ENHANCING ELECTION MONITORING AND OBSERVATION USING E-MESSAGING TOOLS

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ABSTRACT

Election monitoring and observation are an integral part of an electoral process. They help to enhance the transparency and credibility of elections as well as the acceptance of results. Challenges faced by election monitoring and observation organizations include: the need for coordination and cooperation among observer groups; the need for follow-up on recommendations made after an election; the need to develop technologies appropriate for assessing e-voting technologies; and the need to develop commonly shared criteria for assessing democratic elections. In addition, challenges peculiar to Nigeria include: difficult terrain, poor Internet coverage, poor electricity and political instability bringing about insecurity. In this paper, we present contemporary e-messaging tools and initiatives that will help to address these challenges and thereby enhance the efficiency of election monitoring and observation missions.

Keywords: Election monitoring, election observation, electronic messaging, online communities, short messaging service.

INTRODUCTION

Election Monitoring and Election Observation are two crucial activities that take place during elections. The two words though often used interchangeably, have two distinct meanings. An electoral monitor has a role to play in the actual administration of elections while an observer does not (Electoral Commission of Ghana, 2008).

In essence, an electoral monitor has the power to oversee as well as intervene during the conduct of an electoral activity. Unlike the observer, the electoral monitor is able to correct election officials as they carry out their duties. As a result, a monitor needs to have a working knowledge of election administration unlike the ordinary observer. Although the observer's role appears passive when compared to that of the monitor, it is by no means less important. Both roles are essential in enhancing transparency and credibility in elections. Electoral observation and monitoring missions can also play key roles in diminishing conflicts before during and after elections (African Union, 2002).

Generally, electoral observation and monitoring teams are usually sent in from outside of a country intending to carry out elections. In Africa for instance, formal invitation is to be made to the African Union (AU) by the country organising the elections either through the

National Electoral Commission (NEC), or electoral authority, or the said government, in accordance with the democratic legal framework of the country, as necessary elements for mounting observations. (African Union, 2002). The AU on receipt of the invitation dispatches an Election Assessment Team to the country. The aim of the Election Assessment Team is to do an on the spot evaluation of the conditions in which the elections will take place. The team then reports back to AU the results of their evaluation and also advice the AU Election Unit on whether or not to send an Electoral Observation and Monitoring Team (African Union, 2002). If the decision is to send an observation or monitoring team, the assessment team must advice on the nature of the mission-observation, technical assistance, monitoring or supervision (African Union, 2002).

The mandate of observation and monitoring teams is decided by the assessment team which includes (African Union, 2002):

- Observation: This involves gathering information and making an informed judgement;
- ii. **Monitoring**: This involves the authority to observe an election process and to intervene in that process if relevant laws

or standard procedures are being violated or ignored;

- iii. **Mediation**: This is third-party intervention in electoral disputes, directed at assisting disputants to find mutually acceptable outcomes and solutions to electoral disputes;
- iv. **Technical Assistance:** This generally takes the form of technical support and advice to the Electoral Commission; and
- V. **Supervision and Audit**: This involves the process of certifying the validity of all or some of the steps in election processes either prior to or after the election has taken place.

Participants of the "Building Consensus on **Principles** for International Election Observation" project have identified four key challenges facing the community of international election observation organisations (The Carter Center, 2006) which includes: (1) the need to improve coordination and cooperation among observer groups; (2) the need to ensure that recommendations and findings of election observation missions are implemented by host governments and linked to broader efforts of democracy promotion; (3) the need to develop new methodologies appropriate for assessing electronic voting technologies; and (4) the need to develop commonly shared criteria for assessing democratic elections.

In addition to the challenges mentioned above, some challenges peculiar to Nigeria include: difficult terrains due to poor roads or lack of roads; poor information technology infrastructure; poor Internet coverage; poor electricity supply, as well as insecurity bringing about political instability.

A potentially viable antidote to these challenges is to leverage electronic messaging (emessaging) technology in the course of election observation and monitoring.

Hence, the aim of this paper is to identify and present probable e-messaging tools that can aid observation and election monitoring organisations in order to address these identified challenges. The rest of this paper consists of the following: Section 2 presents various contemporary e-messaging tools that enhance election observation and monitoring. Section 3 describes how the identified ICT tools can be used to address specific challenges with election associated monitoring

observation. Some recommendations are given in Section 4, while Section 5 concludes the paper.

2. AN OVERVIEW OF RELEVANT E-MESSAGING TOOLS

There currently exist a significant number of emessaging tools and initiatives that can be used to alleviate the challenges of Election Monitoring and Observation. Some of these are presented in the sequel section.

2.1 Short Messaging Service (SMS)

SMS stands for "short messaging service". It is also known as text messaging. With the growing popularity of mobile phones, especially in developing countries, SMS has become a familiar and widely used form of communication. It offers advantages over traditional voice services including reduced cost, and the ability to send messages to large numbers of people in a short amount of time.

The use of SMS as a tool for effective election monitoring activities is being adopted by a growing number of election monitoring organisations worldwide (Schuler, 2008). SMS was first used in election monitoring in Indonesia in 2005 and in Palestine in 2006 (Corinne, 2008). African countries such as Sierra-Leone and Ghana have since used it in their elections and have recorded successes. Some specific SMS tools are discussed next.

2.1.1 FrontlineSMS

FrontlineSMS is an award-winning free, opensource software that turns a laptop and a mobile phone into a central communications hub (FrontlineSMS.com). The program enables users to send and receive text messages with large groups of people through mobile phones. FrontlineSMS has the following unique features (FrontlineSMS.com):

- It does not require an Internet connection.
- It works with a user's existing plan on all GSM phones, modems and networks.
- It requires the use of a phone and SIM card, and it pays the local operator per SMS as usual.
- It is laptop-based and so can be used on the road or during power outages.
- It stores all phone numbers and records all incoming and outgoing messages.

- All data lives on a local computer, not on servers controlled by someone else.
- It is scalable. Messages can be sent to individuals or large groups.
- It enables two-way communication, useful for fieldwork or during surveys.
- It is easy to install and requires little or no training to use.
- Developers can freely take the source code and add their own features.
- It can be used anywhere in the world simply by switching the SIM card.

With FrontlineSMS, a user can carry out the following: human rights and election monitoring, disaster relief coordination, natural resource management, emergency alerts and mobilizing task force, field data collection, conducting public surveys, health care information requests, agricultural price updates, organising protests, mobile education programmes, coordinating fundraising efforts as well as providing weather updates (FrontlineSMS.com).

2.1.2 RapidSMS

RapidSMS is free and open-source framework for dynamic data collection, logistics coordination and communication leveraging basic SMS mobile phone technology (RapidSMS.org). It was developed to address UNICEF's biggest challenge which is access to accurate and timely information (UNICEF Innovation).

One of the biggest challenges facing field operations in the developing world is access to accurate, timely and reliable information. With the recent proliferation of technology throughout the developing world, the ability to improve this access has become cheaper and the tools to do so more ubiquitous (RapidSMS.org). UNICEF in carrying out its duty requires accurate and timely data in order to make decisions, see where there are problems, respond quickly and allocate resources effectively. RapidSMS has effectively addressed the problem and enabled UNICEF to increase its impact and coordination (UNICEF Innovation).

RapidSMS is used for developing SMS based applications. It has the following features (RapidSMS.org):

• It is based on the Django web application framework. Django is an open source

web application framework written in Python. Its primary goal is to ease the creation of complex, database-driven websites.

- It is designed as an enterprise-level web solution yet is capable of running in rugged environments that are completely offline. The only basic requirement for RapidSMS is power and cell phone coverage.
- It comes packaged with a robust and easily configurable web dashboard and
- It comes bundled with a large collection (and growing) of user contributed apps that provide a lot of the out-of-the box functionality you may be looking for.

RapidSMS is designed to run on any standard computer paired with standard GPRS modem or certain models of cell phones. It is currently designed to run on Linux operating systems (especially Ubuntu or Fedora). When compared to FrontlineSMS, it requires more technical knowledge to set up, customise and use.

2.1.3 Twitter

This is a real-time information network that allows its users to send and receive messages known as tweets (Twitter.com). Tweets are text-based posts of up to 140 characters displayed on the author's profile page and delivered to the author's subscribers who are known as followers (Crunchbase.com). When tweets are sent, by default, anyone can view them. However, Twitter enables senders to restrict viewing to their followers. All users can send and receive tweets via the Twitter website, SMS or external applications (Crunchbase.com). While service itself costs nothing to use, accessing it through SMS may incur phone service provider fees (Crunchbase.com).

Since its creation in 2006 by Jack Dorsey, Twitter has fast gained popularity worldwide. It is often referred to as the "SMS of the Internet" (Crunchbase.com). Twitter's Application Programming Interface (API) can be used for sending and receiving text messages by other applications (Crunchbase.com).

2.2 Online Communities

Online community can be defined as a group of persons, sharing common interests, who meet and communicate online to fulfill a need. In an

online community, members may not know one another and so it is possible for one member to walk right past another on the streets without saying hello. Building a community on a website gives the visitors of the site a chance to interact and feel a part of something. There are no tried and true method to encourage community spirit and feeling on the Web but there are tools to help encourage community (Krynin, 2010). The different forms of online communities are presented as follows.

2.2.1 Bulletin Boards and Online Forums

Bulletin boards are a great way to create an online community. Most forum software allows people to browse through the postings before logging in, and once they feel comfortable they can set up an alias and submit their own posts (Krynin, 2010). Bulletin boards and online forums can be created using the following software: Simple Machines Forum, MercuryBoard, phpBB Forum, Zorum Community Forum Software, tForum Bulletin Board System, XMB Forum, and Phorum Message Board (TheFreeCountry.com).

2.2.2 Web-based Chat Rooms

Chat rooms bring instant interactivity to a website as well as some level of anonymity compared to a bulletin board (Krynin, 2010). Site visitors can come into a chat room, adopt any name they like (alias) and talk to other people with similar interests. Good chat clients allow one person (or more) to act as moderator to give the chat room some sort of control. Websites that have a chat room can set up regular chat sessions, informal meetings, or just allow people to come and go as they please (Krynin, 2010). Web based chat rooms can be created using the following software: Ajax Chat, Pro Chat Rooms, WebChat, MOHA Chat, MPM Chat, phpMyChat (ResourceIndex.com) and plupper (Plupper.com) to mention a few.

2.2.3 Newsletters

They are a great way to keep readers informed about a site. Newsletters can talk about new features, explain exciting changes to the site, or just give good information that the readers might not have found otherwise.

2.2.4 Calendars

An often overlooked community building tool is the online calendar. This can be as simple as a list of events and their dates and times, or as complex as you can imagine. They are an invaluable tool for building community, as they allow readers to find out what is happening. It is important to list events such as chat room schedule, guest authors or forum topics to be discussed as well as events from other sites related to the site (Krynin, 2010).

2.3 Crowdsourcing

This word was formed from two words *Crowd* and *Outsourcing*. It is the act of taking tasks traditionally performed by an employee or contractor, and outsourcing them to a group of people or community, through an "open call" to a large group of people (a crowd) asking for contributions (Howe, 2006). A Crowdsourcing tool that can be applied in the area of election observation and monitoring is *Ushahidi* (Voter Report India, 2010).

Ushahidi is a free and open source project with developers hailing from Kenya, Ghana, South Africa, Malawi, Netherlands and the USA working on it. The Ushahidi Engine is a platform that allows anyone to gather distributed data via SMS, email or web and visualise it on a map or timeline. The goal is to create the simplest way of aggregating information from the public for use in crisis response.

The Ushahidi platform has been used to monitor elections in India, Mexico, Lebanon and Afghanistan (Ushahidi.com). A key component of Ushahidi is the ability to use mobile phones as a primary means of both sending crisis incidents and receiving updates. The Internet can be difficult to access or completely unavailable in some parts of the world, so the platform was created with the mobile phone as a foundational element.

3. DISCUSSION

So far we have identified the challenges being faced in carrying out election monitoring and observation and in the previous section we highlighted some existing tools that can help enhance election monitoring and observation activities. In this section, we identify specific tools that are suitable for addressing the challenges of election monitoring and observation as highlighted in Section 1.

3.1 Coordination and Cooperation

The challenge of improving coordination and cooperation among observer groups can be addressed by building an online community for election monitoring and observation, and encouraging all observer organisations to join. This can be achieved using any of the community building tools outlined earlier. Also, during elections, election monitoring and observation missions could endeavour to lay hold on the power of SMS by using any of the SMS tools to gather observation reports from various groups in the field and make prompt reports on the elections. It is believed that this will help to strengthen coordination and cooperation among observer groups during elections.

3.2 Follow-up and Recommendations

In order to ensure that recommendations and findings of election observation missions are implemented by host governments and linked to broader efforts of democracy promotion, domestic observer groups should give frequent report on developments of their countries' democracy using tools such as Ushahidi, FrontlineSMS or Twitter. This is crucial since many domestic observer groups are active throughout the electoral cycle.

3.3 Electronic Voting

Observer groups recognise that the use of technologies in all parts of the electoral process, from voter registration and boundary delimitation to the aggregation of final results, requires greater coordination among observation organisations and a commitment to sharing evoting experiences, including lessons learned. Adaptations to observation methodologies should be shared among the observation community (The Carter Center, 2006). This can be made possible through electronic newsletters, bulletin boards as well as online forums and chat rooms.

3.4 Criteria for Assessing Democratic Elections

There remains an urgent need for observer organisations to establish clear bench-marks and build international consensus on detailed criteria for assessing elections (The Carter Center, 2006). Therefore a collective effort aimed at developing specific standards and criteria for assessing democratic elections and building consensus around common international standards would be an important next step and this can be achieved by building a community online for election observation and monitoring organisations.

3.5 Difficult Terrain

During elections in Nigeria, there are some locations that are difficult to access due to poor roads or lack of roads as in the case of settlements surrounded by water. This poses a challenge to election monitors and observers who have to report the findings of their observation or monitoring exercise on or before final election results are announced. However, with SMS tools such as FrontlineSMS, RapidSMS and Twitter, election monitoring and observation teams will be able to transmit their observation results from any location (no matter its remoteness) to a central collation centre in record time thereby allowing citizens to determine if the election results reflect their vote.

3.6 Poor Internet Coverage

Internet coverage is limited in Nigeria and this can hamper web-based reporting of electoral activities. However, the SMS tools do not require Internet connection to be able to report observations made during an election.

3.7 **Poor Electricity**

Electricity supply in Nigeria also limits the effort of election monitoring and observation teams but tools such as Ushahidi, FrontlineSMS, Twitter and RapidSMS can be used on mobile phones and laptops which reduces the effect of poor electricity.

3.8 Insecurity

Using a camera in politically tense environments can put election monitors and observers in danger of political violence. A mobile phone is a ubiquitous device that may not arouse suspicion in politically tense atmosphere. Most of the identified e-messaging tools are tailored to work on mobile phones, which will enable election monitors and observers to report cases of electoral fraud without arousing suspicion.

4. RECOMMENDATIONS

In the light of the foregoing, the following recommendations are put forward in order to improve the quality of Election Monitoring and Observation in Nigeria.

 Prospective election monitors or observer groups should endeavour to embrace the use of SMS tools, bulletin boards, online forums as well as chat rooms.

- The community of International Election
 Observation organisations should
 encourage domestic observer groups in
 Nigeria to give frequent reports on the
 developments of democracy in Nigeria
 using Ushahidi or FrontlineSMS.
- Participants in the process of election monitoring and observation should be equipped with requisite computer training and skills that would enable them to leverage e-messaging in carrying out their duties.
- Government should also look into making some basic investments at improving the quality of IT infrastructure in order to enhance the election monitoring and observation process.

5. CONCLUSION

This paper highlights the challenges currently associated with the process of election monitoring and observation by International Election Observation organisations. A proposal for enhancing the election monitoring and observation process based on the use of contemporary e-messaging tools have been presented taking into cognizance the Nigerian context. The identified e-messaging tools are presented as a panacea to alleviating challenges associated with election monitoring observation. In future work, the possibility of setting up a customized on-line community for the monitoring of Nigerian electoral processes shall be explored.

6. REFERENCES

- African Union, 2002. Draft Guidelines for AU Electoral Observation and Monitoring Missions. AU.
- Corinne, R. (2008, November 7). SMS as a tool in Election Observation. *MobileActive.org* .
- Crunchbase.com. 'Twitter Company Profile' [online]. Available at: www.crunchbase.com/company/Twitter. Last accessed: 31st March, 2010.
- Electoral Commission of Ghana. (2008). *Election Observation and Election Monitoring*. EC.
- FrontlineSMS.com. 'What is FrontlineSMS?' [online]. Available at:

- http://www.fronlinesms.com/what. Last accessed: 31st March, 2010.
- Howe, J. (2006). *The Rise of Crowdsourcing*. Wired. Available at: http://www.wired.com/wired/archive/14. 06/crowds.html. Last accessed: 31st March, 2010.
- Krynin, J. (2010). *Building Online Communities*. About.com.
- Plupper.com. 'Jabber/XMPP Live Chat Service and Feedback Widget' [online].
 Available at: http://www.plupper.com.
 Last accessed: 28th March, 2010.
- RapidSMS.org. 'RapidSMS' [online]. Available at: http://www.rapidsms.org. Last accessed: 27th March, 2010.
- ResourceIndex.com. 'The PHP Resource Index: Complete Scripts: Chat' [online]. Available at: http://php.resourceindex.com/Complete Scripts/Chat. Last accessed: 27th March, 2010.
- Schuler, I. (2008). SMS as a tool in Election Observation. *Innovations* , 143-157.
- The Carter Center. (2006). *Building Consensus* on *Principles for International Election Observation*. Atlanta: Carter Center.
- TheFreeCountry.com. 'Free PHP Message Boards (BBS) Scripts' [online]. Available at: http://www.thefreecountry.com/php/mes sageboards.shtml. Last accessed: 27th March, 2010.
- Twitter.com. 'About Twitter' [online]. Available at: http://www.twitter.com/about. Last accessed: 31st March, 2010.
- UNICEF Innovation. 'UNICEF Innovation' [online]. Available at: http://unicefinnovation.org/mobile-and-sms.php Last accessed: 27th March, 2010.
- Ushahidi.com. 'About Ushahidi' [online].

 Available at:
 http://www.ushahidi.com/media/Ushahid
 i_1-Pager.pdf. Last accessed: 28th
 March, 2010.
- Voter Report India (2010). 'Voter Report India' [online]. Available at: http://votereport.in. Last accessed: 28th March 2010.