

This section adds additional detail to the Research Design Chapter (XXX). For those readers, who want to understand more of the technical components of running such a multi-faceted academic election campaign we include a great amount of detail in this section. As we discuss in Chapter 6, our project involved four stages: recruitment into the platform, engagement on the digital platform, real-world participation, and end-line follow up after the elections. The implementation of these phases chronologically overlapped with each other making a succinct chronological explanation of the project difficult (see Figure XXX), but, like Chapter 6, our exposition generally follows a chronological timeline.

## 1 Digital Recruitment – Phase 1

We set out to recruit South African citizens into our platform. We aimed to recruit individuals who interacted with different types of mobile technology. To target different cross-sections of the South African electorate, we worked with a consultant who advised the research team on what types of media to buy for the project and the quantity of media needed in order to recruit a sufficient number of participants. Our consultant also placed the media buys with the relevant vendors (Mobile Phone Operators, Mxit, Mobi, and Twitter).

Our aim at the outset of the project agreed upon together with our partner was to get 200,000 users across USSD, MXit, Mobi site and social media to engage in at least some element of the campaign.

To recap what we stated in Chapter 6, working through VUMI, a open source application that allowed us to deploy the same instruments across multiple types of communication media, we launched the same participation campaign on four different technologies (see Figure XXX). First, we targeted USSD technology to recruit individuals on *any* type of mobile phone. These individuals could potentially have a smart phone, but the technology is also available to those who have first generation (no data or Internet) and second generation feature phones (i.e, color flip phone with data) mobile technologies. If individuals responded to the USSD request, we obtained their mobile phone number and later in the platform also communicated with these individuals using SMS messaging technology.

Within Vumi, we also targeted South Africans who wanted to interact with us via modern social network applications. In our second technology, through VUMI, we developed a Mxit application. Mxit was a highly popular South African social

networking service that many in South Africa used in lieu of Facebook.<sup>1</sup>. Third and fourth, we also developed an interface for Twitter and Google Talk, well-known players in the social media sphere.

Outside of VUMI, we also developed a platform for Mobi technology. We added the Mobi channel for citizens to join our campaign because Mobi is a lightweight web platform that many South Africans with data enabled feature phones use to surf the web. Some readers may be familiar with these websites because they end in `.mobi`. Vodaphone, one of the largest mobile carriers in South Africa also has a version of `.mobi` called Vlive which works directly with their phones. For technical reasons, however, it was not possible to integrate Mobi platforms into Vumi, as they have their own method for data storage and structure. As a result, we do not have the same type of metadata for Mobi, as we do for our Vumi channels. On the front end, however, we made every endeavor, to make the Mobi technology work as similarly as possible to all of the Vumi channels.

## 1.1 USSD Recruitment

USSD, which stands for Unstructured Supplementary Service Data, is a GSM (Global System for Mobiles) method for creating an open connection to a mobile service provider.<sup>2</sup>

Unlike SMS, a user creates a session with the mobile provider, which allows for two way communication. Such two way communication creates an environment that can be closely akin to a survey questionnaire. Unlike an online survey, however, a USSD session *does* timeout after a certain fixed period — in our case 90 seconds. To continue taking part in the experience, therefore users have to redial a USSD short code to reestablish an open connection.

A fundamental difficulty of recruiting individuals via USSD (or SMS) into such platforms is that South Africa, like many countries, strongly regulates mobile marketing and the sending of SMS messages.<sup>3</sup>. To recruit individuals into our platform, we employed three strategies, which invited participants to enter our platform through different USSD short codes. A USSD short code is simply a unique set of numbers

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<sup>1</sup>Facebook made it impossible for our tech partner to develop an App compatible with their interface

<sup>2</sup>For those readers inside the United States where CDMA is the main wireless technology, GSM is the competing mobile technology. Those readers outside of the United States, are likely familiar with USSD technology. If you ever dialed `*#####*`, to get your account balance, you used USSD technology.

<sup>3</sup>Many users greatly appreciate this regulation, as those who receive an unending flow of spam in countries that do not regulate SMS messaging can attest to.

that users would enter to join our system. The three strategies are laid out in detail below.

First — and most importantly — we deployed an advertising technique called Please Call Me (PCM). We deployed the the PCM element of the campaign using a randomization strategy. Second, we placed a one-page paid content advertisement to encourage recruitment through a magazine associated with our campaign, which allowed users to enroll through all of our channels, including USSD. Third, individuals who may have seen a PCM or whose friend my have told them about it also may have joined through the base short-code \*120\*7692#.

### 1.1.1 Please Call Me!

By far the most largest and most important USSD recruitment strategy we employed was Please Call Me (PCM) messages. PCMs are a technology developed in South Africa (and now used widely) to integrate advertising into free messages. By sending a PCM, users can send a message to their friends, relatives, or acquaintances requesting that that the person to whom they sent the message call them. Often, PCMs are used by individuals who have no credit left on their phone to request that someone else call them and foot the bill, as only the caller pays in the South African context. However, it is not a requirement that you have no money on you account to use a PCM, and a user can request for someone else to call them, even if the PCM-requesting user has credit on her phone.

Sending a PCM message is free to both the sender and receiver of the message. Mobile phone operators make money on this system by embedding paid advertising messages — visible to both the sender and receiver — into the PCM messages. This advertising is made visible both to the sender and receiver, regardless of whether or not the receiver responds to the message. The pushing of an advertising message to a screen of a user is known in the advertising industry as an *impression*. And one PCM, as is evident from the structure, yields two impressions. An impression, like a mailing in a get out the vote campaign, may never be read. Indeed, there is no way for the research team to judge whether the sender or receiver read the PCM, so the PCM should be thought of from a research perspective as a dyadic intention to treat (ITT).

We embedded three three different messages into PCM advertising. These messages comprised our control and two treatment groups. In the control group, users were required to pay for their own interactions with the system. In our first treat-

ment group, users were told that they could win air time via a lottery.<sup>4</sup>. In the third group, we told users that their participation would be free. Given the larger (and more expensive) costs implication of this channel, the short codes for this channel was substantially different to the lottery or control channels. The messages associated with these three groups are as follows:

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<sup>4</sup>There was only one lottery ticket garnered for each individual that entered under this channel. That is, there were not interaction specific lottery tickets. Users in the Lottery treatment had to pay the cost of interacting with the system. The channel was not free.

## Control

Join VIP:Voice to help make elections 2014 free and fair. Dial  
\*120\*7692\*2# Standard rates charged

## Treatment 1 – Lottery

Join VIP:Voice 2 help make elections 2014 free & fair. Dial  
\*120\*7692\*3# & stand a chance 2 win R55 airtime

## Treatment 2 – Subsidy

Join VIP:Voice to help make elections 2014 free and fair. Dial  
\*120\*4729# 2 participate for free

We sent out the PCMs on the following schedule during the month of April. As seen from Figure ??, we first sent out a large burst of 13.3 million PCMs to each of our three channels on April 8th, 9th and 10th. We then followed up later in the month with smaller bursts of 1 million PCMs per channel. The total cost of this exercise was 294,000 rand, which at the time, was just over 20,000 USD. As described in Chapter 6, it is possible that the same individual could have gotten multiple messages, if she sent or received multiple PCMs.

Most individuals respond very quickly to the PCM or not at all. Therefore, PCMs for our different randomized channels were sent out on different days, so that

individuals would not get multiple PCMs from different channels on the same day.<sup>5</sup>. Figure ?? visualizes the size of the PCM burst and shows the response, as measured by any individual dialing in the USSD code into our system.



Figure 1: The bursts, (show as different shade of gray or colors) are shown on the dates they are sent out and the lines show the density of responses (or maybe frequency). I am also not sure if want this on the same scale or a different one. I am pretty certain we want a different scale.

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<sup>5</sup>It is possible, however, that individuals received different PCMs from different channels on different days

### **1.1.2 VIP Live Magazine**

We partnered with local NGO LivitySA in South Africa to promote our platform under the brand VIP Live. As part of the campaign, as seen in Figure ??, we placed an advertorial in the NGO's magazine, including all the different ways that South African Citizen's could participate. As seen in Figure XXXX, this advertorial included all of the different ways in which users could participate, including the USSD. The magazine was given it's own short code of \*120\*7692\*3#.

**Adverorial |** Brought to you by Praekelt Foundation

**VIP VOICE**

**WHAT:**  
VIP:VOICE is South Africa's largest citizen-based election platform. It allows us, the youth, to engage with election-related info through the day we put our all-important X on the ballot paper. VIP:VOICE is a multi-channel engagement portal. This means VIP:VOICE has created a number of applications on social networks for us to engage in, voice our opinions, monitor election activity and view all kinds of info regarding our 2014 elections.

**WHY:**  
VIP:VOICE enables citizens like us to play a vital role in the electoral process and helps make politicians accountable to us, their voters.

**HOW:**  
You can join the VIP:VOICE community as a follower, or on a more active level as a citizen reporter so that you can report on anything election-based, at any time, in a variety of ways.

..... ➤

**VIP:VOICE IS A SNAPSHOT OF WHAT'S HAPPENING IN THE ELECTION FROM THE GROUND UP.**  
**YOU DECIDE HOW YOU WANT TO ENGAGE AND ON WHICH PLATFORM!**

**USSD:** DIAL **120\*7692\*1#**  
**MXIT:** ADD **VIP:VOICE2014** AS A CONTACT TO GET STARTED  
**TWITTER:** FOLLOW **@VIP:VOICE2014** AND DM US TO BEGIN!  
**#VIP:VOICE2014**  
**G CHAT:** SEND A CHAT TO **VIP:VOICE2014@GMAIL.COM** TO GET STARTED.  
**MOBI:** INTERACT ON MOBI SITE [HTTP://YAL.MOBI/VIP/](http://YAL.MOBI/VIP/)  
**V LIVE:** PARTICIPATE ON VLIVE [HTTP://LIVE.VODAFONE.COM/YAL](http://LIVE.VODAFONE.COM/YAL)

**VIP**

**VOTING IS POWER**

**DID YOU KNOW...**  
**VIP:VOICE IS EXPECTED TO BE THE LARGEST ELECTION ENGAGEMENT PLATFORM EVER!**

It is designed to empower and engage South African citizens during the election process right up through Election Day. The plan is to use the knowledge gained from VIP:VOICE to create future platforms for election campaigns based in South Africa and in other countries, so that peeps can connect on a broader scale when it comes to their local elections.

Citizen monitoring is an exciting opportunity for us to get involved, report what's happening in our communities and keep our elections free and fair.

➤ **NEW-SCHOOL = COOL**

The old-school way of monitoring election processes has rarely engaged with South Africans like us. VIP:VOICE is the new-school way of sourcing information, by creating citizen reporters who will help observe the election process on the ground by placing the power in the hands of the voters.

Technology is taking over; let's unite it with the power of people to improve elections!

### **1.1.3 Residual Short Code**

As shown above the short code for the Treatment 1 and Control channel had a base short code of **\*120\*7692\***. If people dialed into the system they could still participate, however, they had standard rates charged to them. Moreover, since we did not know which PCM they originally saw, we did not consider them to be part of the randomization.

### **1.1.4 USSD Summary**

We can measure the proportion of users who enrolled in one of our three PCM based short codes, the magazine short-code, or those who simply dialed the root shortcode **\*120\*7692**, who can be considered a residual category. While it is possible that a few individuals simply guessed at this short code, we believe that this did not occur frequently and these proportions are good representations of the present of the five different categories, as presented above. As we can see, the grant majority of people who dialed into the citizen through USSD did so through one of the three PCM codes.

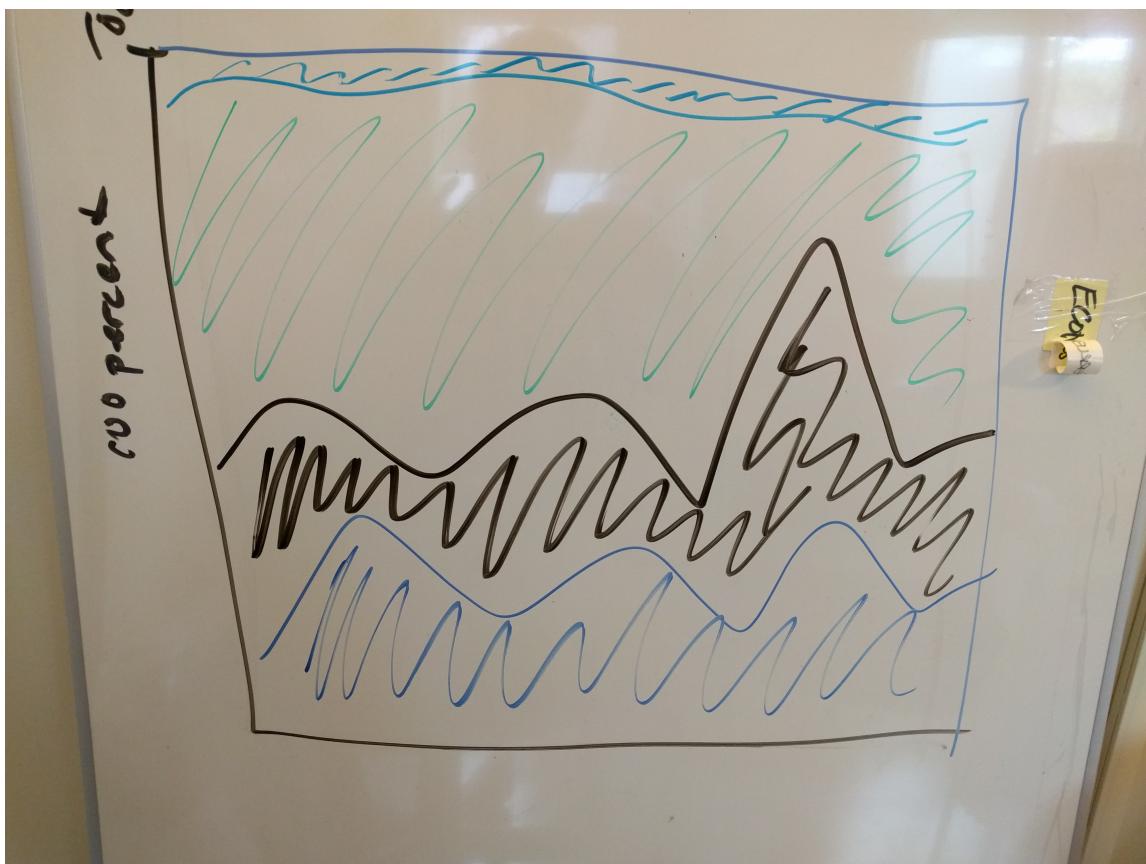


Figure 2: The relative proportions of people who dialed into our system using the different USSD shortcode options by date.

## 1.2 Mxit

Mxit (<http://get.mxit.com/about/>) was a popular South African social networking application, which at the end of 2014 had XXX. However, recently, due to market pressure, the company has closed.

We advertised on Mxit using two of their different capabilities to reach users. First, we advertised through what are known as *splash pages*, which are advertisement pages superimposed on every user's Mxit account. The user usually sees these *splash pages* for between three and six seconds when they open the Mxit application. Second, we used what Mxit terms *broadcast messages*, which are text messages sent to Mxit users via their direct messaging system.

Figure 3 displays the five *splash pages* developed for our Mxit campaign and what

they might have looked like on a South African's smart phone.



Figure 3: The five splash screens developed for the Mxit campaign

In order to judge the success of such technologies as splash pages, as explained in the PCM section, the industry uses the terms *impressions*, *clicks generated* and *click through rate* or CTR. Impressions, broadly speaking, refer to how many times an advertisement is displayed on a user's screen.<sup>6</sup> *Clicks generated* are the number of users who click on the banner page generated by the *impression*. Finally the *CTR* is simply *Clicks generated* divided by the total number of *impressions*. These clicks became individuals that are measured in our platform statistics only after they sent a broadcast message back to our Mxit bot, which then communicated with participants on the Mxit platform, so a *click through rate* only measures the maximum number of potential users who entered our platform through Mxit.

On Mxit, we also ordered broadcast messages in packets of 300,000 messages. When dealing with messaging, the industry often uses the term *conversion rate*, rather than *click through rate* to discuss the percentage of users who responded to the mail. Our broadcast messages generally generated approximately 7,000 users as a result of each packet of 300,000 impressions for a *conversion rate* of approximately two percent. The two percent rate was lower than the three or four percent rate we had planned on, and, according to our industry consultants, related to South Africans's deep apathy about politics (see XXX). For those who say the broadcast

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<sup>6</sup>In causal language, we cannot differentiate between treatment and intention to treat (ITT), however.

message, they also sent a broadcast message back to our Mxit bot, which then communicated with participants on the Mxit platform.

Because we had generated *conversion rates* and *CTRs* lower than expected, we purchased extra Mxit media, and ran the largest campaign in Mxit’s history. As we discuss in Chapter XXXX, we had over 100,000 Mxit users contract our participation platform.

[DISCUSS–XXX show sample conversion rates for Broadcast messages]

### 1.3 Twitter

Twitter is a widely used social media platform globally. In order to attempt to harness the power of Twitter, we developed a Twitter @VIP:Voice2014 bot to interact with participants.<sup>7</sup>. In order to participate in our platform, a participant had to follow our Twitter bot and then Direct Message (DM) the Twitter bot. The DM technology on Twitter is an instant messaging technology, which also allows researchers to replicate a survey environment by sending back and forth messages.

Like on Mxit, we engaged in media buys to promote our campaign on Twitter. These media buys DID WHAT?

The relative difficulty of recruiting people on Twitter, despite the media buys reflected the lack of familiarity in the South African market of using DM technology, according to our tech partners. The two step process of first following the bot and then DMing it has proved problematic for recruiting many users, according to our industry consultants.

### 1.4 Gtalk

Gtalk was the former name of Google’s instant messaging service, which in 2016 goes by Hangouts. Doubtless more name changes will occur. The instant messaging service like Twitter’s DM technology allowed (at the time) for researchers to replicate the question and answer type of interactions that are required in a survey environment.

The only media we purchased for Gtalk was the advertorial placed in the LiveSA magazine. Therefore, we did not expect, nor did we receive many participants from Google’s Channel.

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<sup>7</sup>For those researchers considering undertaking such a project, we did experience problems with the both being targeted as a spam bot by Twitter. Therefore, prior planning around this issue is suggested

## 1.5 Mobi/Vlive

Like on Twitter, we advertised on Mobi through banners adds to drive engagement, as seen in Chapter 6, these banner ads were displayed across the top of the web-page when users accessed a texttt.mobi or Vlive page.

I SENT LIEZE A REQUEST FOR THIS FOLDER

Figure 4: All of the mobi ads

## 2 Digital Engagement

From an implementation perspective, we divided Phase 2 — the digital engagement part of the project — into two stages, which we called Phase 2a and Phase 2b. Phase 2a involved all of the questions and engagement opportunities that were available to participants as soon as they logged onto the system. Phase 2b involved questions that were pushed to individuals at specified times throughout the campaign.

One specificity of developing survey-style question for multiple tech platforms is the need to meet strict character limits that are not present in any other type of survey environment we know of. In our case, we were limited to 180 characters including white space on USSD and only 160 characters for SMS. Such character limits required us to use grammar and abbreviations typically used on social media. We relied heavily on our tech partners to make abbreviations that are widely understood in South Africa.

Phase 2a was developed in three languages: English, Afrikaans and Isizulu (Zulu). Multiple languages made source translations that could also be translated into the other two languages in under 180 characters vital. The source language for all of the translations was English. Unlike Phase 2a, Phase 2b was only carried out in English, so the necessity of having all translations be short enough was removed. We discuss this decision more in the relevant section.

### 2.1 Phase 2a

After entering our platform through one of our recruitment channels, all individuals were asked what language they would like to proceed in. Immediately after that, all respondents were asked an *engagement question*. In the world of mobile participation campaigns, *engagement questions* help to drive enthusiasm and get users excited about participation. We chose a voting question to drive engagement because our

platform addressed issues related to the upcoming election. The voting question read as follows:

|                               |   |                                       |
|-------------------------------|---|---------------------------------------|
| It's election time!           | Dis stemtyd! Dink jy                    | Yiskhathi sokhetho!                   |
| Do u think ur vote matters?   | jou stem maak saak?                     | Liyasiza yini ivoti lakho?            |
| 1. YES every vote matters     | 1. JA elke stem tel nogtans             | 1. YEBO lelo nalelo voti libalulekile |
| 2. NO but I'll vote anyway    | 2. NEE maar ek stem nie                 | 2. CHA kodwa ngizovota                |
| 3. NO so I'm NOT voting       | 3. NEE ek gaan NIE                      | 3. CHA Yingakho ngingavoti            |
| 4. I'm NOT REGISTERED to vote | 4. Ek's NIE GEREISTEREER om te stem nie | 4. ANGIKUBHALISELANGA ukuvota         |
| 4. I'm TOO YOUNG to vote      | 4. Ek's TE JONK om te stem              | 4. Ngisemncane; angivoti              |

After answering the voting question, users were then given the opportunity to accept the Terms and Condition of joining the platforms or were given the opportunity to read in more depth about the terms and conditions. This choice was presented as follows:

|  |  |  |
|--|--|--|
| Please accept the terms and conditions to get started. | Aanvaar asb bepalings & voorwaardes om te begin. | Yamukela le imigomo nemibandela ekuvumela ukuqala. |
| 1. Accept & Join                                       | 1. Aanvaar & Sluit aan                           | 1. Yamukela ujoyine                                |
| 2. Read t&c  | 2. Lees B&V                                      | 2. Funda imigomo nemibandela                       |
| 3. Quit  | 3. Onttrek                                       | 3. Phuma   |

In the original research design, which went live on April 7, 2014, included a protocol for a spatial randomization at the level of voting district. Undertaking such a randomization required that we were able to locate each individual with enough granularity that we would be able to place them in their proper voting district. It also required that we randomize them early on in the campaign, because the messaging to those in the treatment districts was to be much more intense in the GOTV component of the platform. The original protocol called for saturating to the users in the treatment voting districts to see if we could increase turnout.

However, given that we USSD sessions are short, the goal was to have

South Africans enter their free form address and, for the overwhelming majority of users, have the Google API recognize the user entered address and return their exact latitude and longitude which would place them inside a voting district. Recognizing that it would be possible to have more than one match, if Google returned more than one high quality match, then the platform allowed users to choose from the matches available.

Using the Google API to match addresses was recommended by our tech partners because they believed that using sequential USSD questions could take up too much time and drive even more individuals away from the platform than with the Google look up. Our hope, therefore, was that, given their latitude and longitude returned from the Google API call, we could then determine each respondent's voting district, since we had the boundaries of each voting district from the IEC.

As detailed in (ELJM XXXXX), the Google API performed much more poorly live than it did in testing with the free form information entered by South Africans. Moreover, asking for people's address was still driving attrition from the platform. Therefore, on April 17, 2014, the request for geographic information was permanently turned off<sup>8</sup> and the spatial randomization element of the protocol was not implemented. We provide this information here for researchers who are considering such types of spatial treatments to highlight some of the difficulties in potentially spatially assigning users. We encourage scholars to do more work on how to effectively carry out such randomizations.

After either agreeing to the Terms and Conditions or providing geographic information, only USSD participants were sent an SMS message thanks them for registering and reminding them how to log back on to the USSD system. This was unnecessary for the other social media channels because of the DM technology.

## 2.2 Welcome Menu

Once they agreed to the Terms & Conditions and entered the platform, all users saw a welcome menu, which is known as a *landing page* in the mobile development community. Generally speaking, a *landing page* gives users different menu options and allows them to engage in different aspects of the platform.

In our case, a landing page was necessary because, in the context of such online digital engagement, users must fill out any question posed themselves. Hence, such a platform has a distinct usage pattern compared to a survey filled out by an enumerator. It is also different from, an Internet survey, where users fill out the entire

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<sup>8</sup>For those involved in election monitoring, we asked for their geographic information later on. See XXX.

survey in on sitting. Because users can enter the platform and participate whenever they desire, they require an easy menu-based system to access different components of the platform. For that reason, our landing page had sections, which included questions that looked similar to survey responses, as well as other types of engagement sections.

Specifically, the landing page contained four section where users could provide us with survey-type response data. Sections 1,2 and 5 (“Answer & win”, “VIP Quiz”, and “What’s up”) all look like typical survey questions one might find in an online survey, with the exception of the usage of Internet grammar. Option 3, “Report Election Activity.” allowed users at any time to report on election related activity. Option 4, “View VIP results...” gave users access at various points to some statistics that had already been collected from the platform. Option 6, the “About” section contained a very brief explanation of the project and Option 7 simply ended an individual user’s session. The *landing page* options in the three languages were as follows:

| Welcome to VIP!             | Welkom by VIP!                 | Siyakwamukela       |
|-----------------------------|--------------------------------|---------------------|
| 1. Answer & win!            | 1. Antwoord & wen!             | ohlelweni i-VIP!    |
| 2. VIP Quiz                 | 2. VIP-vasvra                  | 1. Phendula uwine!  |
| 3. Report Election Activity | 3. Rapporteer verkiesingsaksie | 2. Imibuzo ye-VIP   |
| 4. View VIP results...      | 4. Sien VIP-uitslae...         | 3. Bika umcimbi     |
| 5. What’s up?               | 5. Wat gaan aan?               | wokhetho            |
| 6. About                    | 6. Omtrent                     | 4. Bheka imiphumela |
| 7. End                      | 7. Eindig                      | ye-VIP..            |
|                             |                                | 5. Kwenzenjani?     |
|                             |                                | 6. Ngalokhu         |
|                             |                                | 7. Qeda             |

Each section of the *landing page* also had various incentivization schemes with which it was associated. Table 1, shows each section in the landing page, the types of questions asked and the incentivization scheme, if any, for that section.

| Name                     | Type  | Incentivization Structure                     |
|--------------------------|---|---|
| Answer & Win             | Demographics                                | Lottery to win R55 and push message reminders |
| VIP Quiz                 | Political/Voting Questions                  | None  |
| Report Election Activity | Election Reports                            | None in Phase 2 but push messaging in ???     |
| What's Up                | Mix of Demographics and Political Questions | None  |

Table 1: Type of questions and incentivization for survey data collection elements of splash page

[MAYBE SOMETHING ABOUT MISSING DATA PATTERNS]

## 2.3 Answer & Win

The “Answer & win” section contained four questions deemed as the most important covariates necessary for statistical models in the South African context: gender, age, past voting behavior, and race. These questions were prioritized by putting the section at the top of the landing page and through reminder messages which were sent out to encourage people who had not yet filled out these demographic questions to fill them out. There were also only four questions to help ensure that users filled out the entire section. However, in case users did not fill out the whole section, the order in which these questions were asked was randomized to insure that missingness was not correlated with the order in which they were asked.

The questions were as follows:

|                  |                |                       |
|------------------|----------------|-----------------------|
| I am             | Ek is          | Ngingo                |
| 1. Male          | 1. Manlik      | 1. wesilisa           |
| 2. Female        | 2. Vroulik     | 2. wesifazane         |
| How old are you? | Hoe oud is jy? | Uneminyaka emingaki?  |
| 1. u14           | 1. o14         | 1. ngaphansi kweyi-14 |
| 2. 15-19         | 2. 15-19       | 2. 15-19              |
| 3. 20-29         | 3. 20-29       | 3. 20-29              |
| 4. 30-39         | 4. 30-39       | 4. 30-39              |
| 5. 40-49         | 5. 40-49       | 5. 40-49              |

|                                    |                                       |  |
|------------------------------------|---------------------------------------|--|
| 6. 50+                             | 6. 50+                                | 6. ngaphezu<br>kwengama-50                 |
| Did you vote in the 2009 election? | Het jy in die 2009-verkiesing gestem? | Wavota yini okhethweni lwango-2009?        |
| 1.Yes                              | 1.Ja                                  | 1.Yebo                                     |
| 2.No, could not/was not registered | 2.Nee, kon/was nie geregistreer       | 2.Cha,<br>angikwazanga/ngangingabhalisanga |
| 3.No, did not want to              | 3.Nee, wou nie                        | 3.Cha, angithandanga                       |
| 4.No, other                        | 4.Nee, ander                          | 4.Cha, okunye                              |
| 5.Skip                             | 5.Slaan oor                           | 5.Eqa                                      |
| I am                               | Ek is                                 | Ngi  |
| 1. Black African                   | 1. Swart Afrikaan                     | 1. ngumAfrika oNsundu                      |
| 2. Coloured                        | 2. Bruin                              | 2. yiKhaladi                               |
| 3. Indian/Asian                    | 3. Indir/Asies                        | 3. ngowomdabu                              |
| 4. White                           | 4. Wit                                | waseNdiya/waseEshiya                       |
| 5. Other                           | 5. Ander                              | 4. Mhlophe                                 |
| 6. Skip                            | 6. Slaan oor                          | 5. ngokunye                                |
|                                    |                                       | 6. Eqa                                     |

For those users who entered on our smart phone channels, where we did not necessarily have their phone numbers, we also asked individuals for their phone numbers. Asking for their phone numbers served two important purposes. First, if they won prize money, we could send it to them. Second, we only used cell phones for election day observation recruitment. Therefore, in order to recruit individuals to observe the elections, we required their phone number. We asked for their cell phone number in the following manner:

|   |   |  |
|---|---|--|
| Please give us your cellphone number so we can send you your airtime! | Gee vir ons jou selnommer sodat ons vir jou lugtyd kan stuur! | Sicel inombolo yeselula yakho ukuze sikhazi ukukuthumelel i-airtime yakho! |
|---|---|--|

We sent out push messaging, which we detail in Phase 2b,to remind users to fill out these questions. Because individuals entered the platform on any date between April 7 and May 1, different individuals in the platform may have gotten different numbers of reminders to call back into the platform. Table XXX, shows how many

reminders were sent out to the different number of individuals who registered for the platform to fill out the “Answer & Win” section.

[MAYBE A TABLE OF REGISTRATION DATE AND THE NUMBER OF REMINDERS]

## 2.4 VIP Quiz

As shown in Table 1, the “VIP Quiz” section of the online platform engaged with participants by asking them questions about their political views and voting behavior. Unlike the “Answer & win” section, this component of the platform was not incentivized for participants. Like the “Answer & win” section the ordering with which respondents got these questions was randomized. After four questions, the user was served a screen asking them if they would like to return to the main menu or continue answering.

The questions in the “VIP Quiz” section were designed to get at XXX and YYYY. Since the research team was acutely interested in the question of violence in the African electoral context, several questions particularly addressed this issue.

The questions were worded as follows in the three languages in which Phase 2a was conducted:

|   |  |   |
|---|--|---|
| During the past year, have you attended a demonstration or protest? | Gedurende die laaste jaar, het jy aan 'n betoging of protesoptog deelgeneem? | Onyakeni odlule, wawuhambela yini umbhikisho?   |
| 1. Yes, many  | 1. Ja, baie  | 1. Yebo, eminingi                               |
| 2. Yes, a few   | 2. Ja 'n paar  | 2. Yebo, embalwa                                |
| 3. No   | 3. Nee   | 3. Cha  |
| 4. Skip   | 4. Slaan oor   | 4. Eqa  |
| Are you registered to vote in the upcoming elections?               | Is jy geregistreer om in die komende verkiesing te stem?                     | Ukubhalisele yini ukuvota ezinkethweni ezizayo? |
| 1. Yes  | 1. Ja  | 1. Yebo   |
| 2. No   | 2. Nee   | 2. Cha  |
| 3. Unsure   | 3. Onseker   | 3. Anginasiqiniseko                             |
| 4. Skip   | 4. Slaan oor   | 4. Eqa  |
| How likely is it that   | Wat is die kans dat  | Maningi kangakanani                             |

|  |  |  |
|--|--|--|
| you will vote in the upcoming election?  | jy in die komende verkiesing sal stem?                                     | amathuba okuba uvote okhethweni oluzayo?                                 |
| 1. Very likely   | 1. Beslis  | 1. Maningi kakhulu   |
| 2. Somewhat likely   | 2. Byna seker  | 2. Akhonywana  |
| 3. Somewhat unlikely   | 3. Nie groot kans  | 3 .Ayangabazeka  |
| 4. Very unlikely   | 4. Beslis nie  | kancane  |
| 5. Unsure  | 5. Onseker   | 4. Awekho nhlobo   |
| 6. Skip  | 6. Slaan oor   | 5. Anginasiqiniseko  |
|  |  | 6. Eqa   |
| Which political party do you feel close to?                                      | By watter politieke party voel jy tuis?                                    | Iyiphi inhlangano yezepolitiki esenhlziyweni yakho?                      |
| 1. ANC   | 1. ANC   | 1. ANC   |
| 2. Agang   | 2. Agang   | 2. Agang   |
| 3. COPE  | 3. COPE  | 3. COPE  |
| 4. DA  | 4. DA  | 4. DA  |
| 5. EFF   | 5. EFF   | 5. EFF   |
| 6. IFP   | 6. IFP   | 6. IFP   |
| 7. Other   | 7. Ander   | 7. Enye  |
| 8. I don't feel close to a party   | 8. Voel nie tuis by een nie  | 8. Ayikho  |
| 9. Skip  | 9. Slaan oor   | esenhlziyweni yami   |
|  |  | 9. Eqa   |
| During the past year, has your community had demonstrations or protests?         | Gedurende die laaste jaar, het jou gemeenskap betogings of proteste gehad? | Onyakeni odlule, umphakathi wangakini ube nayo yini imibhikisho?         |
| 1. Yes, several times  | 1. Ja verskeie kere  | 1. Yebo, izikhathi eziningana  |
| 2. Yes, once or twice  | 2. Ja een of twee keer   | 2. Yebo, kanye noma kabili   |
| 3. No  | 3. Nee   | 3. Cha   |
| 4. Skip  | 4. Slaan oor   | 4. Eqa   |
| If your community has had demonstrations or protests in the last year, were they | As jou gemeenskap wel betogings of proteste gehad het, was daar geweld?    | Uma kuwkuthi umphakathi wangakini waba nayo imibhikisho ngonyaka odlule, |

|   |   |  |
|---|---|--|
| violent?  | 1. Ja<br>2. Nee<br>3. Nie van toepassing<br>4. Slaan oor  | yayinodlame yini?<br>1. Yebo<br>2. Cha<br>3. Awufanele lo mbuzo<br>4. Eqa  |
| How easy is it for your neighbors to find out if you voted?                 | Hoe maklik kan jou bure uitvind of jy gestem het?<br>1. Baie maklik<br>2. Redelik maklik<br>3. Ietwat moeilik<br>4. Baie moeilik<br>5. Slaan oor                              | Kulula kangakanani komakhelwane bakho ukwazi ukuthi uvotile?<br>1. Kulula kakhulu<br>2. Kulula kancane<br>3. Kunzinyana<br>4. Kulukhuni kakhulu<br>5. Eqa  |
| People in my neighborhood look down on those who do not vote:               | In my gemeenskap sien mense neer op jou as jy nie gaan stem nie:<br>1. Stem sterk saam<br>2. Stem saam<br>3. Stem nie heeltemal saam<br>4. Stem glad nie saam<br>5. Slaan oor | abantu esakhelene nabo bamthatha kancane ongavoti:<br>1. Ngivuma kakhulu<br>2. Ngiyavuma kancane<br>3. Ngiyaphika kancane<br>4. Ngiphika kakhulu<br>5. Eqa |
| How do you rate the overall performance of President Zuma?                  | Hoe slaan jy President Zuma se algehele prestasie aan?<br>1. Uitstekend<br>2. Goed<br>3. Middelmatig<br>4. Swak<br>5. Slaan oor   | Ukuklelisa kanjani ukusebenza kukaMengameli Zuma ngokubanzi?<br>1. Kuhle kakhulu<br>2. Kuhle<br>3. Kuyagculissa khona<br>4. Akukuhle<br>5. Eqa             |
| How do you rate the overall performance of your local government councilor? | Hoe slaan jy die algehele prestasie van jou plaaslike regeringsraadslid aan?  | Ukuklelisa kanjani ukusebenza kwekhansela lendawo ngokubanzi?<br>1. Kuhle kakhulu  |

|   |  |   |
|---|--|---|
| 1. Excellent  | 1. Uitstekend  | 2. Kuhle  |
| 2. Good   | 2. Goed  | 3. Kuyagculisa khona  |
| 3. Just Fair  | 3. Middelmatig   | 4. Akukuhle   |
| 4. Poor   | 4. Swak  | 5. Eqa  |
| 5. Skip   | 5. Slaan oor   |   |
| Which party has contacted you the most during this election campaign? | Watter party het jou die meeste gedurende hierdie verkiesingsveldtog gekontak? | Iyiphi inhlangano ekuthinte kaningi kunezinye ngalo mkhankaso wokhetho? |
| 1. None, I have not been contacted                                    | 1. Nie een het my gekontak nie   | 1. Ayikho,<br>angithintwanga  |
| 2. ANC  | 2. ANC   | 2. ANC  |
| 3. Agang  | 3. Agang   | 3. Agang  |
| 4. COPE   | 4. COPE  | 4. COPE   |
| 5. DA   | 5. DA  | 5. DA   |
| 6. EFF  | 6. EFF   | 6. EFF  |
| 7. IFP  | 7. IFP   | 7. IFP  |
| 8. Other  | 8. Ander   | 8. Enye   |
| 9. Skip   | 9. Slaan oor   | 9. Eqa  |
| During the past two weeks, have you attended a campaign rally?        | Het jy 'n verkiesingssaamtrek gedurende die laaste twee weke bygewoon?         | Emasontweni amabili edlule, ngabe uwuyihambele yini irali yomkhankaso?  |
| 1. Yes  | 1. Ja  | 1. Yebo   |
| 2. No   | 2. Nee   | 2. Cha  |
| 3. Skip   | 3. Slaan oor   | 3. Eqa  |

We also sent out push messaging to remind users to fill out the “VIP Quiz”. Like in the “Answer & win” section, the reminders received to fill out this section depended on registration date. This push messaging schedule is covered in Section 2.8.

## 2.5 Report Election Activity

In order to replicate much of the work that long-term election monitors undertake, we designed a section of our platform for users to report election-related activity. The election report section differed from the “Answer & win”, “VIP Quiz” and “What’s up” section, in that any individual user could fill out multiple election reports, hence contributing multiple observations.<sup>9</sup> Because filling out a report is, by nature, a sequential activity, these questions, occurred in a preset order.

After a user filled out an election report, VUMI piped the data to an Ushahidi instance, which was set up for the project.<sup>10</sup> Based on our users’ input, the Ushahidi instance then mapped the data.

The protocol for filling out an election report involved five steps. First, in order to easily classify the type of election reports tha users filed, we designed a pre-coded set of choices from, which users could choose the type of activity users wanted to report. This classification scheme was based off the comparative politics literature on election violence (XXXX) and patronage politics (XXXX Stokes), and was designed to capture both types of activities. Therefore, as soon as users selected to “Report Election Activity” (Option 3 on the Landing Page), they chose between the following six categories in the language in which they were enrolled in the platform:

---

<sup>9</sup>For those familiar with relational databases, this activity should be seen as a separate table linked to features related to the individual.

<sup>10</sup>Ushahidi is an online crowd-sourcing platform designed for even reporting. For more on Ushahidi, see [www.ushahidi.com](http://www.ushahidi.com)

| Choose report:               | Verslagtipe:                        | Khetha uhlobo lombiko:           |
|------------------------------|-------------------------------------|----------------------------------|
| 1. Party going door-to-door  | 1. Party wat van deur tot deur gaan | 1. Inhlango ihamba imizi ngemizi |
| 2. Party intimidating voters | 2. Party wat kiesers intimideer     | 2. Inhlango isabisa abavoti      |
| 3. Party giving food/money   | 3. Party wat kos/geld/geskenke      | 3. Inhlango isabalalisa          |
| 4. Campaign rally            | 4. uitdeel                          | ukudla/imali/iziphlo             |
| 5. Campaign violence         | 4. Verkiesingsaamtrek               | 4. Irali yomkhankaso             |
| 6. Protest/Demonstrtn        | 5. Verkiesinggeweld                 | 5. Udlame lokuhankasa            |
|                              | 6. Protes/Betoging                  | 6. Umbhikisho                    |

Second, after choosing what type of report they wanted to file, the system asked users to give a title to their report. This field was open-ended and allowed user to

enter raw text.

Third, we asked users tell us where the incident happened as raw text. Given the raw data the user entered, we queried the Google API to return a location. Fourth, matches for what the user entered were then returned to the user, and users choose the location that best matched where the event occurred. Fifth and finally a thank you message was sent out. Steps two though five are shown below.

|   |   |  |
|---|---|--|
| What is the title of your report?   | Wat is jou verslag se titel?  | Sithini isihloko sombiko wakho?  |
| Where did this event happen? Please be as specific as possible and give address and city.   | Waar het hierdie voorval plaasgevind?<br>Wees asb baie spesifieker en gee adres en stad/dorp.   | Wenzekephi lo mcimbi?<br>Khomba indawo ngangokusemandleni unikeze ikheli nedolobha.  |
| Please select your location from the options below:<br>1. *Location 1*<br>2. *Location 2*<br>3. *Location 3*<br>4. More                                   | Kies asb jou ligging uit die opsies hieronder:<br>1. *Location 1*<br>2. *Location 2*<br>3. *Location 3*<br>4. Meer  | Khetha indawo yakho kulezi ezilandelayo:<br>1. *Location 1*<br>2. *Location 2*<br>3. *Location 3*<br>4. Ezinye   |
| Thank u for ur report! Keep reporting & u may have a chance to be an official election day reporter where u can earn airtime or cash for ur contribution. | Dankie vir jou verslag! Hou aan om verslag te doen & jy staan dalk 'n kans om as amptelike stemdagverslaggewer gekies te word en lugtyd of kontant vir jou bydrae te verdien. | Siyabonga ngombiko wakho! Qhubeka nokubika, ungaba sethubeni lokukhethwa njengozobika ngokusemthethweni ngosuku lokhetho, lapho ungazitholela khona i-airtime noma ukheshi ngosizo lwakho. |

[XXX SOME SUMMARY OF THIS, DEPENDING ON WHAT IS IN THE MAIN BOOK OR PICTURE OF THE MAP ISTEFL]

[XXX NOT SURE WE NEED TO INTO THE DETAIL OF WHAT HAPPENED IF USERS TIMED OUT]

## 2.6 View VIP Results

On XXXXXXXX such an such a date, the following results were posted here: [I have no idea what was here and when]

## 2.7 What's Up

The “What’s Up” Section of questions asked a mixture of demographic and political questions, which we were interested in collecting, but which could not fit in the other sections of the platform. These were, therefore, questions to which we expected lower response rates because they were not incentivized. Moreover, no push messaging went out to encourage people to fill them out in Phase 2b.

The questions were worded as follows in our three languages:

|   |   |  |
|---|---|--|
| How satisfied are you with the way democracy works in South Africa?                         | Hoe tevrede is jy met die manier waarop demokrasie werk in Suid-Afrika?                                   | Ugculiseke kangakanani yindlela intando yabantu esebenza ngayo kuleli?                                   |
| 1. Very satisfied   | 1. Baie tevrede   | 1. Ngigculiseke  |
| 2. Somewhat satisfied   | 2. Ietwat ontevrede   | kakhulu  |
| 3. Dissatisfied   | 3. Ontevrede  | 2. Ngigculisekile  |
| 4. Very dissatisfied  | 4. Baie ontevrede   | ngandlela thile  |
| 5. Skip   | 5. Slaan oor  | 3. Angugculisekile   |
|   |   | 4. Angigculisekile   |
|   |   | neze   |
|   |   | 5. Eqa   |
| During the past two weeks, how frequently have campaign rallies occurred in your community? | Gedurende die laaste twee weke, hoe dikwels het daar verkiesingssaamtrekke in jou gemeenskap plaasgevind? | Emasontweni amabili edlule abe maningi kangakanani amarali okukhankasela ukhetho emphakathini wangakini? |
| 1. Often  | 1. Dikwels  | 1. Kанинги   |
| 2. Several times  | 2. Verskeie male  | 2. Izikhathi ezimbalwa   |
| 3. Once or twice  | 3. Een of twee maal   | 3. Kanyе noma kabili   |
| 4. Never  |   |  |
| 5. Skip   |   |  |

|   |  |   |
|---|--|---|
|   | 4. Nooit<br>5. Slaan oor   | 4. Nakanye<br>5. Eqa  |
| During the past 2 weeks, how often have party agents gone door to door in ur community 2 mobilize voters? | Gedurende die laaste twee weke, hoe dikwels het partyagente van deur tot deur in jou gemeenskap gegaan om stemme te werf?<br><br>1. Often<br>2. Several times<br>3. Once or twice<br>4. Never<br>5. Skip | Emasontweni amabili edlule abezinhlangano bangene kangakanani imizi ngemizi ngakini benxenxa abavoti?<br><br>1. Kаниギ<br>2. Izikhathi ezimbalwa<br>3. Kanye noma kibili<br>4. Nakanye<br>5. Eqa |
| During the past two weeks, how frequently have party agents intimidated voters in your community?         | Gedurende die laaste twee weke, hoe dikwels het partyagente kiesers in jou gemeenskap gentimideer?<br><br>1. Often<br>2. Several times<br>3. Once or twice<br>4. Never<br>5. Skip                        | Emasontweni amabili edlule abamele izinhlangano babesabise kangakanani abavoti ngakini? 1. Kаниギ<br>2. Izikhathi ezimbalwa<br>3. Kanye noma kibili<br>4. Nakanye<br>5. Eqa                      |
| During the past two weeks, how frequently have party agents intimidated voters in your community?         | Gedurende die laaste twee weke, hoe dikwels het partyagente kiesers in jou gemeenskap gentimideer?<br><br>1. Often<br>2. Several times<br>3. Once or twice<br>4. Never 5.Skip                            | Emasontweni amabili edlule abamele izinhlangano babesabise kangakanani abavoti ngakini?<br><br>1. Kаниギ<br>2. Izikhathi ezimbalwa<br>3. Kanye noma kibili<br>4. Nakanye<br>5. Eqa               |

|   |   |   |
|---|---|---|
| How much do you trust the ANC?  | Hoeveel vertrou jy die ANC?   | Uyethemba kangakanani i-ANC?  |
| 1. A lot  | 1. Baie   | 1. Kakhulu  |
| 2. Some   | 2. Biejie   | 2. Kakhudlwana  |
| 3. Not much   | 3. Nie veel nie   | 3. Hhayi kakhulu  |
| 4. Not at all   | 4. Glad nie   | 4. Nakancane  |
| 5. No opinion   | 5. Geen opinie  | 5. Anginakuphawula  |
| 6. Skip   | 6. Slaan oor  | 6. Eqa  |
| How much do you trust the Democratic Alliance (DA)?   | Hoeveel vertrou jy die Demokratiese Alliansie (DA)?   | Uyethemba kangakanani iDemocratic Alliance (DA)?  |
| 1. A lot  | 1. Baie   | 1. Kakhulu  |
| 2. Some   | 2. Biejie   | 2. Kakhudlwana  |
| 3. Not much   | 3. Nie veel nie   | 3. Hhayi kakhulu  |
| 4. Not at all   | 4. Glad nie   | 4. Nakancane  |
| 5. No opinion   | 5. Geen opinie  | 5. Anginakuphawula  |
| 6. Skip   | 6. Slaan oor  | 6. Eqa  |
| How much do you trust the Economic Freedom Fighters (EFF)?  | Hoeveel vertrou jy die Ekonomiese Vryheidvegters (EFF)?   | Uyethemba kangakanani iEconomic Freedom Fighters (EFF)?   |
| 1. A lot  | 1. Baie   | 1. Kakhulu  |
| 2. Some   | 2. Biejie   | 2. Kakhudlwana  |
| 3. Not much   | 3. Nie veel nie   | 3. Hhayi kakhulu  |
| 4. Not at all   | 4. Glad nie   | 4. Nakancane  |
| 5. No opinion   | 5. Geen opinie  | 5. Anginakuphawula  |
| 6. Skip   | 6. Slaan oor  | 6. Eqa  |
| During the past year, how often have u or anyone in ur family gone without enough food to eat? 1. Never | Gedurende die laaste jaar, hoeveel maal het jy of iemand in jou familie nie genoeg kos gehad om te eet nie? | Gedurende die laaste jaar, hoeveel maal het jy of iemand in jou familie nie genoeg kos gehad om te eet nie? |
| 2. Once or twice  | 1. Nooit  | 1. Nooit  |
| 3. Sometimes  | 2. Een of twee maal   | 2. Een of twee maal   |
| 4. Many times   | 3. Soms   | 3. Soms   |
| 5. Always   | 4. Baie maal  | 4. Baie maal  |
| 6. Skip   | 5. Altyd  | 5. Altyd  |

|  |  |   |
|--|--|---|
|  | 6. Slaan oor   | 6. Slaan oor  |
| In South Africa, it<br>is sometimes necessary<br>to use violence for a<br>just cause:<br>1. Strongly agree<br>2. Somewhat agree<br>3. Somewhat disagree<br>4. Strongly disagree<br>5. Skip | In Suid-Afrika is dit<br>soms nodig om geweld<br>te gebruik vir 'n saak<br>waarin jy glo:<br>1. Stem sterk saam<br>2. Stem ietwat saam<br>3. Stem nie heeltemal<br>saam<br>4. Stem glad nie saam<br>5. Slaan oor | Kuleli zwe kuye<br>kube nesidingo<br>sokusebenzisa udlame<br>ukufeza inhlosso<br>ethile:<br>1. Ngivuma kakhulu<br>2. Ngiyavuma ngandlela<br>thile<br>3. Ngiyaphika<br>ngandlela thile.<br>4. Ngiphika kakhulu<br>5. Eqa |
| Sometimes not voting<br>is the best way to<br>express your political<br>preferences:<br>1. Strongly agree<br>2. Somewhat agree<br>3. Somewhat disagree<br>4. Strongly disagree<br>5. Skip  | Deur nie te stem nie<br>druk jy jou politieke<br>voorkeure die beste<br>uit:<br>1. Stem sterk saam<br>2. Stem ietwat saam<br>3. Stem nie heeltemal<br>saam<br>4. Stem glad nie saam<br>5. Slaan oor              | Ukungavoti kuye kube<br>yindlela yokuveza<br>ukuzikhethela<br>ngokwepolitiki:<br>1. Ngivuma kakhulu<br>2. Ngiyavuma ngandlela<br>thile<br>3. Ngiyaphika<br>ngandlela thile<br>4. Ngiphika kakhulu<br>5. Eqa             |

Figure 6 shows XXX.

[XXX SOME SUMMARY STATISTICS??]

Figure 6: Additional images depending on what goes into the main section of the manuscript or at least a table of descriptive statistics on these questions.

## 2.8 Phase 2b – Digital Follow up

In Phase 2b, we had two types of communication – reminder push messaging and survey type questions. In the first type of communication, we encouraged participants to re-enter the platform and fill out parts of the platform they had yet to fill out.

In the second type of communication, we pushed additional specific survey style questions not located on the original platform to users.

Both of these types of communication were done via SMS for the USSD channels and in English for all channels [CHECK THIS].<sup>11</sup> By design, Phase 2b differed from Phase 2a in that it was carried out by SMS for those with dumb phones (or who signed up via a USSD channel). This was because there is no push capability over USSD. SMS, however, incurs even stricter text limitations than USSD, so these messages had to be even shorter – only 160 characters maximum.

### **2.8.1 Reminder Messaging: Fill out the Landing Page Section and Updates on Questions Filled Out**

In order to motivate individuals to contribute and garner more responses, we sent out two types of update messaging. The first type of update messaging, simply asked people to re-enter the platform. In some of these messages we reported statistics from the platform back to users. Figure ?? shows the dates of these pushes and the responses afterward.

Figure 7: Line graph with dates of messages being sent and response patterns

On April 19th and April 29th, we sent out the following message to all users, where only the only difference were platform specific instructions to respond to the message, which would be contained in the <ENTER PLATFORM> part of the message below.

---

<sup>11</sup>The decision to perform this component of the platform only in English reflected large and unexpected multilingual development issues on the VUMI system, which led the research team to concentrate on pushing such reminders only in English.

On VIP:Voice 72000+ S.Africans believe their vote counts.Ur voice matters 2!<ENTER PLATFORM> & complete Answer&Win 4 a chance to win R55 airtime!

CONFIRM THIS PART On April 21st we pushed a message telling people about the result of the VIP quiz so far and encouraging users to also participate. We did not distinguish between users who had already completed the section, so the message may have been redundant for some users.

On VIP:Voice 53% have reported protests in ur communities in the last year. Is that true 4 u? <ENTER PLATFORM> to have ur voice heard in VIP Quiz!

This message was followed up by a message on April 29th updating the statistics from the “Answer & win” Section, which showed a dramatic increase the percentage of our users who had witnessed protests.

On VIP:Voice 66% have reported protests in ur communities in the last year. Is that true 4 u? Dial \*120\*4279# to have ur voice heard in VIP Quiz!

Also on April 21, we also pushed a message exclusively to our smart phone channels, asking people to fill out the “Answer & win” section.

So far VIPs rated Pres.Zuma’s performance: 25% excellent. 35% poor. How do u rate him?Reply VIP &complete Answer&Win 4 a chance to win R55!

We also followed up with a message on April 29th telling people about the updated statistics on Jacob Zuma, which had barely budged in the preceding 8 days.

So far VIPs rated Pres.Zuma’s performance: 26% excellent. 34% poor. How do u rate him?Reply VIP &complete Answer&Win 4 a chance to win R55!

### 2.8.2 Survey Questions: Thermometers and Panels

To encourage continual participation in our platform both before and after the election, we also pushed questions to individuals, asking them about the elections. These questions were only available via these pushes and not present in any of the sections on the “Landing Page.” These messages were composed of two types of messages: *Panel Messages* and *Thermometer Messages*. For each sequence of panel and thermometer question push messages, individuals received one of 30 specific sequences. That is, there were  $\frac{6!}{(6-2)!} = 30$  unique randomizations of the panel message combinations.

To be more specific about the 30 unique randomizations before the elections, five

push messages were sent in the order depicted in Table ?? over a 10-day sequence. That is, all respondents first got a panel message, then a second different panel message. This second panel message was followed by a thermometer message and then the same panel message that the respondent had received in the first message push. In other words, for each respondent, the first and last panel message they received were the same. Finally, the respondent received a second thermometer message.

Each individual's message sequence was also randomized to start on a different day of the week — with respondents starting on either Tuesday, Thursday or Saturday. Finally, for those who entered on our USSD channels, the survey question messages also included information about the costs of replying to the SMS. Therefore, while all users on our social networking channels messages did not include anything about cost, those on our USSD/SMS phone channels got different text added to their messages. This text is presented in Table ???. Hence, in we expected those in treatment groups to respond at higher rates than our control groups. In sum, for USSD, then, there were 270 unique combinations of Message Sequence/Start Day/Incentive, while for all other users there were 90 unique possibilities of Message Sequence/Start Day.

[DANNY AND JAMES: WHY OH WHY?. In principle this design allowed us to determine the day of the week effects as well as look at within subject difference over time in terms of the panel questions]

| Original Randomization Group | Message Accompanying Thermometer            |
|------------------------------|---|
| User Pays                    | "SMSs cost standard rates"                  |
| User Pays + Incentive        | "U will be paid R2 airtime for ur response" |
| Zero-rated for user          | "U will be given airtime for the SMS"       |

Figure 8: This could use a cool viz

| Users will receive their messages in the following sequence and with the following timing: |         |         |        |         |         |
|--|---------|---------|--------|---------|---------|
| Message  | Panel 1 | Panel 2 | T1     | Panel 3 | T2      |
| Timing   | 0       | +3 days | +5days | +8days  | +10days |

Figure 9: I think there could be a neat visualization here

Figure ?? reports XXX and YYY.

Figure 10: Whatever descriptive stats we decide on that are not going to be in the main body of the paper.

### 3 Real World Participation

We recruited individuals to monitor the elections through our online digital platform. These individuals were not official election observers, but rather were given a set of tasks that any average citizen could complete. We also desired to benchmark the participation of our digitally recruited observers with more traditional observers. Working together with the NGO (XXX NAME?), and also fielded our own group of domestic elections observers. This group of election observers were registered with the IEC, and we trained them as official election observers. We cover our training protocol for these observers in Appendix XXX. [I DON'T HAVE ANY OF THE MATERIALS FOR THIS PART, AND I THINK IT MAY WARRANT A SEPARATE APPENDIX. WE CAN DISCUSS]

As mentioned in Chapter XXX, the goal was to XXX, and the results are covered in Chapter XXX.

#### 3.1 Digital Recruitment for Real World Participation

For all those respondents who had agreed to the Terms and Conditions at the time the recruitment messages were sent out, each and every individual was randomized into one of two groups: A Treatment group, whose members would be paid a small amount of money for carrying out the task in addition to airtime reimbursement; and a Control group, whose members would simply be reimbursed airtime. These messages were pushed to respondents solely via SMS, including those who had entered via other platforms such as Mxit, Twitter or Google Talk.

We designed the recruitment drive to be on SMS only for two reasons. First, we wanted to be able to push content to individuals around election day, and it was unclear whether, when they had entered the platform on one of the social media channels, if they had used a computer or their phone. Second, development timelines for the software made agile production of social media channels infeasible.<sup>12</sup>

These messages were sent out twice: Once on April 24, 2014 and the second time on April 27, 2014. Hence, if new people signed up for the platform, while the first date had already passed, they were sent the message on the second date. Those who were sent the message on the first date and did not respond, were also recontacted during the second message push.

[XXXX image of size and dates of recruitment pushes]

Figure 11: Shows when recruitment messages were sent out and the responses to these messages.

The message protocol was as follows:

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<sup>12</sup>Hence, those users on social media for whom we did not have a phone number were not included

## Treatment

Be a citizen observer on May 7 & 8 because free & fair elections matter! Get R55 airtime for submitting all observations. Are you interested?

1. Yes
2. No

## Control

Be a citizen observer on May 7 & 8 because free & fair elections matter! Are you interested? U'll be reimbursed R5 airtime for submitting all observations

1. Yes
2. No

Users could take three actions after being set this message. First, they could choose not to response. Second, they could choose to respond by answering “No.” If participants did respond they were not interested by answering “No,” then they were

thanked for their participation. (HOW MANY PEOPLE XXX? time)

Third, users could respond they in the affirmative by answering "Yes." If they answered yes and agreed to be part of the election observer team, then they had to go through two additional steps. First, they had to agree to a second set of Terms and Conditions. Second, if they agreed to the Terms and Conditions, then we asked them a series of questions to be able to ascertain their voting district. This series of questions went to all users, both in the treatment and control groups and were designed to so that each question was more specific than the previous, in order to ensure that we could appropriately ascertain each individuals voting district. The questions, which were asked sequentially, were as follows:

2 b observer we need 2 know where u vote! Tell us the Province u live in:

1. EC
2. FS
3. GP
4. KZN
5. Limp
6. MP
7. NCape
8. N West
9. WCape

Thanks! Now we need ur town, suburb or district so we r sure of ur voting station

What is the name of your voting station?

Pls type out. Example: KUNI PRIMARY SCHOOL

We'll use the IEC lookup service 2 confirm ur voting station with ur ID. Pls enter ID number OR Write "NO" & we'll try 2 ensure u can still observe if we verify ur voting station

Those assigned to treatment group got a special message back about when they would be paid.

Thanks 4 volunteering 2 b an election observer! U will get R5 for airtime & R50 after u complete all tasks. U will get SMS

about where u will b observing soon!

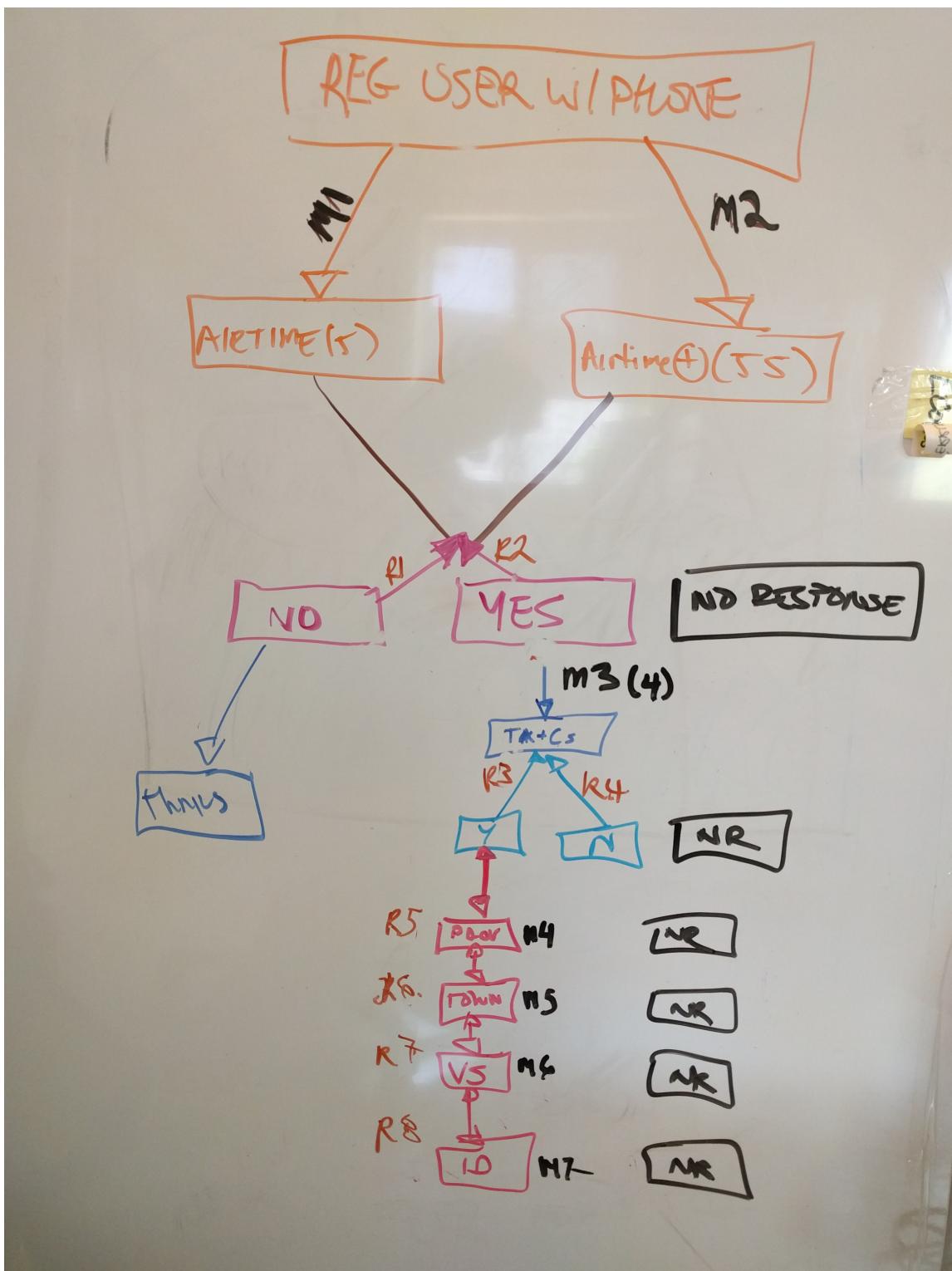


Figure 12: There needs to be a unified visual language to show these.<sup>35</sup> Here, we show all possible messages sent by VUMI and all possible responses. In order to complete the registration to become a monitor, users needed to send 6 response messages and would have received 6 messages (including the T&C message, which was broken up into four SMSes).

Once we collected potential monitors' information, it was necessary to determine whether or not the users' match to a particular voting station was of a high enough quality to enlist the individual as part of our digital observation team. We took two approaches to determining a high quality match. Regardless of the approach users had to fill out all the questions to be considered eligible. First, for those who had given us their voting id number, we ran this number through the IEC's look up service. If it contained a valid match, which agreed with the basic geographic information the respondent had given us, then this person was asked to part of the digital team. Second, for those users who chose not to give us their id, but for whom we could identify their voting station from the text they had entered, were also recruited to be part of our digital team. Our digital sample contained 1903 individuals.

The digital team was asked to a special set of post-election tasks – namely to go back to the polling station after the election was over to verify that the result was posted and take a picture. They were, however, also asked to fill out an election day report, which we also asked all other participants in the study to do.

#### [DESCRIPTIVE INFORMATION ON THE]

Figure 13: Depending on what goes in the main chapter, a map of where observers came from or something like that.

## 3.2 GOTV Messaging

We were also interested in how to use our platform to promote turnout. Hence, we ran an experiment with one treatment group and two control groups to test the efficacy of information treatments through the platform. We carried this out on the sub-sample of the people in our platform for whom we had a phone number and who had signed the Terms and Conditions by the time the messaging went out. This was XXX percent of XXX.

Within the sub-sample, everyone for whom we had a phone number when the message was sent out was randomized into one of three groups. In the control group, we sent no message. In the two treatment groups, the messaging read as follows:

### Treatment 1

Make a choice, have a voice, vote!

## Treatment 2

Make a choice, have a voice, vote! Your inked finger will show everyone that you have voted!

Treatment 2 wanted to measure whether social pressure potentially increased people's propensity to vote (XX Facebook experiment)

In order to measure the outcome of these measures, we sent everyone in our subsample a follow up SMS on XXX Date asking them whether they voted. The text read as follows

VIP wants to know if you voted? Reply 1 for Yes. Reply 2 for No.

If platform users responded, we asked them to dial into a separate USSD channel.

Join thousands of other South Africans and report about ur voting experience! Dial \*120\*4729\*2# t to have ur voice count.

If they responded no, we simply thanked them for their response with the following message:

Thanks for ur response

If they dialed back into the system, we asked respondents to questions to attempt to verify their voting behavior. These questions were designed to ameliorate potential social desirability bias in respondents' saying they had voted, when in reality they had not.

What colours were the ballots at your voting station?

1. white&pink
2. green&yellow
3. pink&blue
4. blue&yellow
5. none of above
6. skip

If your phone has a camera, pls mms us a photo of your inked finger to show your vote! U will be sent airtime for ur MMS. Send to

`vipvoice2014@gmail.com`

This whole process is depicted in Figure 14, which highlights the message flow within the GOTV campaign.

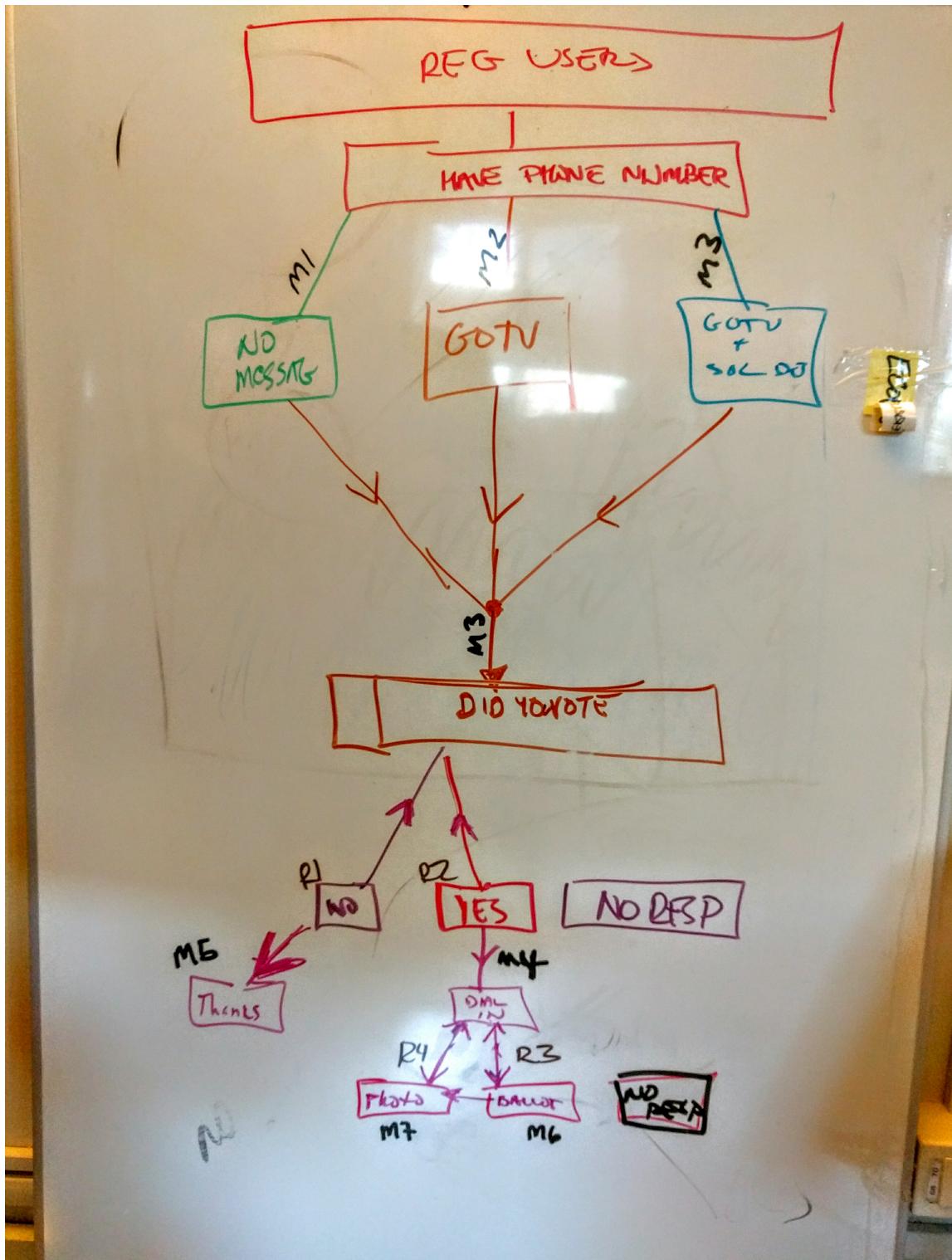


Figure 14: The messaging protocol for the GOTV campaign. Each box is proportional to the number of users for whom we had a phone number in the cell. Arrows going downward depict outbound messages we sent to users, whereas upward arrows show messages that users send back to the system. Each outbound message is labeled with an M and each R message is labeled with an R. I am not sure how to best represent No message. I should probably not have an M1 by it. This visual language needs to be the same as the visual language for the recruitment protocol for digital monitors

[DESCRIPTIVE STATS?]

### 3.3 E-day Monitoring

On election day itself, everyone in the platform (including those who we had recruited as digital observers) who had signed the Terms and conditions and for whom we had a phone number (including all those who entered on other channels, but who provided us a phone number) was sent an SMS encouraging them to dial into a USSD number for free to tell us about their election day experience. The message read as follows:

Join thousands of other South Africans and tell us about your experience on election day! Dial\*120\*4729\*1# It's free to dial!

If users timed out of the system, they got the following message:

Hi VIP! Make sure ur voice is heard. Please dial back in to \*120\*4729\*1# to complete ur election experience questions! It's FREE. VIP: Voice!

The questions themselves were designed to ask about election day problems known from the African context, as well as questions asking people to rate the process. The wording of the questions were the following:

How long are voters waiting in queue b4 voting?

1. less than 10min
2. 10-30 min
3. 30min to 1hr
4. more than 1hr
5. skip

Did the voting station have all necessary materials and working equipment?

1. yes
2. no
3. don't know
4. skip

How would you rate the overall performance of IEC officials at the

voting station?

1. excellent
2. good
3. fair
4. poor
5. skip

Did you observe party agents campaigning outside of the voting station?

1. yes
2. no
3. skip

Please report the environment outside the polling station:

1. very tense
2. somewhat tense
3. not tense
4. skip

Did you observe or hear about any violence in or around the polling station?

1. yes
2. no
3. skip

Did you observe or hear about any incidents of intimidation in or around the polling station?

1. yes
2. no
3. skip

Did the voting station provide adequate privacy to ensure ballot secrecy?

1. yes

2. no
3. skip

[IMAGES – DEPENDING ON WHAT GOES IN THE MAIN TEXT]

Figure 15: Whatever descriptives we want in table or graph format....We should probably show differences between our recruited E-day monitors and the other people.

### 3.4 Digital Observers: Follow-up

Our digital observers, of whom we ultimately recruited 1,903, were also asked to go back the day after the election to see if the results were properly posted. One potential measure of fraud, as presented in XXXX, is whether the official tally was posted outside of the polling station. In order to collect this information, observers were asked to return to the polling station the next day.

We sent our digital observers two sets of reminder messages. The first message was sent twice on XX (Saturday and Wednesday) and the second message was sent early in the morning the day after election day — Thursday May, 8.

Hi Citizen Observer! Ull b asked to see the results form at ur voting station the day after the election. We'll SMS u Thursday to get the result.

Hi Citizen Observer! Pls go see the results form at ur voting station now. We'll SMS to get your report and share with fellow citizens!

On Thursday, May 8th we sent out the following messages. We sent the messages in order and respondents only received the subsequent message, if they replied to the immediately preceding message. We decided to also ask for photos of the tallies, though it was not expected that respondents would be able to send a photo of the tally, since having a smart phone was not a requirement. We also had to ask respondents to send these photos vial email because the VUMI system itself had no way of storing images.

Hi Citizen Observer! Please answer when ur at station ready to make ur report: Is national results form posted at ur voting station?

reply SMS 1 Yes 2 No

Pls SMS ANC vote total from national results form at ur voting station if you can't read SMS "NR"

Thx for ur response! You will get ur airtime shortly. Pls send a MMS photo of the national results form to [vipvoice2014@gmail.com](mailto:vipvoice2014@gmail.com). R20 airtime if u send photo!

Thanks! You will receive your airtime soon!

[ We found XX, YY, ZZ. SUMMARY STATISTICS DEPENDING ON WHAT GOES IN REALLY CHAPTER]

### 3.5 Phase 4: Endline

The endline VIP quiz started on XXX after the election and was designed to follow up with respondent about their views of the election after it had occurred.

We sent the following message to ask users to fill out the endline survey on Mxit and via SMS. For phone users we asked users to dial in with a USSD.

| Mxit   | SMS  |
|--|--|
| Thanks for joining VIP:Voice 2014 and reporting on Election activity! Let us know what u thought by answering a few questions & stand a chance to WIN airtime! 1. To begin 2. No thanks. | Thx 4 joining VIP:Voice & reptrng on the Election! Let us kno wht u think! Answr a few qstns & stand chance 2 WIN airtime! Dial *120*4729*3# for FREE. |

If users timed out of the USSD session, they got the following message back via SMS:

Hi VIP! Make sure ur voice is heard. Please dial back in to \*120\*4729\*3# to complete ur election experience questions! It's FREE.

VIP: Voice!

When users entered the VUMI dialogue system, they received the following questions:

How do you feel about democracy in SA?

1. vry satisfied
2. smewht satisfied
3. smewhat disatisfied
4. vry disatisfied
5. skip

Do u think the outcome of the election was free and fair?

1. strongly agree
2. somewht agree
3. somewht disagree
4. strongly disagree
5. skip

Are u happy with the election results?

1. strongly agree
2. somewht agree
3. somewht disagree
4. strongly disagree
5. skip

In the next 5 years, do u think life for people like u will be better, worse, or stay the same?

1. better
2. worse
3. stay same
4. skip

In order to further incentivize participation in the endline survey, since response rates were low, the following messages were sent out XXX, YYY, AND ZZZ

## Mxit

Thx 4 joining VIP:Voice & reprtng  
on the Election! Let us kno wht u  
think! Answr a few qstns & stand  
chance 2 WIN artime! 1. To begin  
2. No thanks

Figure 16 shows XXX and YYYY.

[DESCRIPTIVE STATISTICS DEPENDING ON WHAT IS IN THE MAIN DOCUMENT]

Figure 16: Descriptive statistic of endline, depending on what goes in the main text.

## SMS

Thx 4 joining VIP:Voice & reprtng  
on the Election! Let us kno wht  
u think! Answr a few qstns &  
stand chance 2 WIN artime! Dial  
\*XXX\*XXXX# for FREE.