

# SAMo: Experimenting a Social Accountability Web Platform

Aaron Ciagli  
ciagli@fbk.eu

Birhanu Eshete  
eshete@fbk.eu

Pietro Molini  
pbmolini@fbk.eu

Adolfo Villafiorita  
adolfo.villafiorita@fbk.eu

Fondazione Bruno Kessler, via Sommarive 18, 38123 Trento, Italy

## ABSTRACT

The need for transparency and quality control of public services is crucial for a sustainable development of underserved communities. Information and data collection play a significant role in the efforts that NGOs, governments and international institutions are carrying out in this direction. In this paper we describe a platform to conduct assessment campaigns of the quality of public services and its experimentation in the rural district of Moamba, Mozambique.

## 1. INTRODUCTION

Mobile and web technologies have changed the way in which information flows, the tools Governments have to interact with citizens and how citizens can make their opinions heard by large audiences, get organized and mobilize.

Citizens have been equally good, if not better, at using these tools to try and make themselves heard. See, for example, the role of Internet communication in the events of the Arab Spring [1] or the usage of crowdsourcing platforms like Ushahidi for election monitoring [2]. In all these cases technology has proven to be a powerful tool to help empowering citizens in making their governments more accountable. However, the problem of giving a voice to those who do not have a direct access to mobile and data technologies still exists.

By collecting data about public services we enable citizens to express their perceptions on the quality of such services. As a side result, this process helps raising the level of awareness and know-how necessary to empower citizens and make Governments more accountable. For example, knowledge of the proper chain of responsibility in the delivery of a public service and updated information about the status of specific situations can help people exercise a more active citizenship, address their own issues and make governments accountable for those that are outside their reach or responsibility.

This paper describes an initiative sponsored by the World

Bank in which we conducted a pilot study aimed at collecting data about primary schools in the rural district of Moamba, Mozambique. On top of the technological challenges related to the development of an effective platform to achieve this goal, we had to mitigate a set of additional constraints typical of a developing country. In particular, we had to deal with the fact that the most of the target beneficiaries of this project were unable to directly interact with the technology and did not have direct access to government officials either.

The organizational model supported by the platform differs from a fully top-down approach (for example, government surveys, in which the information is collected and elaborated centrally) and from a fully bottom-up approach (for example, crowdsourcing, which requires citizens to have access to some technological solution). SAMo fosters a two-level organizations in which assessors become accountable and responsible for collecting information and opinions from citizens, who might not have access to ICTs. This distinguishes SAMo from similar solutions (e.g. Ushahidi) by enforcing a systematic approach for data collection.

The experimentation we conducted largely involved the Maputo Living Lab, whose goal is to build capacity and competences in ICT [3]. The volunteers of this project were trained by Maputo Living Lab and are planned to take ownership of the platform by becoming its maintainers.

## 2. THE SAMO PLATFORM

SAMo is composed of a Ruby on Rails web application and a mobile application for Android tablets. The web application contains the core engine of SAMo to manage campaigns, assessments, and geo-location services. In addition, it provides an Input/Output interface with the mobile client, a presentation layer and an administration component.

The SAMo Android application (SAMoApp) is the tool used by assessors for the actual data collection on the field during a campaign. In particular, assessors can select a campaign from the list of campaigns assigned to them by a manager, see the details of the selected campaign, compile new assessments for that campaign and finally upload the assessments to the SAMo server. SAMoApp's User Interface uses essential text and large buttons to ease the input of data in "difficult" conditions and it has been designed to operate in both connected and disconnected environments. In fact, an Internet connection is required for downloading the list of available campaigns and for uploading saved as-

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

DEV'13 January 11-12, 2013 Bangalore India.

Copyright 2013 ACM 978-1-4503-1856-3/13/01 ...\$15.00.

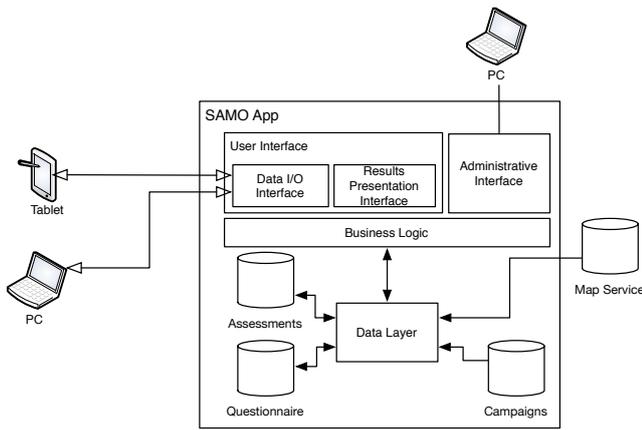


Figure 1: Architecture of the SAMo platform

assessments. No Internet connection is required for the input of new assessments. Finally, SAMoApp natively supports multiple languages and it is currently available in English and Portuguese.

### 3. PILOT STUDY

We used SAMo in a pilot study promoted by the World Bank to collect procurement indicators about primary schools in the rural district of Moamba, Mozambique. The region and the targets were chosen not only for their general interest but also for the logistical and technical challenges they pose. To collect data, we equipped 12 volunteers with tablets and two off-road vehicles and we embedded a sociologist within the interviewers to collect the reactions and attitude of the participants to the pilot.

Fieldwork started after a preparatory activity with the target community prepared with the help of district administrators and through community radios. During a period of six days, the interviewers visited each target school and collected assessments from teachers and parents of the kids enrolled there.

We need to remark that the organizational and logistic model we adopted for the pilot was largely justified by the novelty of the initiative and by the project timeframe, which had to be developed in two months, leaving little opportunities for a more “decentralized” involvement of resources and citizens.

The interest shown by the population in the initiative was higher than expected. A total of 677 interviews were collected out of an initial target of 500. The citizens participating to the pilot were particularly active in highlighting issues, proposing solutions, and in general participating to the initiative. Although such interest can be expected from people voluntarily showing up to be interviewed, it still provides some hints about the possible large-scale involvement of citizens.

A side result of the data collection activity is the geolocation of schools. The data available to us was limited to the distance in kilometers from the closest administrative center and finding them in many cases represented a challenge. The work of the volunteers and the usage of GPS-enabled tablets allowed us to precisely geolocate all schools and make

the data available on project’s website<sup>1</sup>.

### 4. CONCLUSION

The last few years have seen a fast evolution of systems to crowdsource data. However, when the baseline situation is not known, a more systematic approach to data collection is required. In such cases a completely top-down Government-driven approach might be ineffective, while a completely bottom-up approach is impossible to take (for instance, because of computer literacy issues or access to resources).

The combination offered by SAMo of a web component and a mobile component that can work offline offers the opportunity to collect data in areas with poor or costly data coverage, while, at the same time, making results available to a wide audience.

The results of our pilot have given us the opportunity of experimenting the efficacy of the tool, while, at the same time, having a glance at the current status of buildings and basic services provided by schools in a rural area neighbouring Maputo. The result highlighted various critical situations, which, in some cases, surprised the interviewers themselves, used to the urban setting of Maputo.

The ultimate goal of the platform is to use measurement campaigns as a tool to foster forms of citizens empowerment to make governments more accountable but also by helping citizens understand what they can do to improve local services. This is a topic which, for us, started from a project in a developing country but which is extremely relevant in both the developing and the developed world.

### Acknowledgments

This project was funded by the World Bank. We thank Dirk Bronselaer (Senior Procurement Specialist at the World Bank), Marco Battisti (Director of Maputo Living Lab), the staff members of MLL who participated to the study, Eduardo Muhamad Ali and Mohammad Tassin Sidi, and the assessors of the pilot campaign: Laura Chilundzo, Sansao Chambala, Danilo Jo, Manuel Lumbela, Alina Ivone Francisco, Carlos Pitagoras Cossa, Manuel Gerson, Estenio Manhica, Fernando Orlando Matsinhe and Mario Moreira.

### 5. REFERENCES

- [1] E. Stepanova. The role of information communication technologies in the “arab spring”. *Implications beyond the Region. Washington, DC: George Washington University (PONARS Eurasia Policy Memo no. 159*, 2011.
- [2] J. Hellström and A. Karefelt. Mobile participation? crowdsourcing during the 2011 uganda general elections. *Proceedings of M4D 2012 28-29 February 2012 New Delhi, India*, 28(29):411, 2012.
- [3] A. Ciaghi, A. Villafiorita, L. Chemane, and G. Macueve. Stimulating development through transnational living labs: The italo-mozambican vision. In *IST-Africa Conference Proceedings, 2011*, pages 1–8. IEEE, 2011.

<sup>1</sup><http://www.ict4sa.org/samo>