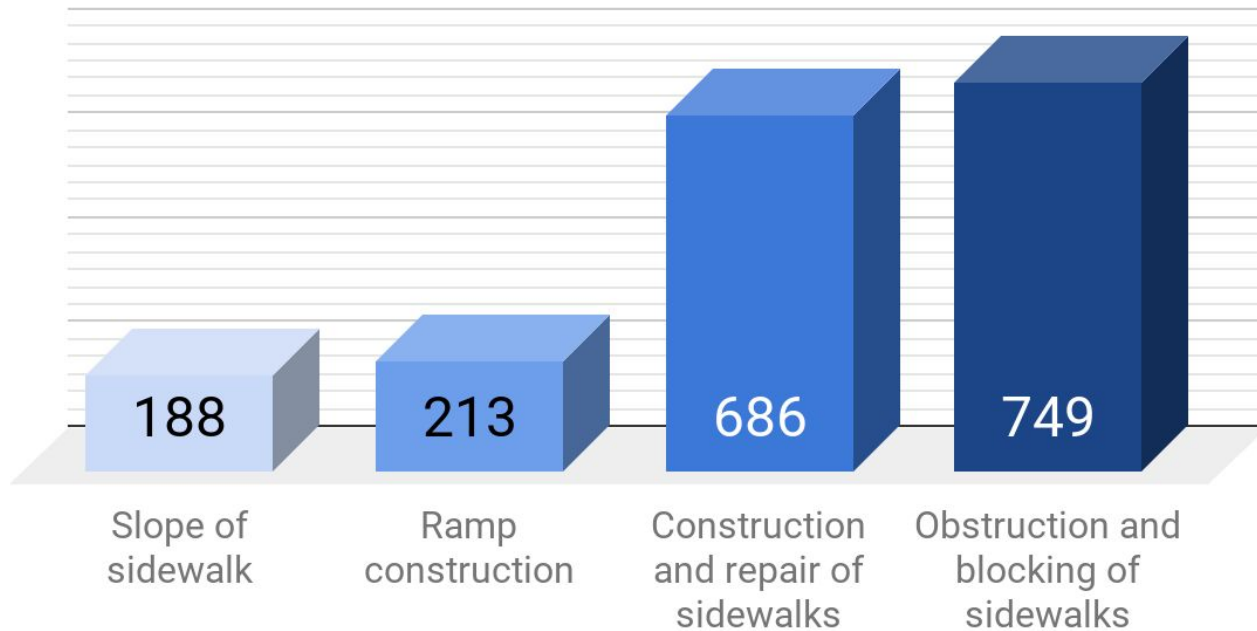
Motivation

- The state of the **sidewalks** is a **problem** that affects the citizens of Asuncion, particularly those with **reduced mobility**
- According to a **survey** conducted in Paraguay in 2017, **86%** of respondents have a **smartphone** with **Internet** access

In 2018 the Municipality has received 1836 complaints related to sidewalks

1.836 Complaints from the Municipality

Year 2018



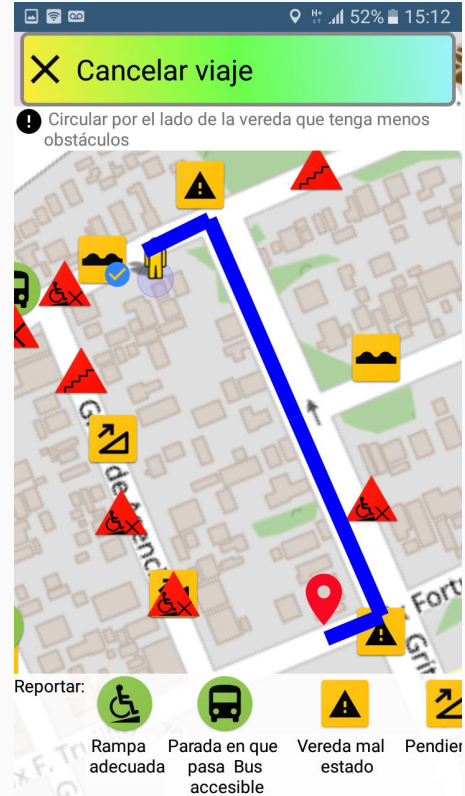
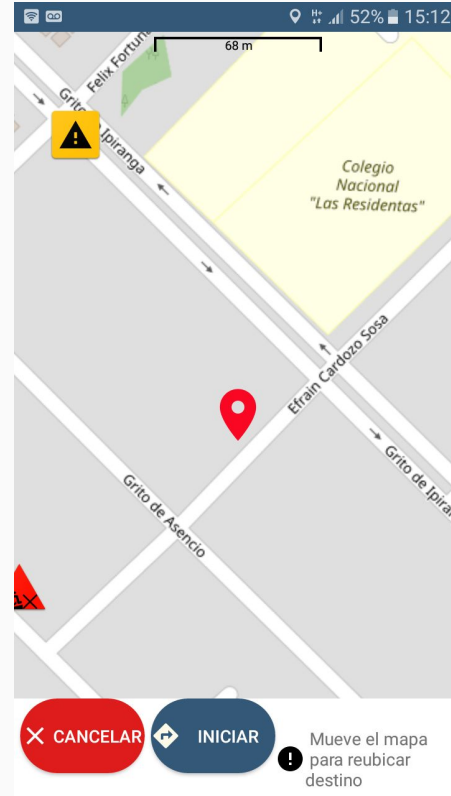
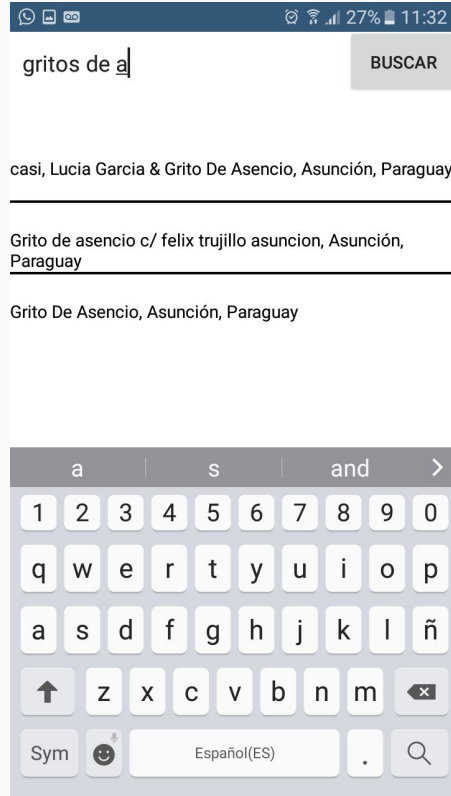
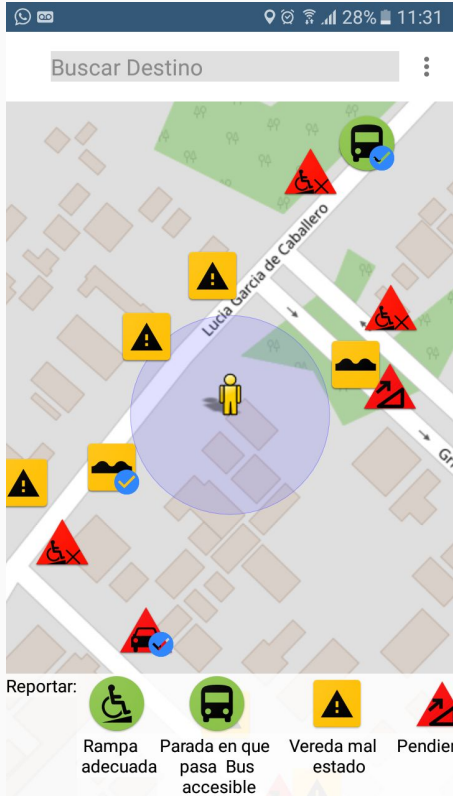
Motivation

Taking this situation into account, this work proposes a **mobile application** that

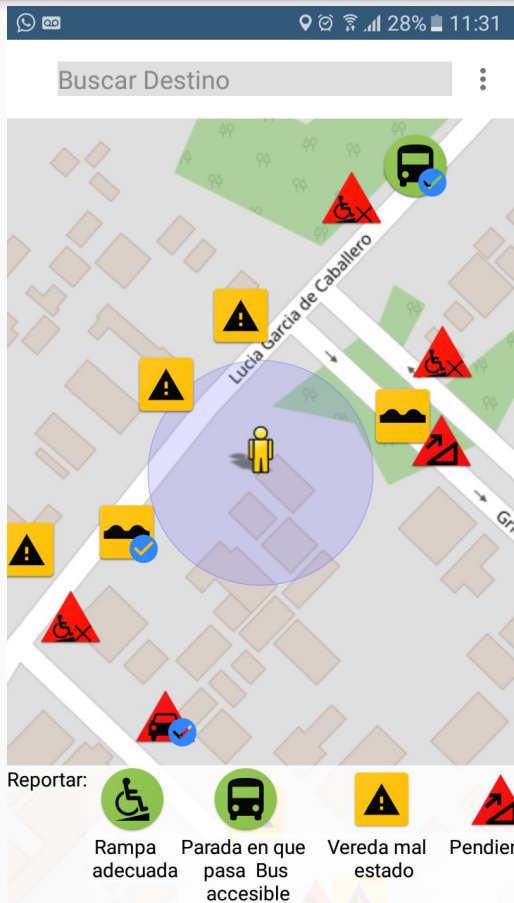
- Collects information about the **state of sidewalks** with the participation of **citizens**
- Makes the collected **information available** to citizens
- Recommends suitable **pedestrian paths**

The development of the application has been carried out following a **User-Centered Design** (UCD) methodology

The SmartMoving application



The SmartMoving application



Usability evaluation

- **CSUQ questionnaire:** 17 items
- **Likert scale:**
1 (totally agree)
to
7 (totally disagree)
- **Participants:** 3 users (wheelchair and skateboard)

	Average	Interpretation
Q(1-6): System usefulness	1.55	Agree
Q(7-12): Information quality	1.61	Agree
Q(13-15): Interface quality	1.16	Totally Agree
P(1-16): General usability	1.47	Agree

Conclusions

- **Positive feedback** was collected from users
- Will be the first app to generate data about the state of the sidewalks in **Paraguay**
- SmartMoving could be useful for the **Municipality**
- Other useful information could be incorporated for other **user profiles** (e.g. cyclists, tourists)

Thank you very much!

¡Muchas Gracias!

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